

UNIVERSITY OF KWAZULU-NATAL

**FACTORS INFLUENCING STUDENT ATTRITION AT
UMGUNGUNDLOVU TECHNICAL AND VOCATIONAL
EDUCATION AND TRAINING COLLEGE**

By

Bongani Gwala

211555146

**A dissertation submitted in partial fulfilment of the requirements for the degree of
Master of Commerce in Management**

**School of Management, IT and Governance
College of Law and Management Studies**

Supervisor: Dr. S. O. Atiku

2017

DECLARATION

I Bongani Gwala declare that

- (i) The research report in this dissertation/thesis, except where otherwise indicated, is my original research.
- (ii) This dissertation has not been submitted for any degree or examination at any other university.
- (iii) This dissertation does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
- (iv) This dissertation does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
 - a) Their words have been re-written but the general information attributed to them has been referenced;
 - b) Where their exact words have been used, their writing has been placed inside quotation marks, and referenced.
- (v) Where I have reproduced a publication of which I am author, co-author or editor, I have indicated in detail which part of the publication was actually written by myself alone and have fully referenced such publications.
- (vi) This dissertation does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged, and the source being detailed in the dissertation and the References section.

Signed: _____

ACKNOWLEDGEMENT

- Most important, all honour and glory to Jesus Christ, my saviour for bringing me this far in life and for continued strength, grace and support.
- I would like to express my sincere appreciation to Dr Atiku for his guidance, encouragement and assistance in the presentation of the finer details of this dissertation.
- This dissertation would not have been possible without the respondents, a word of gratitude to all participants in this study
- To my fiancée Sindi and my unborn son Sisekelo, my love for you gave me strength to accomplish this journey.
- To my colleagues Ms Rajkumar and Mr Motaung thank you for always believing in me and encouraging me despite work challenges and obstacles I encountered along this journey

ABSTRACT

College qualification and post-secondary education provides individuals with the necessary skills to actively participate in the labour force. Without technical and labour skills individuals often find it difficult to obtain employment. Institutions of higher education such as Technical and Vocational Education and Training (TVET) Colleges and Universities offer such skills. TVET Colleges and universities often fail to ensure that all persons enrolled for different instructional programmes and qualifications end up obtaining the appropriate qualification. This study serves to describe factors influencing student attrition and the extent of influence at Umgungundlovu TVET College.

In order to study student attrition at Umgungundlovu TVET College four objectives were set and this study incorporated a descriptive quantitative study which sought to describe and understand factors influencing student attrition at Umgungundlovu TVET College. A sample of 370 students was taken at the Msunduzi and Midlands campuses of Umgungundlovu TVET College. Data was collected using a structured questionnaire and analysed using descriptive and inferential statistical techniques.

The results revealed that academic integration, social integration and organisational influences were most reliable in measuring students' attrition at Umgungundlovu TVET College. Environmental pull factors were not very reliable in measuring the students' attrition rate. Influences such as lack of study skills, limited practical work and theoretical approach to vocational education are cited as some of the factors that influence student attrition. Recommendations include that all TVET Colleges should have an enrolment management plan, which should involve all the stakeholders in the institution.

Keywords: academic, attrition, dropout, enrolment, integration, retention, students

TABLE OF CONTENTS

DECLARATION	II
ACKNOWLEDGEMENT	III
ABSTRACT	IV
TABLE OF CONTENTS	V
LIST OF TABLES	IX
LIST OF FIGURES	X
CHAPTER ONE	1
1.1 INTRODUCTION	1
1.2 BACKGROUND OF THE STUDY	2
1.3 RESEARCH PROBLEM	3
1.4 RESEARCH OBJECTIVES	4
1.5 RESEARCH QUESTIONS	4
1.6 MOTIVATION FOR THE STUDY	5
1.7 SIGNIFICANCE OF THE STUDY	5
1.8 SCOPE AND LIMITATIONS OF THE STUDY	6
1.9 STRUCTURE OF DISSERTATION	6
1.9.1 Chapter one: Introduction	6
1.9.2 Chapter two: Factors influencing student attrition in TVET Colleges.....	6
1.9.3 Chapter three: Research design and methodology	7
1.9.4 Chapter four: Data analysis, interpretation and discussion of findings	7
1.9.5 Chapter 5: Summary, Recommendations and Conclusion	7
1.10 CONCLUSION	7
CHAPTER TWO: FACTORS INFLUENCING STUDENT ATTRITION IN TVET COLLEGES	8
2.1 INTRODUCTION	8
2.2 TVET COLLEGES.....	8
2.3 DEVELOPMENT OF TVET COLLEGES IN SOUTH AFRICA	9
2.4 ROLE AND CHALLENGES OF TVET COLLEGES IN SOUTH AFRICA	10
2.5 STUDENT ATTRITION.....	13
2.6 STUDENT BACKGROUND FACTORS	14
2.6.1 Education plans and goals	14
2.6.2 College pre-entry attributes	15

2.7 ORGANISATIONAL STRUCTURE VARIABLES	16
2.7.1 Admission	17
2.7.2 Courses offered	18
2.7.3 Rules and Regulations	19
2.7.4 Academic Services	19
2.7.5 Financial Aid	20
2.7.6 Institutional Marketing	21
2.8 ACADEMIC INTEGRATION FACTORS	22
2.8.1 Relationship with Faculty	23
2.8.2 Study Skills	24
2.8.3 Alternative Choices and Academic Advice	24
2.8.4 Absenteeism	25
2.9 SOCIAL INTEGRATION FACTORS	26
2.9.1 Close friends on Campus	26
2.9.2 Social Support System	27
2.9.3 Informal contact with faculty	27
2.9.4 Quality of Campus Life and Activities	28
2.10 ENVIRONMENTAL PULL FACTORS	29
2.10.1 Family responsibilities and influences	29
2.10.2 Health	30
2.10.3 Employment	31
2.11 STUDENT SUCCESS AND RETENTION	32
2.12 STRATEGIC ENROLMENT MANAGEMENT	34
2.13 THEORIES AND MODELS ON STUDENT RETENTION	35
2.14 THEORETICAL FRAMEWORK	36
2.15 CONCLUSION	39
CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY	40
3.1 INTRODUCTION	40
3.2 RESEARCH DESIGN	40
3.2.1 Quantitative research	41
3.2.2 Characteristics of quantitative research	42
3.2.3 Descriptive design	42
3.3 STUDY SITE	43
3.4 RESEARCH POPULATION, SAMPLING AND SAMPLE	43
3.4.1 Target population	44
3.4.2 Sampling strategy	44
3.4.3 Stratified random sampling	45

3.4.4 <i>Sample and sample size</i>	46
3.5 DATA COLLECTION	47
3.5.1 <i>Data collection instrument</i>	47
3.5.1.1 Characteristics and advantages of a questionnaire	48
3.5.2 <i>Reliability and validity of the research instrument</i>	49
3.6 DATA ANALYSIS	49
3.7 ETHICAL CONSIDERATIONS.....	50
3.7.1 <i>Permission to conduct the study</i>	51
3.8 LIMITATION OF THE STUDY.....	51
3.9 CONCLUSION	52
CHAPTER FOUR: DATA ANALYSIS, INTEPRETATION AND DISCUSSIONOF FINDINGS	53
4.1 INTRODUCTION	53
4.2 PRESENTATION AND DISCUSSION OF FINDINGS RELATED TO THE PARTICIPANTS DEMOGRAPHIC DATA AT UMGUNGUNDLOVU TVET COLLEGE.....	54
4.3 RELIABILITY OF THE RESEARCH INSTRUMENT.....	61
4.3.1 <i>Influence of organisational factors on student attrition at Umgungundlovu TVET College</i>	62
4.3.1.1 College rules and regulations	63
4.3.1.2 College qualification requirements	64
4.3.1.3 Communication and institutional marketing.....	65
4.3.1.4 Financial Aid	66
4.3.1.5 Academic services and participative management	67
4.3.2 <i>The influence of academic integration factors on student attrition</i>	68
4.3.2.1 Quality of tuition and teaching.....	69
4.3.2.2 Study skills and major certainty.....	70
4.3.2.3 Absenteeism.....	70
4.3.3 <i>Influence of social integration factors on student attrition at Umgungundlovu TVET College</i>	71
4.3.3.1 Interpersonal relationships on campus	71
4.3.3.2 Social Support System	72
4.3.3.3 Quality of Campus Life and Activities	73
4.3.4 <i>Influence of environmental pull factors on student attrition at Umgungundlovu TVET College</i>	74
4.3.5 <i>Student attrition at Umgungundlovu TVET College</i>	75
4.4 RELATIONSHIP BETWEEN THE SOCIAL CHARACTERISTICS AND THE ATTRITION VARIABLES.	77
4.4.1 <i>Likelihood of dropping out because of lack of student-lecturer interactions</i>	78
4.4.2 <i>Likelihood of dropping out of college because of inadequate social support on Campus</i>	80
4.4.3 <i>Likelihood of dropping out of college of college because of poor college administration</i>	84
4.4.4 <i>Likelihood of dropping out of college if the respondent can find a fulltime job</i>	86
4.5 CONCLUSION	88

CHAPTER FIVE: SUMMARY, RECOMMENDATIONS AND CONCLUSION	89
5.1 INTRODUCTION	89
5.2 SUMMARY OF FINDINGS FROM THE LITERATURE REVIEW AND CONTRIBUTION OF THE STUDY	90
5.3 SUMMARY OF FINDINGS FROM THE QUANTITATIVE STUDY	92
5.4 RECOMMENDATIONS.....	94
5.5 LIMITATIONS OF THE STUDY	95
5.6 SUGGESTION FOR FUTURE RESEARCH	95
5.7 CONCLUSION	96
REFERENCES.....	97
APPENDIX A: INFORMATION SHEET AND CONSENT TO PARTICIPATE IN RESEARCH.....	117
INFORMATION SHEET AND CONSENT TO PARTICIPATE IN RESEARCH.....	117
APPENDIX B: CONSENT TO PARTICIPATE.....	119
APPENDIX C: PARENT/GUARDIAN INFORMED CONSENT	120
APPENDIX D: QUESTIONNAIRE	122
APPENDIX E: PERMISSION TO PARTICIPATE	128
APPENDIX F: ETHICAL APPROVAL.....	129

LIST OF TABLES

TABLES	PAGE
Table 2.1: Number of students enrolled in Public and Private Colleges from 2011 to 2014.	11
Table 2.2: Number of students in Public TVET Colleges who completed national qualifications in year 2014.....	12
Table 3.1: Sampling frame.....	46
Table 4.1a: Table of cross tabulation between gender and marital status	54
Table 4.1b: Table of cross tabulation between income and marital status	54
Table 4.2a: Table of cross tabulation between gender and age-group.....	55
Table 4.2b: Table of cross tabulation between income and age-group.....	55
Table 4.3a: Table of cross tabulation between gender and race	56
Table 4.3b: Table of cross tabulation between income and race	56
Table 4.4a: Table of cross tabulation between gender and field of study.....	57
Table 4.4b: Table of cross tabulation between income and field of study	57
Table 4.5a: Table of cross tabulation between gender and mode of study	58
Table 4.5b: Table of cross tabulation between income and mode of study.....	58
Table 4.6a: Table of cross tabulation between gender and parent/guardian education level ..	59
Table 4.6b: Table of cross tabulation between income and parent/guardian education level .	59
Table 4.7: Cronbach’s alpha for the factors influencing students’ attrition rate	61
Table 4.8: Table of responses to organisational factors.....	62
Table 4.9: Table of responses to academic integration factors	68
Table 4.10: Table of responses to social integration factors.....	71
Table 4.11: Table of responses to environmental pull factors	74
Table 4.12: Table of students’ attrition factors	75
Table 4.13: Regression coefficients for the predictor variables for students dropping out due to lack of students-lecturer interactions	78
Table 4.14: Regression coefficients for the predictor variables for students dropping out due to inadequate social support in campus.....	80
Table 4.15: Regression coefficients for the predictor variables for students dropping out due to poor college administration.....	84
Table 4.15 continued.....	85
Table 4.16: Regression coefficients of the predictor variables for students dropping out because of securing a fulltime job	87

LIST OF FIGURES

FIGURES	PAGE
Figure 1.1: Connection between the public, the education system and the workforce in South Africa.....	3
Figure 2.1: Bean’s (1990, p. 152-153) Model of Student Attrition Model.....	38
Figure 4.1: The numbers of male and female students enrolled at Umgungundlovu TVET College in Semester two of 2016.....	60

CHAPTER ONE

1.1 Introduction

Most effective workforces require technical and vocational skills for personal and national development. Basic literacy alone no longer suffices for active participation in a knowledge-based economy like South Africa (UNESCO- UNEVOC, 2009). A knowledge-based economy requires highly skilled employees (Akoojee, 2007). Crucial skills required in the South African economy are technical skills, vocational skills and artisanal skills (Department of Higher Education, 2014). According to UNESCO-UNEVOC (2009, p 576) “Colleges for Technical and Vocational Education and Training (TVET) are mainstay providers of such skills”.

TVET Colleges target young adults who, in the secondary schooling phase, opt for a vocational path instead of an academic path, as well as individuals who want to change careers and upgrade skills. The colleges provide training opportunities to assist the unemployed to become skilled (Department of Higher Education Training, 2013). The South African Government has put an emphasis on strengthening TVET Colleges so that they become institutions of choice, with the capacity for, the training of artisans and other mid-level skills. According to DHET (2013, p 12) “It is the intention of the Higher Education and Training ministry to improve the throughput rate at TVET Colleges and to produce 30 000 artisans per year by 2030”.

It is considered that this anticipated throughput rate will be unattainable considering the high student attrition rates at the South African TVET Colleges (DHET, 2014). This study investigates the factors that influence the withdrawal of students in TVET Colleges prior to completing their studies. Critical performance indicators that all education systems consider are output and the ability to deliver the relevant skills needed by the labour force (Ali et.al., 2009; DBE, 2015). South African TVET Colleges have the lowest certification rate for all of their instructional programs (DHET, 2014). This sector is seriously challenged by exceptionally low rates of students who obtain their qualification and high attrition rates. Given the substantial public investment in the sector, inability to increase enrolments in line

with long-term targets and high attrition rates represent a considerable threat to the effectiveness of this investment.

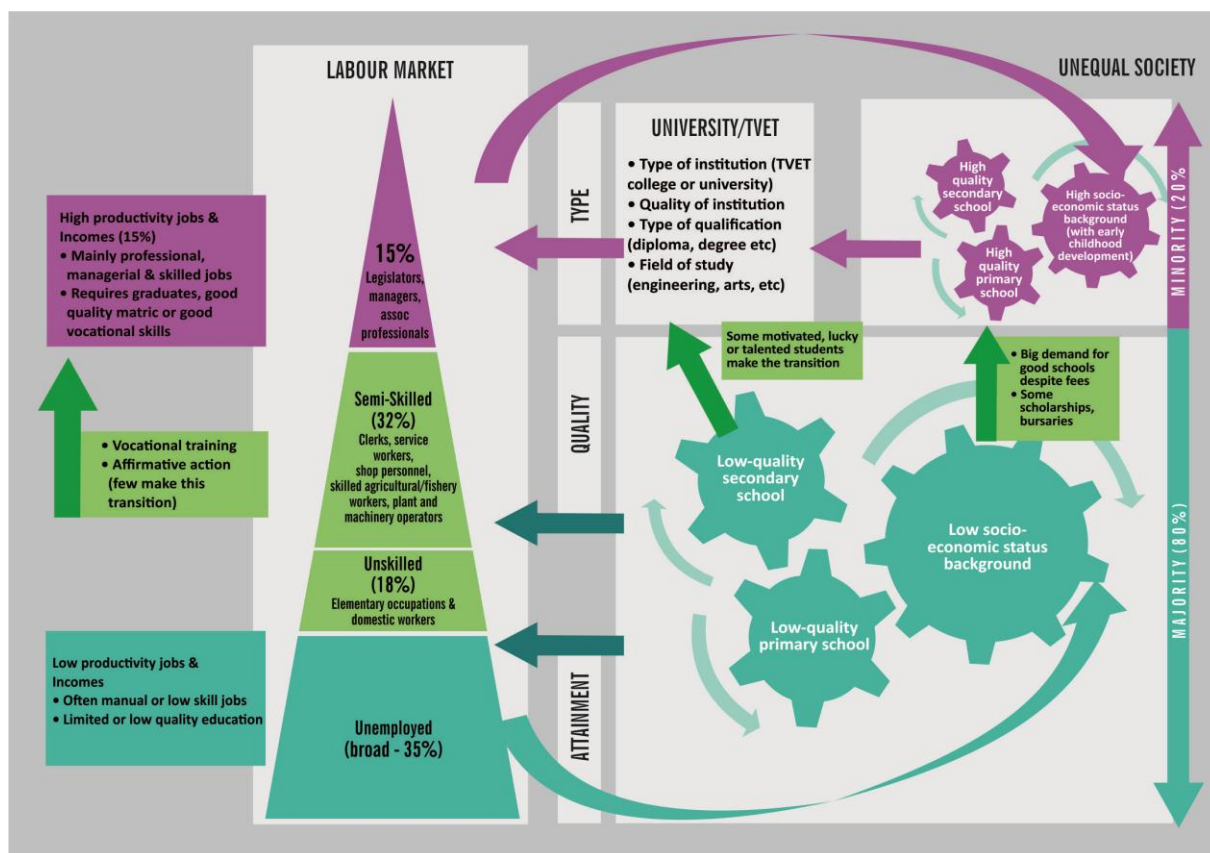
1.2 Background of the Study

Institutions of higher education across the globe find themselves having difficulty sustaining student enrolments. This has led to the South African education ministry developing a National Plan for Higher Education aiming at “increasing the overall participation rate in tertiary institutions in order to maintain the institutions’ viability in terms of student enrolments, revenue and expenditure patterns, administration and governance capacities” (Department of Education, 2001, p. 6). Despite the South African government’s plan, student attrition is a significant problem for the country’s education system.

For the past decades student attrition has been subjected to heightened investigation, but it still remains and presents as the main problem for institutions of higher education across the globe. Levine (as cited in DeRemer, 2002) notes that the most immediate way to maintain enrolment is to deal with student attrition. According to Metzner and Bean (1987) attrition has huge cost implications for the state, the institution and students. Student numbers play a pivotal role on an institution’s viability. “Financing an educational institution generally depends upon the number of students enrolled in that particular institution” (DeRemer, 2002, p. 1).

As a result of high student attrition rates, the country is at risk of not benefiting from the human resource talent vital for the economic, social and intellectual wellbeing of our rapidly changing society (Spaull, 2015). Inadequate education system output has direct effects on the social and economic growth of the country. The inequalities in society will remain if poor education system output is not addressed. According to Jensen (2001, p. 1) “obtaining a post-secondary school qualification not only has economic consequences for an individual, but it also increases the wellbeing in terms of civic engagement”. Figure 1.1 indicates a connection between the South African education system and labour market.

Figure 1.1: Connection between the public, the education system and the workforce in South Africa



Source: Adapted from (Spaull, 2015, p. 38)

1.3 Research Problem

With the above contextual background information it will be argued that the student attrition rate is one of the key challenges facing the South African education system. Scott et al. (as cited in Murray, 2014) indicate that more than a quarter of all students registered in the South African Institutions of Higher Education drop out during their first year of enrolment. “The South African graduation rate is one of the lowest in the world” (Lesteka & Maile, 2008).

Student attrition is well documented in South Africa, however, considerable attention and focus is based on university and school dropout rates. Less attention is directed at TVET Colleges’ attrition rates. Yet, the fifth outcome of the National Development Plan states the importance of TVET Colleges as a driving force in the creation of artisans and vocational skills for the workforce (National Planning Commission, 2011). Experiences provided by

colleges help students to integrate academically and socially with the institution and subsequently encourages students to stay enrolled (Tinto, 1993; Bean, 1990).

This study seeks to define factors contributing to the student attrition rate at Umgungundlovu TVET College. Identifying factors leading to attrition can aid students and Umgungundlovu TVET College to deal with attrition by instituting appropriate enrolment management strategies. According to Hossler and Bean (1990, p. 5) “enrolment management is an organisational concept and a systematic set of activities designed to enable educational institutions to exert influence over their student enrolment, organised by strategic planning and supported by institutional research, enrolment management activities concern student college choice, transition to college, student attrition and retention and student outcomes”.

1.4 Research Objectives

The aim of this study is to establish the factors influencing the student attrition rate at Umgungundlovu TVET College. The following are specific objectives of this study:

- To determine the organisational factors that influence student attrition at Umgungundlovu TVET College;
- To ascertain the extent to which academic integration factors influence student attrition at Umgungundlovu TVET College;
- To establish the extent to which social integration factors influence student attrition at Umgungundlovu TVET College;
- To explore environmental pull factors influencing student attrition at Umgungundlovu TVET College.

1.5 Research Questions

To fully address the research problem for this study, the following specific questions are examined:

- What are the organisational factors that influence student attrition at Umgungundlovu TVET College?

- To what extent do academic integration factors influence student attrition at Umgungundlovu TVET College?
- To what extent do social integration factors influence student attrition at Umgungundlovu TVET College?
- What is the environmental pull factors influencing student attrition at Umgungundlovu TVET College?

1.6 Motivation for the study

The rationale for this study was based on the need to reduce the level of student attrition at TVET colleges in South Africa, specifically with reference to Umgungundlovu TVET College. The research sought to establish factors influencing student attrition, resulting in plausible recommendations aimed at maintenance of high levels of student retention and the sustainability of TVET colleges. Lastly, the motivation for this study was a result of the setback caused by student attrition noted by the National Development Plan 2030.

1.7 Significance of the study

Studies aimed at gathering information concerning student attrition and exploring possible ways of managing student enrolments and attrition at TVET Colleges are important. An understanding of factors leading to student attrition can aid government and institutions of higher education in retaining students in the education system by recommending the correct intervention measures (Medellin, 2015).

The findings of this study will contribute to student success and retention at TVET Colleges and other institutions of learning. The findings of this study are aimed at helping policy-makers and administrators in creating appropriate strategic enrolment management plans aimed at retaining students in the education system. Identifying the roots of the problem, which in this case are the influences leading to attrition, can help policy makers and administrators in education institutions to mitigate such problems. Lessons learnt from this study can be applied to other institutions, which may well have similar conditions leading to student attrition. This study posits student retention as the shared responsibility of all

involved stakeholders. This study sheds light and further pronounces on the importance of academic and social integration in the TVET Colleges in order to make the learning experience beneficial and fruitful to students. Academic and social integration at TVET Colleges is an under-researched topic that not only affects students but also educational institutions, the labour force and the future skills plans of the country. It is intended that this study will contribute in the improvement of the return on the investment made by the South African government in education, in particular TVET sector.

1.8 Scope and limitations of the study

The proposed study is restricted to two campus of Umgungundlovu TVET College out of six possible campuses in the college. This study does not claim that the findings of the study will apply equally to all institutions of higher learning. Although there are 50 public TVET Colleges in South Africa, they were not included in the study due to time and cost considerations. This study views attrition from the institution as opposed to the systematic perspective. Therefore answers may suggest potential reasons for student attrition at a particular institution, and may not be applicable to the question of why students fail to achieve their educational goals

1.9 Structure of dissertation

This study is divided into the following chapters:

1.9.1 Chapter one: Introduction

This is an introductory chapter and it presents the background of the study, the research problem, the research questions and the objectives. This chapter further presents the motivation of the study; its significance and it outlines the scope and the limitations of the study.

1.9.2 Chapter two: Factors influencing student attrition in TVET Colleges

Chapter two presents literature on student attrition and provides insight into different factors that lead to student attrition in institutions of higher learning. Role and challenges of TVET

Colleges in South Africa are explored. In this chapter strategic enrolment management is defined and a theoretical framework on student attrition is presented.

1.9.3 Chapter three: Research design and methodology

This chapter presents the research design and methodology used in the study. The paradigm within which the study was conducted is outlined. This chapter further outlines the study site, the target population, and the sampling strategy employed in the study. Data collection and data analysis is described. Ethical considerations and limitations of the study are also presented.

1.9.4 Chapter four: Data analysis, interpretation and discussion of findings

This chapter presents an analysis and interprets data collected during the study. The Statistical Package for Social Sciences (SPSS) was used to analyse and interpret data. The findings are discussed to create meaningful information and knowledge.

1.9.5 Chapter 5: Summary, Recommendations and Conclusion

This is the last chapter and it provides the conclusion of the study by summing up the findings of the study and the contribution of the study. This chapter also presents recommendations as well as limitations of the study. Finally suggestions for further research are presented.

1.10 Conclusion

This chapter presents conclusions reached as a result of the study; it also outlines the background to the study, the research problem, the research objectives and questions. This chapter further states the motivation and significance of the study. Scope and limitation of the study are also presented in this chapter.

The following chapter presents literature review and theoretical background of factors influencing student attrition in TVET Colleges.

CHAPTER TWO: FACTORS INFLUENCING STUDENT ATTRITION IN TVET COLLEGES

2.1 Introduction

TVET is an acronym for Technical and Vocational Education and Training. This chapter gives an outline of the TVET colleges in South Africa and the challenges faced by these institutions in particular student attrition, retention and enrolment. Theories on student retention are reviewed as they relate to student attrition. The chapter further reviews previous studies on factors viewed to influence student attrition in institutions of learning. The factors reviewed are grouped into four themes consisting factors related to student background, organisational structure variables, academic integration factors and social integration factors. The chapter conclude by reviewing literature on student retention and strategic enrolment management, which might be a solution to student attrition at TVET colleges in the Republic of South Africa.

2.2 TVET Colleges

In South Africa the TVET colleges are a form of institution that offers knowledge, skills, values and positive attitudes. In addition to general education; they are concerned with equipping students by providing the practical and vocational skills required in different sectors of the economy as well as in their social life (UNESCO, 2010b). TVET colleges provide different forms of education, but the main focus is the provision of technical, vocational and apprentice training. The TVET colleges' education approach differs from that of schools by being education driven by demands derived from the labour market. Tripney et al. (2013) are of the view that although there is no universal definition of the phenomenon, most scholars and TVET models across the globe have accepted the UNESCO definition as the description of this subsector in education.

2.3 Development of TVET Colleges in South Africa

In South Africa, TVET colleges have undergone a series of changes of names, administration, legislation and governance. In a thesis by Akoojee (2007), these changes are attributed to policies that were put in place by the democratic government to address the imbalances in the education system inherited from the apartheid government's regime. Prior to 1994 colleges were known as technical colleges (DOE, 1995). The term Further Education and Training (FET) colleges came into being after the merger of different technical colleges to form single multi-disciplined establishments. This transition was a result of the Department of Education's White paper 4 on Further Education and Training of 1998 and subsequently the Further Education and Training Act number 98 of 1998 (Akoojee, 2007).

According to DOE (1998a, p. 1), the term FET is defined in the 1998 White Paper on Further Education and Training to "include learning programmes that are registered on the NQF level 2 to 4 and that correspond with the present Grade 10 to 12 in the school system and N1 to N3 in technical college system". This characterisation was driven by the inclusion of the technical colleges' programmes in the South African National Qualification Framework (NQF), and to provide students with a means to seek vocational education as an alternative to academic education. During year 2000 action was taken in response to the Further Education and Training Act no 98 of 1998 which resulted in the restructuring of 152 technical colleges, which merged them into 50 public FET colleges (DOE, 1998a). The restructuring process was concluded in 2003 and was supported by the cash injection of R1.9 billion from National Treasury as a recapitalisation programme intended to improve the old infrastructure inherited from technical colleges (Gewe, 2010a).

In 2006 the FET colleges act was promulgated and it applied to all public and private colleges. Its aim was "to provide for the regulation of further education and training by providing for the establishment, governance and funding of public further education and training colleges and employment of staff" (RSA, 2006, p. 1). The act gave FET colleges autonomy through the establishment of college councils to regulate the functioning and governance of FET colleges. New qualifications were introduced at FET colleges and include the introduction of the National Certificate (Vocational) (NCV) programme in 2007. The new programmes were introduced to address the ineffectiveness and shortcomings of the old technical colleges' qualifications (Gewe, 2010b).

A decision was taken by the government after the 2009 elections to separate the education ministry into two; basic education and higher education and training. Following that decision FET colleges, post-school education, universities and adult education centres fell under the curatorship of the Department of Higher Education and Training (DHET). During this time FET college students were also supported by a National Student Financial Aid Scheme (NSFAS), an initiative by government to increase enrolment at FET Colleges and to make FET colleges attractive to the youth and the public (DHET, 2013). Part of the DHET's mandate is to increase the number of artisans in the country in response to pressure from industry resulting from a shortage of artisans in the country. An announcement was made by DHET in 2014 that FET colleges would from then on be called TVET colleges to clearly define their role and character in the South African education system, whilst aligning their existence to international practice (DHET, 2014).

2.4 Role and challenges of TVET Colleges in South Africa

TVET colleges provide technical and vocational education and training to individuals who have completed grade 9 and grade 12 and award National Vocational Certificates and National N Diplomas on successful completion of training (DHET, 2016). “The strategic departmental objective for the public TVET and private colleges sector is to increase access to, and improve success in programmes that lead to intermediate and high-level learning” (DHET, 2016, p. 24). The objective is to increase access to and improve success in TVET colleges, but there are systematic and structural challenges that plague the system including low learner performance, a low certification rate, a high student attrition rate and institutional instabilities.

Table 2.1 below indicate the completion rate of students in both Public TVET and private colleges for the years 2011 to 2014. This is an indication of a severe and acute problem in the sector as it indicates declining completion rates in these institutions.

Table 2.1: Number of students enrolled in Public and Private Colleges from 2011 to 2014.

Year	NC(V) Level 4			Report 190/1 N3			Report 190/1 N6		
	Number wrote	Number completed	Completion rate (%)	Number wrote	Number completed	Completion rate (%)	Number wrote	Number completed	Completion rate (%)
2011	17 836	7 638	42.8	2 909	1 366	47.0	2 428	1 488	61.3
2012	15 334	6 018	39.3	9 928	3 724	37.5	8 735	2 902	33.2
2013	22 470	8 346	37.1	65 788	26 186	39.8	52 052	18 584	35.7
2014	22 705	7 838	34.5	74 710	35 782	47.9	68 678	29 071	42.3

Note 1: The number of students who WROTE and COMPLETED includes only those who were eligible to complete qualifications (part or full) during the respective 2011-2014 academic years.

Note 2: “Number wrote “refers to the number of students who wrote the relevant examination in 2011-2014 academic years. This number excludes students who wrote individual subjects but who were not eligible to complete the relevant qualifications in 2014.

Note 3: “Completion rate refers to the number of students who successfully completed the relevant qualification in the respective 2011-2014 academic years expressed as a percentage of the number of students who were eligible to complete the qualification and wrote examinations.

Source: DHET (2016, p. 26).

According to DHET (2016, p. 26) the expansion and development of the TVET college sector remain a strategic priority of Department of Higher Education. Such expansion is driven by skills shortage and a lack of artisans in the country. It is a priority of South Africa to change the current trend in the education system, where a larger number of students are enrolled in Universities rather than in TVET Colleges (DHET, 2013). Though, the number of students enrolled at TVET colleges is increasing, student retention is a significant problem.

Table 2.2: Number of students in Public TVET Colleges who completed national qualifications in year 2014.

Year	NC(V) Level 4			Report 190/1 N3			Report 190/1 N6		
	Number wrote	Number completed	Completion rate (%)	Number wrote	Number completed	Completion rate (%)	Number wrote	Number completed	Completion rate (%)
2011	17 836	7 638	42.8	2 909	1 366	47.0	2 428	1 488	61.3
2012	15 334	6 018	39.3	9 928	3 724	37.5	8 735	2 902	33.2
2013	22 470	8 346	37.1	65 788	26 186	39.8	52 052	18 584	35.7
2014	22 705	7 838	34.5	74 710	35 782	47.9	68 678	29 071	42.3

Note 1: The number of students who REGISTERED, WROTE and COMPETED includes only those who were eligible to complete qualifications (part or full) during the 2014 academic year.

Note 2: “Number Registered” refers to the number of students who registered for the relevant Examination in 2014 and were eligible to complete the relevant qualifications during the 2014 academic year. This number excludes students who registered to write individual subjects but were not eligible to complete the relevant qualification in 2014.

Note 3: “Number Wrote” refers to the number of students who wrote the relevant examination in 2014 and were eligible to complete the relevant qualifications during the 2014 academic year. This number excludes students who wrote individual subjects but who were not eligible to complete the relevant qualification in 2014.

Note 4: “Number Completed” refers to the number of students who were eligible to complete and successfully completed the relevant qualifications in the 2014 academic year. This number excludes students who may have passed individual subjects but were not eligible to complete the relevant qualifications in 2014.

Source: DHET (2016, p. 34)

Table 2.2 indicates that more than 127 000 students were enrolled for TVET colleges qualifications, 121 434 students attempted to write the final examination and out of all those who wrote, less than half completed their qualifications (DHET, 2016). Such performance indicates that government plans to strengthen and expand the sector are not working. DHET (2013, p. 12) believe that the:

“...key objective in strengthening colleges include improving access, throughput rate, management capacity, student support services, student accommodation, as well as developing management and other stakeholders, increasing the

responsiveness] of colleges to the local labour market, improving placement of college graduates in jobs, and creating a mix of programmes and qualifications that will meet the varied needs of student”.

The expectations by government in the TVET sector have not been met as the throughput at these institutions is low. The sector is also held back by the loss of experienced lecturers, high vacancy rates, and a growing dependence on the private sector for skills training. These factors encourage a loss of confidence in the sector. These challenges enhance the key problem of student attrition. This study hypothesizes that student attrition is the primary challenge for TVET colleges, as a college requires students and if there are no students due to large attrition rates, then there will be no TVET Colleges.

2.5 Student attrition

Student attrition has been part of the education system for years and different scholars have different interpretations and assessments of the concept. The commonly used expressions for student attrition are dropout, withdrawal, and exclusion. There are commonalities in all definitions which cover students' inability to continue with their studies. Angelino, Williams and Natvig (2007) defined student attrition as the reduction in the quantity of students participating in an education programme. This definition applies through all modes of education delivery. The mode of delivery might differ but attrition is an element that has been inescapable in the education system. There are various reasons for attrition. For example, attrition from an educational institution may be voluntary or due to unavoidable forces. Christo and Oyinlade (2015) attribute voluntary attrition to a student's planned conscious decision to deregister in an education programme, and such a decision may be influenced by factors such as lack of interest, a feeling of boredom and similar reasons. Conversely, unlike voluntary decisions, unavoidable forces might pull the student away from the education system.

The American Institute for Research (2012) defines student attrition as student disappearance from higher education prior to achieving their qualifications, and view attrition as a costly occurrence for the state, students and institutions. Attrition is the reverse of retention and constitutes students leaving the educational institutions. For this study, factors influencing

student attrition are grouped into those that result from the institution and its administrative and governance, including academic reasons and social integration, and environmental pull factors.

2.6 Student background factors

Student background factors refer to qualities inherent in each and every student before enrolling in a learning institution. Retention and attrition models theorise that student background characteristics are important because the student's previous exposure influences how the student interacts, participates and integrates into a college environment.

2.6.1 Education plans and goals

Students often have an idea of what they want to achieve in life and those students who have defined their goals are most likely to perform at a higher level than those who do not have a defined direction of their education (Demetriou & Schmitz-Sciborski, 2011). According to Locke and Latham (in Demetriou & Schmitz-Sciborski, 2011, p. 9), "performance is influenced by goal specificity, challenges, commitment, feedback and task complexity". Performance is the intrinsic feature and relies upon a student's determination. Human beings have different levels of determination. According to EFA Global report (2015) for a student to achieve the education goal, the education received needs to be specific and challenging. Students commit if they take full responsibility for their education (Lewin & Sabates, 2012). It often happens that students enrol for a qualification in which they do not have interest in, perhaps because of external pressure from parents, society or for economic reasons (EFA Global report, 2015). It is therefore axiomatic that for an individual to reach his/her educational goals, commitment is required. Tinto (1993) describes goal commitment as the students' inclination to accomplish a certain objective. Therefore commitment to one's goal includes persistence. "A student with a strong commitment to the goal of earning a degree will actively engage with faculty and peers and seek out assistance when confronted by obstacles" (Burrus et al., 2013, p. 19).

According to Geisninger and Raman (2013), a students' education interest is linked to career goals, and they have witnessed that most colleges experience some student attrition due to lack of interest on the part of the students. Furthermore, students' interests in the subjects for

which they are enrolled are a good predictor of student retention. Students often enrol for a programme with an unclear idea of what it entails and they can become misinformed because of their misperception of what the qualification has to offer. These misperceptions lead to students losing interest upon embarking on their studies and they eventually drop out. In addition to having a personal interest, students' education goals are linked to their ability and self-efficacy (Burrus et al., 2013). Burrus et al. (2013, p. 13) define academic self-efficacy as "the self-evaluation of one's ability and chances for success in the academic environment". Academic self-efficacy can be judged in a student's performance or academic grade. Good academic grades often boost student's esteem and result in more interest in his/her studies and greater persistence.

2.6.2 College pre-entry attributes

Pre-enrolment variables are excellent determining factors of success at college and include student background, prior schooling, student socioeconomic status, and demographic factors (Morris, 2002). Student background includes student contextual factors such as age, race, gender, their parents combined income and education level (Randall, 1999). However, most studies indicate that there should be no differences in students' academic performance and their gender (Linver, Davis-Kean & Eccles, 2002; Adigun, Onihunwa, Irunokhai, Sada & Adesina, 2015). Feldman (1993) posited that gender can be associated with perseverance. Males are more inclined to working with things and tend to persevere in technical and vocational training. Conversely, Morris (2002, p. 27) discovered that "male withdrawal was at a higher rate than female students". Porter (1990) further indicates that the attrition rate can also be linked to a student's race; it has been found that African American and Hispanics drop out more than their White counterparts. Different studies agree with the observation (Randall, 1999; American Psychological Association, Presidential Task Force on Educational Disparities, 2012; Chapman, Laird, Ifill & KewalRamani, 2011).

Previous studies indicate that there is a relationship between student attrition and family income levels (Randall, 1999; Feldman, 1993). Students from families with lower incomes tend to drop out more than those from families with higher incomes (Morris, 2002). Porter (1990) concurred with this notion and concluded that a higher proportion of students from higher socio-economic groups tend to persist in academia than students from lower socio-economic groups. Students may drop out earlier in an attempt to find employment and

support their families. This could be the case if there is low or no disposable income at home. Poverty in a student's home could be a prime cause in this case. In such instances, students could find it hard to cope with academic pressure on an empty stomach and such students might seek employment to help bolster the family income. This is often the case where the parents have low levels of education and low paying jobs (Tripney et al., 2013). Morris (2002, p.30) states that "highly educated parents value the importance of education more than lowly educated parents". Highly educated parents tend to influence their children and exert pressure on them to achieve academically and this forces the students to persist.

A lot of research indicates that one of the good predictors of student attrition is previous academic achievement. A student's previous academic performance not only gives an indication on the student's ability, it also gives an indication of the student's work ethic and general attitude towards education (Morris, 2002). Therefore a student enrolling at a TVET college with excellent high school marks is more likely to have academic success. It is important that previous academic experience be considered as it could alert colleges to earlier intervention required to avoid student attrition. Overlooking college entry requirements can result in a student's failure to accomplish the appropriate course of action required to attain desired outcomes (Zajacova, Scott & Espenshade, 2005). This could result in the student not coping with the demands of college work - which is assumed to be at a higher level than the students' college pre-entry knowledge. College pre-entry requirements also indicate the student's academic self-efficacy. Zajacova et al., (2005) reported that academic self-efficacy results in student confidence to carry out duties related to preparing and coping with college assessments. Where students cannot cope with college work, psychological stress may result, and perceived emotions of failure could lead to the student withdrawing from college.

2.7 Organisational structure variables

The term 'organisational structure variables' refers to characteristics of the learning or academic institution designed to help students adjust in the institution. Organisation administration, management, policies and marketing may impact on student retention and success.

2.7.1 Admission

Research has established that organisational inefficiency and inequitableness on the part of colleges has undesirable effects on student retention (Grayson & Grayson, 2003). This may include ineffective student admission methods, inappropriate approaches used by the student advisors on guiding students on the programmes offered, lack of communication about rules and regulations important to students and poor student recruitment practices. Grayson and Grayson (2003) indicate that, on admission, the student affairs office needs to conduct workshops tailored to assist new students in coping with college work, educational and career planning and there should be programs that promote multiculturalism and diversity on campus. One of the key factors in avoiding student attrition at an early stage is by selecting applicants for admission based on the compatibility of the student's area of interest with the faculty or department's area of specialisation (Cater, 2004). College admission should ideally include advisors available in students' 'areas of interest'. Colleges should be mindful of this factor and should not use it to unfairly discriminate against students on admission based on the student's interest and abilities.

College transition programs are an essential part of student admission to college and include orientation programmes (Patton, Morelon, Whitehead & Hossler, 2006). Orientation programs are intended to help a new student in their transition from high school to a new institution. According to Patton et al., (2006) orientation should help new students to adjust academically and socially and assist families in understanding the college and the services available. Colleges could use such programmes to gather information about its students' interests to create a friendly environment. Orientation programmes should include a range of activities such as 'outdoor physical activities' and "team activities that reinforced social and academic goals related to student retention" (Patton et al., 2006, p. 19). This might be an ideal opportunity that could be used by faculty members to get to know their students and answer questions related to their specialisation and technical expertise in a relaxed environment. The students can learn to know each other before classes can start.

2.7.2 Courses offered

Deciding on the right career path is increasingly becoming more important for young people. According to Fizer (2013, p. 1) “college students choose their job fields for many reasons and factors such as family, passion, earning prospects and past experiences influence such decision”. The nature and the type of qualifications offered by the college being considered by the student also influence students’ decisions. For example, a student may want to become a civil engineer and the institution may not offer civil engineering. The student may then be forced to consider other alternatives which may not match his/her interests and abilities. Also, the student may choose a different alternative without considering the amount of work required in that chosen field. In the latter instance students may unknowingly find themselves doing an inappropriate course with an overwhelming amount of work; this could force the student to dropout from that particular institution as a result of the inappropriate choice of course. Colleges need to develop tools that can help students in their decision for career paths and should have career open days for students and parents (Fizer, 2013). Karp (2013, p. 8) concur with the latter statement when he concluded that:

“...advisors in college help individuals identify their personality traits and occupations that might be the best for those traits, an intensive personalised approach to guidance advising help student develop knowledge and self-awareness necessary to select programmes of study suitable for their goals”.

TVET colleges offer National Accredited Technical Education Diploma /Report 190 and 191 programmes, usually known as NATED-programmes, and National Certificate Vocational (NCV). These programmes were designed to provide training for the mid-level skills necessary to develop the South African economy, and their intention is to focus on occupations in engineering and the construction industry, tourism and hospitality and general business and management studies (DHET, 2013, p. 12). The main emphasis of TVET college programmes was to address the nation’s critical skills shortages. According to DHET (2013) college programmes were designed for disparate circumstances and in various processes and this has resulted in much misunderstanding in the minds of prospective students, their parents and employers. The prospective students end up enrolling for courses for which they lack understanding and insight. NCV programmes offer occupational subjects on the same NQF

level as technical high school aimed at Grade 10, 11 and 12, which leaves students and parents confused about the nature of the qualification. On the other end, students find that they cannot further their studies because most of the courses in TVET colleges do not articulate well with qualifications in other institutions of higher learning, therefore students end up not seeing the benefits of completing a TVET college qualification (Gewer, 2010).

2.7.3 Rules and Regulations

Institutions of higher education, including colleges and universities, are organisations that have major significance in the social realm. They involve students and institution employee interaction as well as associated activities (Hodgson, 2006). This interaction and the associated activities in colleges necessitate control mechanisms; typically the institution's rules and regulations. Knowledge of and compliance to the institution's rules and regulations are an integral part of the enrolment process in the institution. According to Perna (2014, p.32), "...improving student access and success requires a comprehensive approach and leadership". Institutional leadership needs to ensure that the rules of the institutions promote student retention and success. Academic silos need to be bridged by linking all stakeholders involved and this requires coordination between institutional policy makers and officials attending to students' affairs, academic affairs and support affairs. College policies and practices need to provide a comprehensive approach to address the aims shared by all stakeholders and should promote improving student success (Perna, 2014). Colleges ought to consider the demographic and academic characteristics of enrolled students, the forces that limit their educational success, and determination of different groups of students at the institution, as well as the institutional resources available to providing necessary support (Tinto, 1993; Perna, 2014).

2.7.4 Academic Services

Oldfield and Baron (in Beaumont, 2012) are of the view that colleges and universities provide a service to the public, and suggest that higher education is a service that is predominately intangible, perishable and heterogeneous. Oldfield and Baron state that assessment of an institution's academic service is a consequence of the fact that services provided by different education institutions differ from one situation to the next, making higher education experiences encountered by individual students difficult to standardise.

Academic services include all endeavours provided by institutions to ensure a scholarly experience and development that is meaningful and significant in each and every student. Academic services include students' access to information technology and resources such as computers, printers, photocopying, a campus-wide network connection, library and information services for students. Students should have access to the office of the registrar, disability support services, and a student writing centre and availability of lecturer and consultation times for students. According to Swail (2004), academic services provide supplementary support to students in addition to what is learnt in class. Academic services - such as academic advice - ensure that students get guidance according to their personal needs and incorporate knowledge of campus programming and bureaucratic practices. "To help develop a pipeline of students interested in attending college, institutions should place considerable resources into the development of academic services necessary to acclimatise potential students to the campus" (Swail, 2004, p. 29).

2.7.5 Financial Aid

"As the cost of education rises, many students fail to enrol or complete college because of financial considerations, the higher the cost of proprietary school tuition, the less likely are students to persist" (Arnold, 1999, p. 9). Access to funding has been linked to improved student retention and students who receive financial aid usually have lower attrition rates than those who don't have financial aid (Lotkowski, Robbins & Noeth, 2004). In a study conducted by Cabrera, Nora and Castaneda (1992), it was concluded that financial aid results in a level playing field between low-income and affluent students attending college. Accordingly, financial aid helps students to stay committed in college without having the concern of being excluded on the grounds of affordability. The authors argue that money alone is not sufficient to keep students at college; however, the ability to pay for studies encourages students to work harder because they would not want to see their money going down the drain. Therefore it can be said that financial aid positively correlates to students' attainment of academic goals (Texas Guaranteed Student Loan Corporation, 1999). Having access to finances can reduce students' need to work full time and allow students to attend college full time without having to worry about financial exclusion. Institutions have a duty of determining the amount of tuition and fees they charge to students. Although in most countries, the government provides financial aid to students, it is the institution that makes decisions about the amount to be allocated to students (Perna, 2014). Therefore college rulings concerning tuition and financial aid are subject to a duty of encouraging student

access to the college and to ensure the ability of students to stay enrolled in that institution until completion of their qualification. According to Gewer (2010) funding plans and strategies at colleges should be based on the principles of coordination and equitable resource distribution. For maximum gain of students who cannot afford to pay for college fees, financing should be targeted at differentiated programmes provision across campuses, especially where they serve previously disadvantaged students, (Gewer, 2010).

2.7.6 Institutional Marketing

Marketing is important to institutions when considering student enrolment. With an increasing number of students applying to different educational institutions, more competition results amongst institutions for top students. Strategic marketing safeguards the institution's image - or makes an institution stand out from its competitors - and puts it in the robust position that it can attract strong and bright students who are less likely to drop out (Coen, 2012). To attract more students an institution should have a strong marketing department. Coen (2012) states that the marketing and communication department in an education institution should have a considerable knowledge of their institution's image and brand, because the understanding of an institution as a brand requires an institution wide initiative that encompasses, amongst others, public relations and enrolment management. Marketing an academic institution involves sending information to people, and in particular to the institution's target market about key strengths - for example students' success studying at the institution, graduation rates, retention initiatives, alumni success, etc.

According to Hanover Research (2015), institutions of higher education mimic the stance taken by big corporates, when it comes to marketing since they realised that students are their customers, and that they require an excellent customer experience throughout the student lifecycle from pre-enrolment activities up to graduate and beyond. Students also worry about the reputation of the institution where they got their qualifications (Hanover Research, 2015). Such a paradigm shift has ensured that institutions of higher learning listen and attend to their students' needs and pay attention to activities that warrant positive experiences. This includes an attractive student life; this keeps students interested and attracted to the institution – one means of counteracting attrition forces. Institutions use social media and digital platforms to present information and activities about themselves. This includes Facebook, Podcasts, Twitter and websites. Hanover Research (2014, p.5) consider an institution's marketing as

being an “effective strategic planning and brand management that require more than traditional advertising, marketing or identity development”. The institutions that craft, present and manage a unified brand message, experience and environment can achieve a competitive advantage in recruiting, retaining and building loyalty amongst their students, parents, staff, faculty, alumnae and donors (Kalsbeek & Cortes, 2012). From the above statements it becomes evident that successful marketing has benefits which improve student retention in colleges, fundraising capabilities for the institution and maintaining a superior image of the institution.

2.8 Academic integration factors

Integration means a student’s sense of belonging with others at college (Burrus et al., 2013). According to Bean (as cited in Burrus et al., 2013, p. 25) “integration is largely determined by interaction with others on campus, and through these interactions, students are socialised into college norms”. Academic institutions provide both academic and social integration for students, the objective being to encourage a student’s successful participation in scholastic activities. According to Tinto (1993) academic integration results through the formal and informal interaction between students and faculty and relates to the student’s participation in the academic organisation of the institution. Academic integration enhances learning and teaching in academic institutions (Burrus et al., 2013). Academic integration also involves interaction between the time, effort and other resources devoted by both student and academic institution, all designed to enrich the student’s experiences, learning and holistic development (Trowler, 2010). Student-institutional academic integration manifests itself in behavioural, affective and cognitive dimensions. Behavioural manifestation refers to the student’s conduct in compliance or non-compliance with the institutions rules (Ali & Gracey, 2013). The affective dimension is associated with the students’ interest in college, their perception of the usefulness of academic subjects and their sense of belonging (Steinberg, 2005). Cognitive refers to the extent to which a student is engaged in learning and the strategies used to learn (Quebec, 2013). The explanations of academic integration factors in this study are derived from the student’s relationship with the faculty, the students ‘study skills’, the subjects chosen by the student and reasons for non-attendance of lectures.

2.8.1 Relationship with Faculty

Tinto (1993) had long established that the characteristics of an institution - including its resources, facilities, organisational arrangements and its staff members - enable student development and allow for integration between the student and the educational institution (Ascend Learning, LCC. 2012). Wyckoff and Habley (as cited in Demetriou & Schmitz-Sciborski, 2011) further pointed out that a positive relationship between student and faculty, combined with availability, and usage of resources that support academic attainment such as tutorials, learning venues, classes and office hours, have been established to positively influence student retention. A positive relationship ensues when the institution supports students by ensuring that academic support programmes are provided consistently and are linked to everyday learning in the classroom (Tinto, 2004).

The students' relationship with the faculty members leads to academic engagement, which has been proven to enhance student academic performance, whilst good academic performances lead to student persistence and results in students attaining their academic goals (Lee, 2014). The nature of engagement is complex and includes a student's level of self-identity at college and development of positive associations with peers and lecturers (Burrus & Roberts, 2012). The faculty is the most important agent that brings students and their lecturers even closer and is the major agent of college student socialisation and engagement (Pascarella & Terrenzini, 2005). Burrus and Roberts (2012) further state that student interest in an institution and their studies is another reason commonly associated with the students' decision to drop out. Students commonly doubt if their teachers were interested in their learning and often assume that their teachers were more concerned with completing their workday than teaching a class (Burrus & Roberts, 2012). Lack of trust often emanates from the student's side, when the student doubts teacher involvement in his/her education. Teachers often stimulate interest and motivate students in class, but a disconnection between student and lecturer and lack of trust could lead to failure of attaining the desired academic outcomes.

2.8.2 Study Skills

Most students find it difficult to integrate into college after high school. Gerders and Mallinckrodt (1994) found that the transition to college is marked by a huge academic adjustment for the student because of the increased workload in college. During the transition period Gerders and Mallinckrodt also reported that students tend to doubt their abilities, direction in life and relationships and this lead to personal and emotional problems. Previous studies on student retention looked at academic ability as a predictor of student dropout decision (Jerald, 2006; 2007). These studies failed to look at the components of studying such as the study skills possessed by an individual and how they could be developed. These are important for a student to cope with college work and for academic adjustment. In a research conducted by Lotkowski, Robbins and Noeth (2004), it was concluded that colleges' retention efforts should focus on developing student academic competencies in areas such as reading, writing, study techniques and numeracy. The higher the student's academic competence the more likely that the student will perform better in his/her subjects and this will increase the likelihood of a student staying in an academic programme. Monitoring of student performance in all assessments such as essays, class tests and seminar presentation can give an indication of a student's level of academic competency. The necessary study skills can be taught to a student to master the required course content. Supplementary tuition is another method available for students to be trained on different study methods and techniques, and this can help students with a disadvantaged schooling background to cope with college workloads (Lotkowski, Robbins & Noeth, 2004). Supplementary tuition and enhanced study skills have been linked to benefit and maximise student involvement with their course contents (Busato et al., 2000).

2.8.3 Alternative Choices and Academic Advice

Most studies have revealed that students who have withdrawn from college have stated that they were not enrolled in their first choice programme, or even their preferred institutions (Lopez-Rabson & McCloy, 2013). The institutions set entrance requirements for different academic programmes and the aim of such entrance requirements is to cater for different students' capabilities and abilities. The majority of students often fail to meet the cut-off point imposed by the institution and end up selecting their second or third choices instead of

their initial study selection. Alternative choices were usually selected for the student by the institution, but the students themselves might not find these choices interesting and stimulating and this could lead to the student not integrating well with the work. Crosling, Heagney and Thomas (2009) identified in their study that students also tend to enrol for major courses for which their friends are enrolled, without considering their personal capabilities and interest of those courses. A student who is not academically integrated with the course registered for will show a lack of persistence and eventually student drop out. This is further exacerbated by limited subject choice from which students can choose, and this often lead to a mismatch of students' interest and course enrolled for. Academic advising is vital to ensure that students are making informed decision about the subjects they choose. There is an outcry for institutional administrators to be open-minded about placing students in correct courses and not be disillusioned by pressures of increasing enrolment in an effort to secure more funding from the government.

2.8.4 Absenteeism

There are many reasons that could lead to a student being absent from college. Bean (1981) considers absenteeism from college as behaviour adopted by student in response to various inhibitors. Inhibitors are those factors that hinder a student from being present at college (Singh, 2015). Other scholars contend that absenteeism is attitudinal resulting from dissatisfaction and boredom one feels at college (Pascarella, 1980; Self, 2012; Yusoff & Saiful, 2014). Behaviour often manifest as a result of one's attitude. Students develop a certain attitude because of the nature of the relationships with people that they have come into contact with in the institution as an organisation (Self, 2012). This interaction would constitute their various experiences, and these may possibly include dissatisfaction with the institution's quality, lack of one's self-development, isolation, lack of academic support from the college and lack of safety on the college premises (Singh, 2015). This all make the student feel insecure or prone to harassment and bullying (Sampson, 2009). Such negative experiences manifest into an attitude (for example low levels of commitment by students) or behaviour (for instance high levels of students absenteeism). Absenteeism is an observable element in organisational-individual interaction and can be viewed as an immediate diagnostic sign of student attrition (Self, 2012). Self also pointed out that there is a positive relationship between a student who stays absent from school more often and student attrition.

2.9 Social integration factors

The term ‘social integration factors’ refers to the nature and quality of the interactions a student has with peers and the faculty, as well as a student’s social involvement in the academic environment. The social interaction factors include the following:

2.9.1 Close friends on Campus

Social integration at college is closely tied to the students’ close friendships on campus. Student interaction with friends has been found to help with academic development, problem solving skills, acquiring of knowledge and most importantly student self-image and worth (Kuh, 2003). According to Kuh, Kinzie, Buckley and Hayek (2006, p. 12), “interpersonal relationships both on and off campus play a role in mediating student success in college”. Kuh et al. (2006) indicate that student friendship is a form of social network, which are structures of relationships linking social actors. Students who are parts of social networks are likely to persist with their studies because they share the same values, norms and behaviour with dominant patterns on campus. Close friends on campus are a source of influence for a student and influence cognitive development, affective learning and student behaviour (Kuh, 2003).

Close friendship foster learning because they allow students to discuss course content with other students, and the friendship lead to students working on group projects for classes. Close friendship enables students to tutor one another and share academic information and social issues because it is easy to talk and share information freely with friends (Zoellner, 2004). Therefore close friends provide a good support system for the student. This has an impact on commitment, integration and consequently persistence. Bean (1990) concurs with the notion that the number of friends that students have, has a major effect on their satisfaction levels. This is evident from most studies that compare commuting students and students residing in student residence; students who commute to college spend less time interacting with staff and peers and hence are less socially integrated (Thomas, 2000; Arbona & Nora, 2007). If a student simply attends classes and rushes back home, he or she has less time to navigate the social space on campus and are less likely to engage in campus activities. This can contribute to a student feeling isolated and lonely which can lead to student a becoming disinterested in attending college (Demetriou & Schmitz-Sciborski, 2011).

Demetriou and Schmitz-Sciborski (2011) concluded that students are most likely to be committed to an institution if they feel welcomed by their peers, and form friendships in which they can engage in campus social traditions and interactions.

2.9.2 Social Support System

A study by Lotkowski, Robbins and Noeth (2004) indicates that the overall relationship to college becomes even stronger when students receive social support from the college in addition to academic support. Students can master the course content but fail to develop academic self-confidence through social involvement in campus activities. Social support is the extent to which a student feels connected to the college environment, peers, faculty, and others in the college (Lotkowski, Robbins & Noeth, 2004). Institutions of higher education often focus on academics and overlook the importance of non-academic factors which may promote student integration at a college. College retention and performance are comparatively influenced as much by non-academic factors as they are influenced by student academic performance (Landry, 2002). There is growing evidence in research that campus support services provide students social activities that assist students in persistence through college (Hartley, 2010). A social support system ensures that students learn more about the college community, combat feelings of isolation, form social relationships, exchange opinions and develop their own perspectives and worldviews.

2.9.3 Informal contact with faculty

Informal contact between the faculty members and students builds trust, motivation and support for students at college (Swail, 2004). Students are able to make future decisions regarding college and possibility to further their studies within that particular college because of the informal relationship that exists between the students and faculty. Informal contact creates a bond between students, lecturers and college administrators, it also influences a student's sense of self-worth and this positively affects a student's locus of control (Swail, 2004). This relationship can be built upon informal discussions on academic subjects and special social events organised by different departments of the college. According to Vianden, (2009) informal contact between faculty members and students builds a culture of community involvement and caring at the college campus. Social integration is paramount to

persistence because students feel comfortable and cared for when the faculty is committed to their success.

A faculty which displays immediacy behaviour when dealing with students predicts or causes students who are satisfied with college (Voss and Gruber, 2006). Though, a classroom is the prime place in the college that all students have in common. Vianden (2009) emphasises that student-affairs professionals should play a predominant role in helping students navigating the social space on campus, explain to students the typical role of the faculty and the duties of each faculty member that can help them on campus. Out-of-classroom contacts provide students with positive awareness and perceptions about the campus environment, which influences educational aspiration, and the completion of studies (Arbona & Nora, 2007). Therefore informal contact between student and faculty make the student feel affirmed and develops a stronger bond with the institution (Kuh et al., 2006). Kuh (2003) outlines different examples of informal student-faculty interaction activities and include being a guest in a teacher's house, working on a project with a faculty member, conversation between teachers and students outside of class and being a member of faculty committees. Kuh et al, (2006, p. 86) further states that "student-faculty informal contact outside the classroom has a statistically significant influence on career choice, career interest, and eventually career selection."

2.9.4 Quality of Campus Life and Activities

There are various determinants of campus life quality. Quality is a subjective phenomenon because the term quality means different things to different students. In examining campus life it is ideal to define campus culture. Campus culture refers to patterns, norms, values, beliefs and behaviours that are passed down to new members and students alike (Carter, 2004). The earlier the student is able to adapt and adjust to campus culture, the sooner they are able to derived great benefits of campus life. Evidence from literature suggests that a positive match between student interests and the campus environment motivates the student to socially connect with others on the campus through participation in extracurricular activities (Christo and Oyinlade, 2015). The campus environment provides adequate opportunity for students to engage in different campus activities, which can be geared towards student retention efforts. These activities include faculty and student mentoring, peer

advice, academic and social advice, cultural societies and sports. The campus must become a community for students if retention efforts are to succeed.

2.10 Environmental pull factors

Environmental pull factors exert a ‘pulling away’ force on student retention efforts. These are factors which are beyond the control of the academic institution and they vary from student to student (Arbona & Nora, 2007). Environmental pull factors include the student’s family and financial responsibilities (Arbona & Nora, 2007). Such responsibilities include a student having to work and to provide for a family whilst they have to focus on their studies. Life includes unpredictable events that can pull the student away from the academic institution. Such events include poor health, getting pregnant, the student’s inability to finance studies, death in the family and divorce (Xia, 2010). Some environmental pull factors affect the student’s ‘significant other’ as well as the opportunity to transfer from one institution to another.

2.10.1 Family responsibilities and influences

Family responsibilities usually present an obstacle to the student’s education more especially non-traditional students. The non-traditional students include part-time students who cannot study fulltime because, for example, they have to look after their children (Funston, 2012). McCormick (2011) explains that with an increasing number of single parents households, single parents are less likely to continue with their education because they have to take care of their children instead of focusing on their studies. McCormick further elucidates that more and more single parents work while attending college on a part-time basis and spend at least 30 hours per week taking care of their families leaving them less time to study. Institutions with campus childcare facilities can lessen the burden faced by parents who have the added responsibility of looking after their children while they supposed to be in class. According to Battin-Pearson et al. (2000), one of early predictor of student attrition is teenage pregnancy. Accordingly, teenage mothers cannot attend college whilst attending prenatal clinics, giving birth and looking after their children; this can be demanding to a teenage mother and can lead to the likelihood of not graduating.

Family factors such as high levels of stress in households resulting from domestic abuse, family conflict and divorcing parents negatively impact on the student's performance at college (Xia, 2010). Changes in family structure have been linked to an increased burden in the student's ability to study. Students coming from families where there is low monitoring of everyday activities and students who have no curfew on study nights and no parental guidance have both been linked to an increased dropout rate (Hammond, Linton, Smink & Drew, 2007). Parental education level is one of family attributes consistently mentioned in literature linked to low student success at college. Low parental level of education is linked to low socioeconomic standing, resulting in little disposable income in the family and poverty (Katahoire & Kirumina, 2008). Students have to either work part-time or full-time to supplement the family income or put their studies on hold to help take care of their family members (Battin-Pearson et al., 2000).

Families are the source of inspiration for students. Students who have parents who dropped out when they were at college tend to follow suit because of strong parental influence. The student tends not to value education in an absence of educated role models. Gleason and Dynarski (2002) found that, if a student's family is not engaged in the student's education, parental expectation for the children's education attainment becomes an important predictor of a student leaving college before graduation. If parent and child frequent converse about college, discussing the student's future education plans, college activities and courses, this motivates the student to work on educational goals (Hammond et al., 2007). When a student and his or her parents have the same expectations, the student tends to work hard to fulfil expectations because they continually receive support and motivation to make those expectations a reality.

2.10.2 Health

Life events can drastically change people's objectives and education goals. A sudden change in a person's wellbeing can influence a student's decision to drop out. Student well-being has been commonly cited in literature as one of the pull force, pulling students out of the education system (Teese & Polesel, 2003; Smyth and Hattam, 2004). Students diagnosed with terminal illnesses such as different forms of cancers and chronic medical conditions such as diabetes, HIV, stay absent at college for longer period because they have to attend to their medical conditions (Katahoire & Kirumina, 2008). This means academic time loss

resulting from extended periods spent with doctors for consultations, regular check-ups, collection of medications and long periods of hospitalisation. When students have missed most of their lectures, there is an increase in the possibility of failing the subject because of the huge amount of work they might have missed (Gray & Hackling, 2009). Health related problems present a huge obstacle for the student's ability to complete her or his studies. Maclean, Wilson and Chinien, (2009) indicate that an illness such as HIV/AIDS has a huge impact on the youth ,especially in South African TVET colleges, and HIV jeopardises consistent class attendance because students can be absent most of the time because of poor health.

Students at tertiary education level are encountered with a huge load of academic work. In most cases, they stay away from home and this presents stress to them. Stress is ubiquitous to everyday life, but college students face stress from several sources; their academic work, adjusting to the institution, and relationships both intimate and social without a typical family support structure (Cismas, 2010). When encountered with additional stressors related to academic work, students tend to adopt certain risky behaviours as coping mechanisms, which include; smoking, taking drugs, drinking alcohol, changing eating patterns and risky sexual behaviours (Struthers, Perry & Menec, 2000). Such behaviours end up compromising the student's wellbeing, for example a student might end up with an uncontrollable addiction, a sexually transmitted infection, an unplanned pregnancy, aggression towards other students, debilitating anxiety and suicidal attempts. Kessler (2009) found that college students with high levels of perceived stress are more likely to rate their overall health as significantly lower than those with low levels of perceived stress. Stressful conditions eventually lead to students developing depression. Given the possible poor health and well-being of students, Grizzell and McNeil (2007) advise that colleges should have an important role in providing students and staff members with health services. Health services according to Grizzell and McNeil are facilities dealing with counselling, prevention and raising awareness of primary social, behavioural, physical, mental and environmental health problems.

2.10.3 Employment

Like other environmental pull factors, employment has been indicated as having a pulling effect on students' persistence (Arbona & Nora, 2007; Warren & Lee, 2003; Tinto, 1993; Bean 1990). Warren and Lee (2003) reported on the impact of employment on college

retention efforts and concluded that the amount of time a student spent working has a direct impact on academic work. Warren and Lee (2003) concluded that students working on-campus for hours more than 15 hours per week have a better chance of integrating with peers and faculty, which serve as a protective factor against attrition. The reality is that not all students get an opportunity to work on campus and the majority of students work off campus either on a fulltime or part time basis. Students might be reliant on off-campus employment to subsidise their college costs or sustain themselves and their families. This limits the time a student spends studying and compromises academic performance (Warren & Lee, 2003; Bean 1990). A student's academic performance is a major factor in determining the effect employment has on a student. Employment consumes time and energy of the student, therefore students who spend more time working end up dropping out or even taking longer to complete their studies (Beeson & Wessel, 2002).

2.11 Student success and retention

Student success has been a top priority for institutions of learning, especially higher education. Aggregate student success is commonly used as a measure of the institution's success. Student success is a hot topic and concerns all stakeholders involved. Students and parents make decision about the institution's excellence based on its success, which typically includes student success, graduation rate and the quality of the institution's education programmes, facilities and teaching (Suizzo, 2007; Sanderfur, Meier & Campbell, 2006). Institutions of higher education get funding based on the number of students enrolled or continuing to enrol at the institution and the numbers successful in completing their studies (Massa, 2012). The higher education institutions are also ranked based on their student success. In order to move towards understanding student success, one needs to outline three questions commonly addressed in literature. These are: What constitutes student success? How do postsecondary institutions promote student success and how can student success be measured or assessed?

In answering the above three questions, Cuseo (2009) defines student success as a favourable or desired student outcome. Achieving student outcome is a product of student persistence, student's achievement and educational attainment. Student success is enhanced by human interaction, collaboration, and formation of academic and social relationships between the student and the members of the college, community peers, the faculty staff and administrators

(Tinto, 1993). According to Tinto (1993) if a student is not academically and socially integrated they are more likely to feel isolated and alienated and they subsequently make the decision to drop out. A favourable social and academic environment at postsecondary institutions facilitates student persistence. For students to persist in postsecondary institutions, institutions continually seek to improve their experiences by improving their learning environment, meeting the prospects of their constituents and legislative bodies (Schreiner, 2009). Student satisfaction results in student persistence.

USA Funds (2003) describes student retention as encompassing persistence, factors at student entrance, student involvement in college and student integration. Student retention is achieved when students entering college remain, re-enrol and continue with their education. Though many equate student retention to student success, Hispanic Educational Telecommunications System (2007) argue that though retention and graduation rates commonly are used to define student success, in actual fact they are factors that measure institutional assessment. Given its close relationship to student success, student retention is important for measuring institutional efficiency in the prevailing environment of accountability and budgetary constraints (Wild & Ebbers, 2002). Wild and Ebbers (2002) further suggest that as college administrators struggle with increasing barrage of questions from public and government organisations about the effectiveness of their educational enterprise they are also being challenged by legislative constraints on budget.

Interaction between the student and the academic and social environment of the college is important for the student to connect to college and persist (Tinto, 1975). Bean (1990) indicates that institutional commitments need to provide for peer group and faculty interactions. Student persistence manifests if colleges help students to remain in college by providing the necessary interventions which allow students to academically and socially integrate within the institution. College action for helping students includes student support activities such as advising, tutoring and mentoring (Veenstra, 2009). The expected result is improved student retention and enrolment at the institution.

2.12 Strategic enrolment management

Student retention is vital for college existence. Student retention assures colleges' continued flow of revenue through payment of tuition fees. Grants from government are determined by the size of the student body (Massa, 2012). Therefore student retention is important for sustained student enrolment. Student retention requires continuous monitoring and management, which can be achieved through a college's strategic enrolment management plan. According to Hossler and Bean (1990, p. 5) strategic enrolment management are organisational systems and processes put in place to:

“attract the right students, providing financial aid, easing the transition to college through orientation programs, using institutional research to gather and analyse data about students while using appropriate interventions for students lacking skills or needing guidance, conducting research to identify the factors associated with student retention, helping with job placement, and enlisting support of alumni”.

Hossler and Bean (1990) further state that enrolment management is a management system that requires some ethical consideration because it is driven by application of resources that may favour one group of students over another. Ethical considerations are necessary to avoid unfair selection of students and biased student recruitment practices. This is more important in particular in a country like South Africa which is in a transformation phase, where past injustices inherited from the apartheid regime have to be addressed. According to Subotzy (n.d.) the majority of the student population in South Africa is underprepared for higher education with inadequate primary and secondary schooling, and most students coming from disadvantaged communities are confronted by poor socio-economic and financial situations.

Strategic enrolment management is an idea and a process that enables the accomplishment of the institutional mission and achievement of students' educational goals. According to Green (2012), strategic enrolment management can be achieved through the establishment of clear goals about the number and types of students required to fulfil the institutional mission. It can be further promoted by improving college access, transition, persistence and graduation (Green, 2012). The planned result can be achieved through effective strategic resource and financial planning accompanied by the collection of college information to assist informed decisions and evaluating strategies. The purposes of strategic enrolment management can also be realised by strengthening communication and marketing with internal and external

stakeholders of the institution, improving processes and organisational and financial efficiency/outcomes (Green, 2012). The objectives can further be achieved by increasing collaboration among departments across campus to support the enrolment programme. According to Massa (2012), enrolment management is intended to improve student life, the recruitment process, type and quality of academic processes and social life in an academic institution. For enrolment management to be effective it requires senior college administrators to consistently coordinate the relationship between the various different units and stakeholders of the institution. Such an effort should improve student retention at the college. This system can therefore contribute to overcoming the student attrition problem at institutions of higher learning.

2.13 Theories and models on student retention

Interest in student attrition can be traced back as far as the early twentieth century. The first study on student attrition was conducted by John McNeely, where information from 60 institutions was collected on demographic characteristics, social engagement and reasons for student departure from education systems (Demetriou & Schmitz-Sciborski, 2011). This early study is considered as an authoritative predecessor of studies on student attrition. Most studies at the time studied student retention to address student attrition. Student retention studies started to form a researchable field in higher education after 1960 (Berger & Lyon, 2005). The following decade, saw the emergence of college student attrition and retention theories and include Spady's (1970) sociological model of student withdrawal from higher education, which was centred on Durkeim's suicide model. In 1975 Vincent Tinto developed a model of student integration which was also based on Durkeim's suicide model (Demetriou & Schmitz-Sciborski, 2011). Spady suggested that academic potential, normative congruence, grade performance, intellectual development and friendship support results in social integration and, secondarily, contributes to students' decision to drop out of college (Berger & Lyon, 2005). Tinto's model put forward that students' commitment to their education is influenced by informal and formal academic experiences at college as well as social integration (Berger & Lyon, 2005). This led to suggestions that educational institutions have a role that they play in the student's act of withdrawing from studies.

During the 1980s the new concept of strategic enrolment management was created in response to continued student attrition in colleges. According to Demetriou and Schmitz-

Sciborski (2011, p. 3), “throughout the 1980s, the literature on retention theories grew as many institutions made retention a focal point of their strategic planning”. Theories from Bean in 1980, Hossler in 1984 and Astin’s model of student involvement revealed more previously unrecognised factors contributing to student attrition (Demetriou and Schmitz-Sciborski, 2011). According to Bean’s model of student attrition, a student’s circumstantial factors and interactions with an institution stimulate personal fulfilment, obligation to complete studies, and perseverance (Burrus et al., 2013).

According to Swail (as cited in Demetriou & Schmitz-Sciborski, 2011), during the 1990s there was a paradigm shift in student attrition literature and the focus was the representation of all population groups and diversity in institutions of higher learning. In line with this pattern most theorists reviewed and added to their theories in order to ensure that they factored in multiculturalism. Moving towards the twenty-first century the focus became student centred retention with an emphasis on cross-departmental institutional responsibility for retention by means of wide-ranging retention management programmes (White, 2005).

2.14 Theoretical Framework

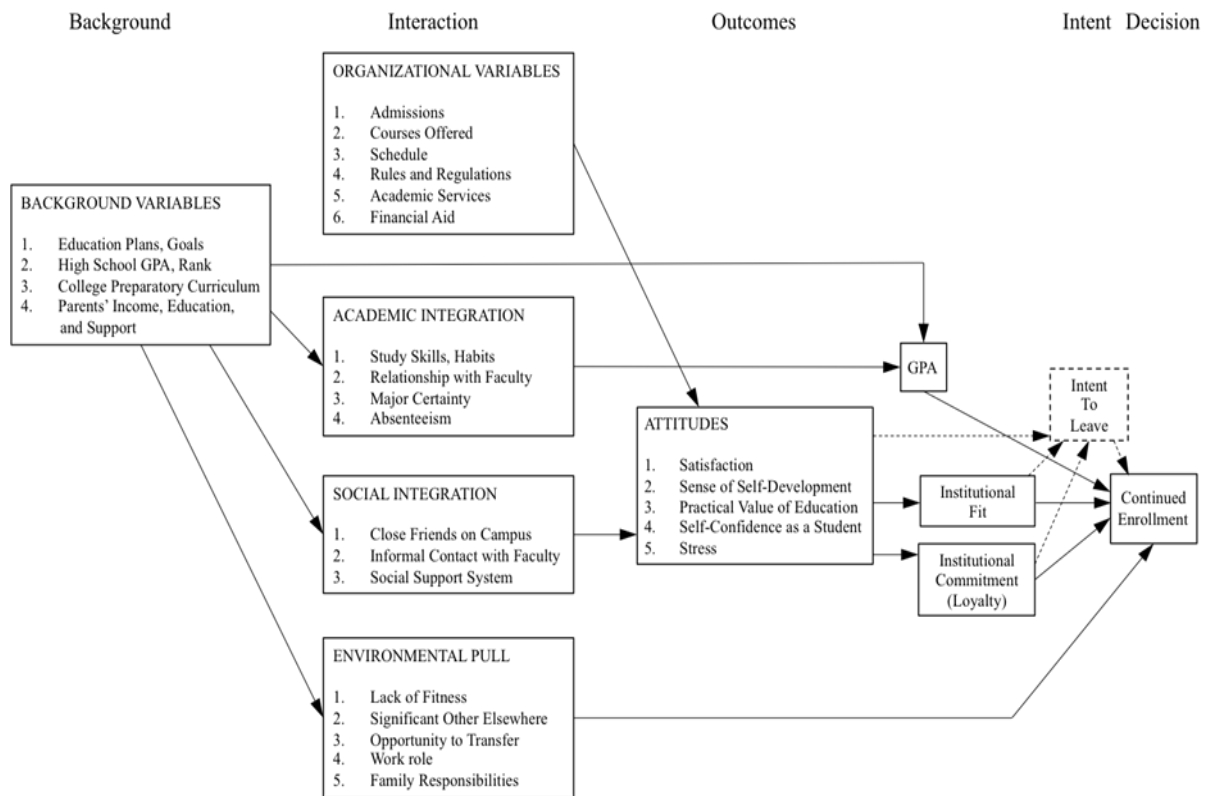
This study is underpinned by Bean’s Model of Student Attrition (Figure 2.1). According to Bean (as cited in Eaton & Bean, 1995, p. 19) “a student’s intent to continue in college is a good predictor of actual student retention” .An explanatory model of student attrition is originally based on turnover in work organisation (Eaton & Bean, 1995). “Bean’s model, explains that student interactions and integration combined with subjective evaluations of the educational processes, institution, and experiences to directly influence satisfaction and indirectly influence intentions to persist” (Burrus et al., 2013, p. 8). A student network in an academic institution includes interaction and integration ranging from academics to the social arena. Positive interaction leads to constructive experiences concerning the institution which in turn influence a decision to continue enrolled at that institution.

The Bean model suggested that a student’s integration into social life and academic demands of an educational institution is a good predictor of student retention. He further points out that student subjective evaluation of the institution combined with student external environment factors are a good predictor of student staying enrolled in an education institution. Bean envisaged that student attrition is due to lack of integration into the social, organisational

culture and intellectual life of the institution. Positive interaction and integration leads to constructive experiences towards the institution which in turn influence a student's decision to continue enrolled at the institution (Bean, 1990).

Students that do not fit or adapt to the general ethos and atmosphere of a specific institution come with a host of influences which may be contributed to their background; influences include student willpower, plans, academic preparedness for college, parental support or college organisational variables such as academic services, admissions and rules of the institution. The Bean model looks at the interaction between the student characteristics and the institutional characteristics, which is the learning environment, as a contributing factor to a decision about the institution. Factors influencing student attrition vary from institution to institution and from student to student. This study focuses on factors influencing student attrition at Umgungundlovu TVET College by using or testing core constructs of Bean's model to verify students' intention to stay enrolled at Umgungundlovu TVET College. The relevant constructs include student background factors, organisation variables, academic integration factors, social integration factors and environmental pull factors. Seemingly, assistance of college staff members, college retention strategies are quite important factors in the final decision the student will make about dropping out (Pascarella and Terrenzini, 1991). It would thus seem that theories on student attrition and retention are very closely linked to any strategies to enhance the student's successful completion of their studies (Morris, 2002). Therefore the current study is premised on the latter basis by applying the Bean model of student attrition at Umgungundlovu TVET College to describe student attrition at this institution. The theoretical framework guiding the current study is illustrated in Figure 2.1.

Figure 2.1: Bean's Model of Student Attrition



Source: Adapted from (Bean, 1990, p. 152)

As evident in Figure 2.1, the factors influencing student attrition vary from institution to institution. This study focuses on factors influencing student attrition at Umgungundlovu TVET College by using or test four core interaction constructs in the model. The following four constructs drawn from model will be used to study factors influencing student attrition at Umgungundlovu TVET College ('The College') and include:

- Organisational (bureaucratic) factors such as financial aid, academic services, rules and regulation and courses offered at The College and how they influences student attrition;
- Academic integration factors such faculty interaction, campus counselling and campus resources;
- Social integration factors such as how informal student contact with the faculty and having close friends on campus influence student attrition at The College;
- Environmental pull factor such as continued parental support, financial resources, and family responsibilities influence student attrition at The College.

2.15 Conclusion

TVET colleges have been identified as an important skills development institutions and a training mechanism necessary for South Africa in order to address the social, education and economic problems in the country. The hopes and dreams of many South African of obtaining vocational and technical skills are in jeopardy if TVET colleges are failing to produce artisans and graduates. Student attrition is a serious underlying problem in TVET colleges. Student attrition results in the reduction of numbers participating in colleges (Williams & Natvig, 2007). Different theories have postulated various reasons as to the causes of student attrition. Most commonly cited reasons are due to student background factors, lack of integration into social, organisational culture and intellectual life of the institution and environmental pull factors. Correctly identifying the factors contributing to student attrition can help institutions to tailor strategic management plans that will enhance students' experiences at TVET colleges, improve retention and graduation rates. This chapter provided a review and information about challenges faced by TVET colleges and factors contributing to student attrition at TVET Colleges. The following chapter will detail the processes that were followed to collect information required to fulfill the objectives of this study and to answer the research questions.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter details the research design and methodology used to explore, understand and describe factors influencing student attrition at Umgungundlovu TVET College. Among other aspects, research design was investigated and was adapted to answer the research questions. A quantitative descriptive design was adopted for this study in order to describe and designate appropriate factors influencing student attrition at Umgungundlovu TVET College. Bean's theory of student attrition is used to determine if the factors identified in his model apply in this case. This chapter also describes the locations in which this study was conducted, which were the Msunduzi Campus and the Midlands Campus of Umgungundlovu TVET College. A representative sample of the population was drawn from the two campuses using stratified random sampling. Details' relating to data collection and the appropriate data collection instrument are further discussed. Data collected was subjected to ethical considerations and was scrutinised and analysed using statistical analysis.

3.2 Research design

Research design is an overall plan that is used by the researcher in order to assist in answering the research questions (Bhattacharjee, 2012). Research design is applied in research to get the answer(s) to a research questions in a most objective, economical and accurate way. Research design details the conditions on the method of collecting data and ultimately analyse it in line with the specific objectives of the study. Research design has two main functions. According to Kumar (2011), the first function relates to an operational plan, and the processes to be followed to undertake the different procedures and tasks required to complete the study. The second function ensures that the procedures are sufficient to obtain meaningful answers with relevancy and accuracy to the research questions posed (Kumar, 2011). The second function also ensures that there is better control over influences that could affect the validity of the findings.

A researcher needs adequate planning to know what type of evidence is required to answer the research question, to test a theory, to evaluate a programme or to accurately describe

some phenomena. There is a variety of research designs that a researcher can use depending on the type of answer the researcher wishes to get. The present study used a quantitative descriptive design to identify, analyse and describe factors influencing the student attrition rate at Umgungundlovu TVET College. Descriptive research design was deemed appropriate for this study because this study attempt to describe characteristics pertaining to the student population resulting in student attrition and the extent of their influence. The main goal of using a descriptive research design was to describe data and characteristics of factors influencing student attrition at Umgungundlovu TVET College. The idea behind this design is to present collected data using frequencies, averages and inferential statistics.

3.2.1 Quantitative research

According to Sousa, Driessnack and Mendels (2007) quantitative research design primarily involves the analysis of numbers in order to answer the research question or hypothesis; it is different from qualitative research which involves the analysis of words or non-numerical data. This research approach is typically deductive in nature resulting in knowledge that is based on careful observation and measurement and interpretation of reality. This study adopted a top-down logic approach in which the conclusion of the study was reached deductively by applying general rules that hold over the entirety of a closed domain of discourse, narrowing the range under consideration until only inferences were drawn. Bean's theory of student attrition was being tested to see if it holds in the case of Umgungundlovu TVET College. Sousa, Driessnack and Mendels (2007) state that deductive reasoning is the process in which the researcher begins with an established theory, where concepts have already been reduced into variables, and then gather evidence to assess, or test, whether the theory is supported. A sample adapted from the established large population is normally used to generalise the findings to the whole population.

A quantitative research methodology was used to gather knowledge concerning student attrition at Umgungundlovu TVET College. The attrition rate was determined using a calculation to obtain a numerical value. This study uses Bean's model of Student attrition to learn, describe and explore influences leading to student attrition by interrogating students' circumstantial variables, Umgungundlovu College's organisational factors and the integration variables between student and the college environment. The purpose of adopting this approach was to establish the relationships that may exist between measured variables, which

are student, organisational, social and academic integration factors and their significant influence on student attrition.

3.2.2 Characteristics of quantitative research

A study is classified as quantitative if it exhibits the following features (Kumar, 2011; Creswell, 2014);

- It is underpinned by a philosophy of rationalism, which means people are able to get knowledge because of their ability to reason;
- Approach of inquiry is a structured, rigid and predefined methodology;
- The main purpose of investigation is to quantify the extent of variation in situations, issues and phenomena;
- The emphasis is on the measurement or classification of variables;
- There is a great focus on sample size and assembly which requires information from a greater number of respondents (than for qualitative research);
- It explains prevalence, incidents, extents of inquiry, opinions, and attitude, discovers regularities and formulate theories;
- Emphasis is placed on the reliability and validity of research instruments;
- Findings are dependent on statistical analysis and communication of findings is more organised and analytical in nature, drawing inferences and conclusions, and testing strength and magnitude of relationships.

The current study aims to quantify the factors that influence student attrition at Umgungundlovu TVET College. Factors identified in Beans model of student attrition are tested in the current study in order to make relevance inferential. A sample of 370 students was taken to increase an understanding of student attrition at the said institution and to generalise the results to the population. The approach used was highly structured and followed the predefined methodology as detailed in the next section.

3.2.3 Descriptive design

According to Bhattacharjee (2012) a process that involves making careful observations and detailed documentation about a phenomenon of interest can be termed a 'descriptive design'.

These observations must follow scientific methods and not be casual observation; there is a need to be precise and replicable even if the study were conducted by a different person. Descriptive studies are commonly used when few features of a particular phenomenon are known. Descriptive design allows the researcher to obtain in-depth knowledge about the characteristics of a topic of interest. Descriptive design describes what truly exists, determines the frequency at which it exists, and categorises information (Sousa, Driessnack & Mendels, 2007). This study adopted a descriptive research design because it attempts to document various elements contributing to student attrition at Umgungundlovu TVET College. Factors influencing students' attrition were categorised into four, those that result from the students themselves, the organisation and that result from social and academic integration between students and members of the institution. Knowledge obtained from these variables is aimed at subsequent correlation with student attrition rate at Umgungundlovu TVET College.

3.3 Study site

'Study site' refers to the place where the study was conducted or a place where data was collected. In this study, data was collected from two campuses of Umgungundlovu TVET College. The two campuses are Msunduzi and Midlands campuses. Both campuses are located in the Pietermaritzburg central business district. Umgungundlovu TVET College has three other campuses in the surrounding areas of Pietermaritzburg, which are Edendale, Imbali and Northdale. Msunduzi campus is the primary site for the bulk of business studies programme of the college and they also offer part-time and distance classes of all business programmes offered by other campuses. Midlands campus is the home of engineering studies programme with the exception of civil engineering which is offered at Edendale campus. Midlands is also resident to a part-time engineering department. Msunduzi and Midlands accommodate both traditional (fulltime) and non-traditional (part-time) students. Msunduzi is the campus with the highest number of registered students followed by Midlands campus at Umgungundlovu TVET College.

3.4 Research population, sampling and sample

According to Greener (2008), the research population is the universe to be sampled, Greener further states that a sample is a portion or subset of a larger group termed 'population'. The

sample population might include all students in a particular institution. Surveys often use samples rather than populations. A good sample is a miniature version of the population. The best sample is representative or a model of the population. Survey samples are not meaningful on their own. Their importance lies in the accuracy with which they represent or mirror the target population (Greener, 2008). The target population may consist of the institutions, persons, problems, and systems to which or whom the survey's findings are to be generalised.

3.4.1 Target population

According to Kumar (2011) a population is the entire collection of units or people in a given area in which the study will be conducted, and target population refers to the entire collection of units a researcher is interested in. For the purpose of this study, all registered students either full time or part time students of Umgungundlovu TVET College form the research population. The target population consists of all students registered in the two central campuses of the same institution from which the sample was drawn. The target population was seen as those participants accessible to the researcher and who met the eligible criteria which specify that participants had to be registered student of Umgungundlovu TVET College. It was not feasible for the researcher to collect data from the entire statistical population; a representative sample of the population was drawn from students of the two campuses of Umgungundlovu TVET College, namely, Msunduzi and Midlands. The two campuses were chosen because they house the largest number of students, more than any other remote Umgungundlovu College campuses, and they offer educational programmes that are not offered by other campuses. These are the only two campuses of Umgungundlovu College that offer both part time and full time studies. In order to get a true reflection of the student body at Umgungundlovu TVET College, both campuses were ideal choices. Therefore, the target population for this study is the total number of registered students in the two campuses, which is 10360 students for semester two of year 2016.

3.4.2 Sampling strategy

Bhattacharjee (2012) stipulates that a researcher should carefully choose the target population from which data is to be collected, and a sampling strategy to select a sample. The sampling strategy is closely related to the unit of analysis in a research problem. While selecting a

sample, reasonable care should be taken to avoid a biased sample that may generate biased observations. Sampling is the statistical process of selecting a subset of a population of interest for purposes of making observations and statistical inferences about that population (Greener, 2008). At times it becomes impossible to study the whole population because of feasibility, time and cost constraints. Selecting a sample that represents the target population is necessary and it is a multistep process that involves defining the target population, which is then followed by choosing a sampling frame. The sampling frame is the accessible segment of the target population from where a sample can be drawn (Bhattacharjee, 2012). The final step is selecting a sample from the sampling frame using well defined sampling strategies. There are two broad sampling strategies, namely probability and non-probability sampling (Greener, 2008). A probability sampling strategy was used for this study because it was intended that each individual in the population have an equal probability of being selected ensuring that the samples were representative of the population. As a result of the various campuses' different study programmes and the mode of study at Umgungundlovu TVET College, the nature of the target population in this institution permitted a stratified random sampling.

3.4.3 Stratified random sampling

According to Kothari (2004) stratified sampling should be applied where a population (from which the sample is to be drawn) does not constitute an identical group. Students at Umgungundlovu are not a homogenous group as they study for different qualifications in different campuses and some are studying fulltime with some studying part-time. If using stratified sampling the population is divided into several populations (called strata) that are individually more homogenous than the total population, selected individuals from each stratum constitute a sample. The two strata for this study were engineering studies site which is situated at Midlands campus and the business studies site which is at the Msunduzi campus. This type of sampling is used when a researcher wants to highlight specific subgroups within the population. A source list also known as the sampling frame includes all instructional programme qualifications offered in both campuses (Table 3.1). Groups or classes of students studying the same programme or qualification were selected randomly and proportionally from the different strata. The sampling unit was a class and not individuals and following is the sampling frame for this study:

Table 3.1: Sampling frame

Business Studies programmes	Engineering Studies programmes
Legal Secretary N4 – N5 (Full time)	Electrical Engineering N1 – N6 (Full time)
Management Assistant N4 – N6 (Full time)	Electrical Engineering N1 – N6 (Part-time)
Tourism Management N4 (Full time and Part-time)	Mechanical Engineering N1 – N6 (Full time)
Public Relations N6 (Full time)	Mechanical Engineering N1 – N6 (Part-time)
Marketing Management N6 (Full time)	Civil Engineering N1 – N6 (Part-time)
Human Resource Management N4 – N6 (Part-time)	
Public Management N4 – N6 (Part-time)	
Financial Management N4 – N6 (Part-time)	
Business Management N4 – N6 (Part-time)	
National Certificate (Vocational): Office Administration (Full time)	
National Certificate (Vocational): Tourism (Full time)	
National Certificate (Vocational): Transport and Logistics (Full time)	

Source: The researchers own data.

3.4.4 Sample and sample size

Sample size is the total number of units or persons selected to participate in the study (Saunders, Lewis & Thornhill, 2009). There are a total number of 10360 registered students at Umgungundlovu TVET College out of which a total of 370 students were proportionally sampled from the total population. According to Kumar (2011) when selecting a sample in

quantitative studies, the aim is to achieve maximum precision, save time and the cost of collecting data from the entire target population. The larger the sample sizes the lower the likely error in generalising to match the population. Saunders et al. (2009) states that the choice of sample size is governed by the confidence needed in the data, meaning the level of certainty that the characteristics of the data collected will represent the characteristics of the total population. In this study the sample size was determined in relation to the total population of students at Umgungundlovu TVET College using the Krejcie and Morgan table for determining sample size from given population with a 95% confidence interval within plus or minus 5%. Consideration also was taken with regards to the type of statistical analysis required in this study during decision about the sample size.

3.5 Data collection

Data collection refers to the systematic collection of information about objects of study and is concerned about the setting in which they occur. According to Kothari (2004, p. 95) “it is important that while deciding [about] the method of data collection to be used for the study, the researcher should keep in mind the two types of data, namely, primary data and secondary data”. The method of collecting data is largely determined by the type and nature of data required. After making a decision about the type of data required for the study it is important to determine the data collection instrument to be used to collect data. For this study structured questionnaires were used to obtain data. The data for this study were obtained by administering the questionnaire to the participants during semester two of 2016. The questionnaire was administered to 370 students over a period of five consecutive days starting from 7 November 2016 and was concluded on 11 November 2017.

3.5.1 Data collection instrument

The term 'data collection instrument' refers to the tool used to collect data. For this study a structured questionnaire was used (Appendix D). Written structured questionnaires, which are also referred to as self-administered questionnaires, are a data collection tool in which written questions are presented that are to be answered by the respondents on written forms (Kumar, 2011). For this study the questionnaire had two sections which details questions on the following:

- Section A
 - Student's biographical information
- Section B
 - Academic integration factors
 - Social integration factors
 - Organisation factors
 - Environmental pull factors

The questionnaire was self-developed by the researcher after consulting literature and reviewed the research question of the study. The development of the individual items in a questionnaire was based on the four research questions and objectives of the study. The questionnaire has rating questions comprising mostly close-ended and some open questions in an attempt to identify factors contributing to student attrition at Umgungundlovu TVET College. A five point rating Likert-style rating scale was used in which respondents were asked to indicate how strongly they agree or disagree with a series of statements in the questionnaire. Questionnaires were hand delivered and collected from the participants by the researcher with the assistance of senior lecturers from both campuses over a period of five days. The questionnaires were administered to the participants as a captive audience in a classroom setting. This was to maximise the response rate and to explain the purpose and relevance of the study to the participants. This was a quickest way of collecting data. Albeit that the questionnaire was given to a captive audience, the questionnaires were only given to students who were willing to answer the questions after the process was explained to them.

3.5.1.1 Characteristics and advantages of a questionnaire

According to Kothari (2004); Saunders et al. (2009) and Kumar (2011) the following characterise a questionnaire:

- Questionnaires collect data by asking people to respond to exactly the same set of questions. They are often used as part of a survey strategy to collect descriptive and explanatory data about opinions, behaviours and attitudes;
- Data collected through questionnaires is normally analysed using statistical methods;
- Questionnaires are a low cost method of collecting data even when the universe is large and is widely spread geographically;

- Questionnaires are free from bias of the interviewer because the answers are respondents own answers;
- Questionnaires offer greater anonymity since there is no face-to-face interaction between respondents and interviewer. In situations where sensitive questions are asked it helps to improve the likelihood of obtaining accurate answers.

3.5.2 Reliability and validity of the research instrument

According to Kothari (2004) reliability of data can be tested by interrogating aspects concerning the source of data, the person collecting the data, the methods used to collect data, the time the data was collected and the level of accuracy in the data. For a study to be reliable it means that the results obtained need to be reliable and results need to be replicated even if the study were to be done by a different investigator using a different method. A pilot test of the research questionnaire was done to validate robustness of the questionnaire and its ability to produce consistent findings and to enable questions to be amended accordingly. This was done by correlating data collected with those from the same questionnaire collected under as near equivalent conditions. The questionnaire was piloted to thirty respondents before commencement of actual data collection of the study.

The Cronbach's alpha coefficient was used to assess the internal consistency of the research instrument used in measuring factors influencing student attrition. Cronbach's alpha is a reliable measure when using questionnaires that have multiple Likert questions that form a scale and to determine if the scale is reliable.

3.6 Data analysis

The formal process that follows data collection is data analysis. After data has been collected it needs to be processed to make it useful and for it to convey meaning to people (Saunders et al., 2009). Saunders, et al. (2009) further state that quantitative analysis techniques such as graphs, charts and statistics allow the researchers to explore, present, describe and examine relationships and trends within the data. The collected data in this study make use of a rating scale often used to collect opinion data. In this study it was intended to gather information

from the students' perspective the extent that it influences student attrition at Umgungundlovu TVET College.

The data collected by the questionnaire was analysed using descriptive and inferential statistics. According to Weinberg and Abramowitz (2008, p. 2), “descriptive statistics is used when the purpose of an investigation is to describe the data that have been collected, while inferential statistics goes beyond the descriptive task”. Inferential statistics comes to play whenever working with samples and when one wants to make a generalisation about populations (Weinberg and Abramowitz, 2008). Therefore inferential statistics is used when the purpose of the research is also to make inferences based on the data collected. Inferential statistics was used to assess the degree of certainty of inferences from sample data. The statistical tools used include cross tabulation, which represented mean, mode, percentiles and frequencies of variables measured in the study. Cronbach’s alpha coefficient was used to measure the internal consistency of the questionnaire. A logistic regression model and a regression coefficient were used for different students’ response variables and as predictor of variables for students dropping out at the college, and binary response. The Statistical Package for Social Sciences (SPSS Version 24 for Windows) was used to aid statistical analysis because it is a well-established package that is widely used by behavioural and social scientists. The SPSS Version 24 is a computational package that is powerful enough to quickly handle the analyses of a large data set. Measurements involved the observation of student attrition influences and features at Umgungundlovu TVET College and the assignment of numbers to those feature so that the numbers represent the amount of the characteristics possessed. The measurements were based, not only on observing objects as similar or dissimilar. As well as being ordered in terms of underlying characteristics of interest, the measurements were based on observing objects as being similar or dissimilar.

3.7 Ethical considerations

Saunders et al. (2009) state that ethics in research study refers to the correctness of the researcher’s behaviour in relation to the rights of those who become the subjects of the study and how they are affected by the study. Consequently ethical considerations in a research study raise questions about how the researcher formulates the research topic, research design and gaining access, collection of data, processing and storage of data, analysis of data and the reporting of findings in a moral and responsible way.

3.7.1 Permission to conduct the study

As indicated above, data collection is associated with ethical issues. The current study was subjected to ethical scrutiny. The research topic and the research proposal for the study were sent by the researcher to the University of KwaZulu-Natal (UKZN) Research Proposal Review Committee for review and approval. The research proposal got approval from this committee on 12 September 2016. This study involves collecting information from students at Umgungundlovu TVET College. Prior to the study, the researcher obtained ethical clearance from UKZN Humanities and Social Science Ethics Research Office through an ethical clearance letter (Protocol reference number: HSS/1733/016M). Physical and cognitive access to Umgungundlovu TVET College was addressed in the gatekeepers letter (Appendix A). Permission to conduct the study at Umgungundlovu TVET College was granted by the institutions Deputy Academic Director (Appendix B). Consent to participate in a study was achieved in the form of a student's consent letter (Appendix C) which was handed out together with a questionnaire to students. The intention was to fully inform participants of the purpose of the study, level and type of participation involved, to guarantee participants' confidentiality and anonymity and provide assurance that they would be able to withdraw from the study should they wish to do so. Participants were not prejudiced, discriminated against, or harmed during the study. During the study the students completed the questionnaire anonymously as individuals although the questionnaire was answered in the classrooms.

3.8 Limitation of the study

The questionnaire was distributed to a captive audience in classrooms; students may somehow have felt obligated to answer the questions although they might have not wanted to. Students completed questionnaires in classrooms in the presence of senior lecturers and completed them as individuals without sharing answers. Even though the collection and answering of questionnaires was voluntary, specific students might have felt obligated to take one in the presence of the authoritative figure. This was evident from the questionnaires which were not filled and incomplete.

3.9 Conclusion

This chapter details the steps and procedures followed by the researcher to collect data. It was imperative to prove the scientific rigour of the study and the approach applied in gathering concrete knowledge regarding student attrition at Umgungundlovu TVET College. The nature of the inquiry and the phenomenon investigated in this study permitted a quantitative research design. This approach was adopted because characteristics of the student population resulting in student attrition at Umgungundlovu TVET College are described and quantified. The appropriateness of a descriptive design for this study yield the data presented in the following section, chapter 4; data presentation and analysis.

CHAPTER FOUR: DATA ANALYSIS, INTERPRETATION AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents data analysis and interpretation of empirical results emanating from the study of factors influencing student attrition at Umgungundlovu TVET College. A structured questionnaire was used to collect information from students of different racial, financial and social backgrounds. The study, through literature, established four factors that influence student's attrition namely: organisational factors, academic integration factors, social integration factors, and environmental pull factors. The purpose of this study was to determine the factors that influence student attrition at Umgungundlovu TVET College and their extent of influence. In order to answer the research questions of this study; four objectives were set and the findings are discussed in relation to the following research objectives:

- To determine the organisational factors that influence student attrition at Umgungundlovu TVET College;
- To ascertain the extent at which academic integration factors influence student attrition at Umgungundlovu TVET College;
- To establish the extent at which social integration factors influence student attrition at Umgungundlovu TVET College;
- To explore environmental pull factors influencing student attrition at Umgungundlovu TVET College.

This chapter is divided into 3 sections. The first section provides descriptive statistics where the basic social characteristics and demographic information of the students at Umgungundlovu TVET College were analysed. The social characteristics and demographic information of the students include age, marital status, gender, enrolled qualification; field and mode of study, parents or guardians level of study and household income are explored. The second part looks at the reliability of the research instrument and how the four factors mentioned above affect student attrition. The last part looks at the relationship between the social characteristics and the attrition variables using inferential statistics.

4.2 Presentation and discussion of findings related to the participants demographic data at Umgungundlovu TVET College.

The purpose of this section was to establish whether there were associations between demographic variables in the study. Cross-tabulation was directed at summarizing the information pertaining to participants' demographic data. The following discusses participants' demographics.

Table 4.1a: Table of cross tabulation between gender and marital status

Gender	Marital Status			Total
	Single	Married	Widowed	
Female	197	10	1	208
Male	92	4	0	96
Total	289	14	1	304

Among the students surveyed for this study, there were more females than males. The female students represented 68, 42% of the respondents while the males represented 31, 58%. A total of 289 respondents were single, 14 were married and 1 was widowed. There were 4 students who did not respond to either of the questions. The respondents in this study are mainly females students and single.

Table 4.1b: Table of cross tabulation between income and marital status

Income	Marital Status			Total
	Single	Married	Widowed	
0-5000	203	8	0	211
5001-10000	29	3	0	32
10001-20000	19	2	0	21
Above 20000	6	1	1	8
Total	257	14	1	272

Most of the respondents fell in the 0-5000 Rand income bracket of which 203 representing 96, 21% were single. Only eight respondents recorded that their family income was more

than R20, 000 per month. There were 36 individuals who did not respond to either or both of the questions. This give an indication that majority of the respondents are from low income families. Financial constraints may possibly result in students not being able to buy necessities required at college such as textbooks and stationery.

Table 4.2a: Table of cross tabulation between gender and age-group

Gender	Age-group				Total
	16-20	21-30	31-40	41-50	
Female	51	126	23	6	206
Male	38	51	7	1	97
Total	89	177	30	7	303

From Table 4.2a, majority of the students (266) were aged between 16 and 30 years old which equates to 87, 79 % of the respondents. 58, 41 % (N = 177) of the respondents were aged between ages 21-30. Only 2, 31 % (N = 7) of the surveyed students were aged between 41 and 50 years, giving an indication that majority of the students at Umgungundlovu are of late adolescent to young adults.

Table 4.2b: Table of cross tabulation between income and age-group

Income	Age-group				Total
	16-20	21-30	31-40	41-50	
0-5000	64	128	16	1	209
5001-10000	8	16	6	2	32
10001-20000	5	8	8	1	22
Above 20000	2	3	0	3	8
Total	79	155	30	7	271

There were 64 respondents in the age group 16-20 years whose family income was between R0 and R5000 per month, 128 from the 21-30 age group, 16 from the 31-40 age groups and only 1 from the 41-50 age groups. Most of the respondents surveyed fell in the R0 - R5000 income group. Income in the range R0 - R5000 may point toward lower Socio-Economic Status (SES) of the students' family income.

Table 4.3a: Table of cross tabulation between gender and race

Gender	Race				Total
	African	Indian	Colored	White	
Female	202	3	3	0	208
Male	90	4	1	2	97
Total	292	7	4	2	305

From the total of 305 respondents, there were 202 female African students, 3 coloured and 3 Indian female students. On the other hand among the male students, there were 90 Africans, 4 Indians, 1 coloured and 2 white males. This implies that the majority of the respondents were African and in particular, females. This is consistent with the national TVET colleges' gender enrolment numbers of 57, 35% and 42, 65 % for females and males respectively (Higher Education and Training, 2013). The numbers in the table may be a reflection of student racial demographics of the general TVET college population.

Table 4.3b: Table of cross tabulation between income and race

Income	Race				Total
	African	Indian	Colored	white	
0-5000	98, 11%	0, 95%	0, 47%	0, 47%	212
5001-10000	96, 88%	3, 12%	0	0	32
10001-20000	81, 82%	9, 09%	9, 09%	0	22
Above 20000	75%	12, 5%	12, 5%	0	8
Total	263	6	4	1	274

From table 4.3a, most African students are in the R0 - R5000 income group. In particular only 6 out of the 263 African students who answered both of the questions (income and race) had more than R20 000 as their household monthly income.

Table 4.4a: Table of cross tabulation between gender and field of study

Gender	Field of study			Total
	Business	Engineering	Utilities Studies	
Female	119	18	44	181
Male	41	23	23	87
Total	160	41	67	268

Table 4.4a shows the cross tabulation between gender and field of study. The majority of the students enrolled for business studies, followed by utility studies. Engineering courses had the least number of students out of the 308 sampled. There were more females than males in both business and utility studies. There are more females (90, 05 %) enrolled for business studies and utility studies. Male students are more dominant (56, 09 %) in the engineering department as indicated above. These findings concur with Feldman's (1993) findings that males are predominately inclined to work with their hands and persevere in technical and vocational training. These results indicate that males tend to register for engineering studies and females often prefer office related occupations. As a result, it is necessary to motivate female students into the engineering discipline and provide the necessary support which will ensure that they remain interested in the field of engineering studies. The societal typecast that engineering is for males and office administration is for females could result in female and male student attrition in engineering studies and office administration studies respectively.

Table 4.4b: Table of cross tabulation between income and field of study

Income	Field			Total
	Business	Engineering	Utilities Studies	
0-5000	118	25	49	192
5001-10000	16	7	5	28
10001-20000	12	4	4	20
Above 20000	5	3	0	8

Total	151	39	58	248
-------	-----	----	----	-----

Table 4.4b shows the cross tabulation between income and field of study. Most students in the income bracket of between R0 – R5000 took either business or utility studies. This could suggest that these two courses were affordable.

Table 4.5a: Table of cross tabulation between gender and mode of study

Gender	Mode of Study		Total
	Fulltime	Part time	
Female	144	61	205
Male	56	41	97
Total	200	102	302

From Table 4.5a, majority of the students were full-time students. This accounted for 66, 22% of the respondents. There were more females on full-time basis while the male respondents were split between full-time and part-time.

Table 4.5b: Table of cross tabulation between income and mode of study

Income	Mode of Study		Total
	Fulltime	Part time	
0-5000	151	60	211
5001-10000	17	14	31
10001-20000	5	17	22
Above 20000	0	8	8
Total	173	99	272

There were more full timers than part-timers in general. The majority of the full-time students were in the income group R0 - R5000. In the part-time category, the R0 - R5000 income group had also the highest number of students.

Table 4.6a: Table of cross tabulation between gender and parent/guardian education level

Gender	Parent/Guardian Education			Total
	primary	secondary	Tertiary	
Female	37	98	62	197
Male	14	41	40	95
Total	51	139	102	292

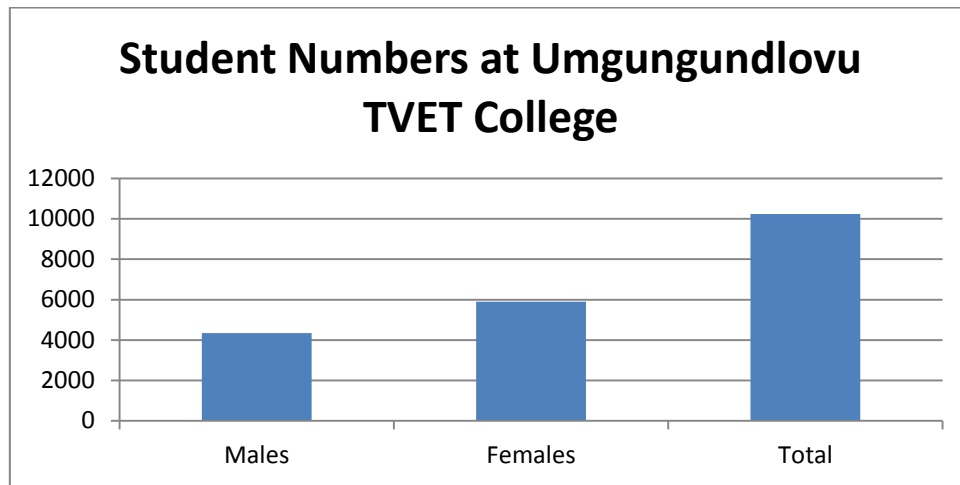
Majority of the participants (65, 07 %) indicated their parents never completed high school. The lower household income level could also be explained by the parents' lower educational attainment resulting in students' parents without the necessary skills which would attract higher paying jobs and therefore be in a position to be financially stable.

Table 4.6b: Table of cross tabulation between income and parent/guardian education level

Income	Parent/Guardian Education			Total
	primary	secondary	Tertiary	
0-5000	41	111	57	209
5001-10000	5	9	16	30
10001-20000	2	4	15	21
Above 20000	1	0	7	8
Total	49	124	95	268

The above findings revealed that most participants are predominately from low income families with 77, 9 % respondents indicating their family monthly income lower than R5000 suggesting low socio economic status (SES). Research point out that student from low-SES families and communities develop academic skills more slowly compared to children from higher SES groups (Morgan, Farkas, Hillemeier, & Maczuga, 2009).

Figure 4.1: The numbers of male and female students enrolled at Umgungundlovu TVET College in Semester two of 2016



Source: The researchers' own design.

The actual ratio of male to female students at Umgungundlovu TVET College is 1: 1.3 (Figure 4.1). The sample of the study is representative of the gender of student population in the college. The results (Table 4.1b, Table 4.3b and Table 4.6b) indicate that most students come from underprivileged families and their household income is less than five thousand Rand per month. Students may be drawn to TVET Colleges because they are more affordable than private colleges. Lack of funding for students in TVET Colleges may result in student attrition. The study indicates in table 4.5a that 36 % of respondents from the sample size are studying part time. This could be an indication that perhaps some students decide to work in order to supplement their family household income as indicated in Table 4.2b most students are from low SES.

Most of the participants are single and are young adults in the age group from 21 to 30 years (Table 4.2b). This gives an indication that most students in the South African education system are young adults as indicated in Statistics on Post-School Education and Training in South Africa: 2014 found in DHET (2016). Single students have less family related commitment than married students and are at the stage where they are seeking skills in order to be better prepared for the workforce. Umgungundlovu TVET College is no exception because 266 out of 303 respondents are under the age of 30 representing 87, 79% of the sample size.

4.3 Reliability of the research instrument.

The Cronbach's alpha coefficient was used to assess the internal consistency of the research instrument used in measuring factors influencing student attrition, as discussed in the methodology section. Cronbach's alpha is a measure used to assess the reliability, or internal consistency (i.e. they should all be measuring the same thing and hence correlated with one another), of a set of scale or test items. In other words, the reliability of any given measurement refers to the extent to which it is a consistent measure of a concept, and Cronbach's alpha is one way of measuring the strength of that consistency. Cronbach's alpha is computed by correlating the score for each scale item with the total score for each observation (usually individual survey respondents or test takers), and then comparing that to the variance for all individual item scores: The alpha is calculated as:

$$\alpha = \left(\frac{k}{k - 1} \right) \left(1 - \frac{\sum_{i=1}^k \sigma_{y_i}^2}{\sigma_x^2} \right)$$

Where,

k refers to the number of scale items;

$\sigma_{y_i}^2$ is the variance associated with item i

σ_x^2 is the variance associated with the observed total scores.

The alpha coefficient of reliability ranges from 0 to 1. The closer the Cronbach's alpha is to 1 the greater the internal consistency of the items in the scale and vice versa [1].

Table 4.7: Cronbach's alpha for the factors influencing students' attrition rate

Factor	Cronbach's alpha	Items
Academic integration	0, 633	11
Social Integration	0, 614	8
Organization factors	0, 827	10
Environmental pull factors	0, 146	5

Table 4.7 shows the Cronbach's alpha for the factors influencing student attrition rate. Academic integration, social integration and organization factors were most reliable in measuring students' attrition. The organizational factor was the most reliable factor with an alpha value of 0, 827. Environmental pull factors were not very reliable in measuring the student attrition rate. The response rates for the four factors influencing student attrition in this study were 11 questions on academic integration factor, 8 items on social integration factors, 10 items on organizational factors, and 5 items on environmental pull factors. Respondents were asked on various aspects entailing these factors and their responses were measured in a five point Likert scale.

4.3.1 Influence of organisational factors on student attrition at Umgungundlovu TVET College

Table 4.8: Table of responses to organisational factors

S/N	ITEMS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	TOTAL
3.1	I am aware of college academic rules and regulations	6 2,00%	10 3,33%	20 6,65%	166 55,15%	99 32,90%	301
3.2	The college informs students about qualification requirements before registration	7 2,33%	16 5,32%	28 9,31%	161 53,49%	89 29,57%	301
3.3	The college communicate information to students about campus news	29 9,67%	60 20,00%	53 17,67%	126 42,00%	32 10,67%	300
3.4	The college communicate information to students about tuition costs	23 7,8%	33 11,19%	39 13,23%	147 49,84%	53 17,97%	295
3.5	The college communicate information to students about campus events	29 9,84%	47 15,94%	58 19,67%	138 46,78%	23 7,80%	295
3.6	The college assist students with financial aid	32 10,78%	37 12,46%	48 16,17%	131 44,11%	49 16,50%	297
3.7	The college provide relevant academic services to students	16 5,52%	26 8,97%	79 27,25%	142 48,97%	27 9,32%	290
3.8	The college attend to students needs	35 11,95%	55 18,78%	83 28,33%	93 31,75%	27 9,22%	293
3.9	The college management involve students in decision making related to college operations	48 16,17%	71 23,91%	80 26,94%	77 25,93%	21 7,09%	297
3.10	The college management consult students on matters related to students	32 10,74%	33 11,08%	81 27,19%	122 40,94%	30 10,07%	298

Bean's model of student attrition identified organisational structural variables as one of the precedents of student attrition. Therefore good management and administration of TVET Colleges increases students' prospects and success at college. Consequently, this section aimed at answering the research question as to what organisational factors influence student attrition at Umgungundlovu TVET College. Also, the aim is to meet the research objective, namely to determine the organisational factors that influence student attrition at Umgungundlovu TVET College.

The organisational variable construct consisted of ten statements on matters related to college management and administration (S/N 3.1 – S/N 3.10) in Appendix D. Each of the statements is discussed at length in the following discourse; favorable responses are designated as "strongly agree" and "agree" while disapproval of a statement is designated as "disagree" and "strongly disagree". Table 4.8 represents a summary of student perceptions of factors and influences of college organisational factors enhancing student attrition at Umgungundlovu TVET College. As a Likert scale was used to gauge responses, literature dictates that the data be treated as ordinal (Bhattacharjee, 2012; Kumar, 2011). Therefore statistical mean, mode and percentiles are used to indicate central tendency.

4.3.1.1 College rules and regulations

From Table 4.8 most of the students indicated that they are aware of the college's academic rules and regulations. An overwhelming 88.05 % either agree or strongly agree of knowledge of college academic rules and regulations. As indicated in chapter 2 of this study, colleges are organisations that have a major significance in the social realm because they involve student and institutional employee interaction as well as associated activities (Hodgson, 2006). This interaction and the associated activities in colleges necessitate control mechanisms by means of the institution's rules and regulations. Knowledge and compliance of the institution's rules and regulations are an integral part of the enrolment process in the institution and results in a well-managed institution. Knowledge of rules of the institution ensures that one knows what is expected of him/her and what they can and cannot do. Knowing what is expected can put students at ease and avoid conflict situations that could result in the student pleading ignorance of the college regulations.

College policies and practices need to provide a comprehensive approach to address the aims of all stakeholders of the college and should promote improvement of student success (Perna, 2014). If students know and accept college rules they should not feel less restricted at their own institution. Knowledge and acceptance of rules and regulations can bring order and maintain a good relationship between students and the institution. For example if a student ignores a ruling against playing loud music during lectures, lecturers will not be able to achieve their goals and other students will find it hard to concentrate.

4.3.1.2 College qualification requirements

According to Fizer (2013) the nature and the type of qualifications offered by the college has a big impact on students remaining enrolled at the institution. Approximately 53, 49% respondents agreed with the statement that the college informed them of the qualification requirements and 29, 57% respondents strongly agree with 'knowledge of college qualification requirements'. One of the key factors in avoiding student attrition at an early stage is by selecting applicants for admission based on the compatibility with the student's area of interest regarding the faculty or department's area of specialisation (Cater, 2004). In the study, 51 out of 301 students either indicated that they were not sure or not informed of the college requirements before they were enrolled. Lack of academic advice and career guidance can result in a student doing an unintended course which could negatively affect the student's interest in the subjects taught for that qualification. Attwood (2006) agrees that students who lack interest in their subjects have poor results and this in turn affects student retention.

According to DHET (2013) college programmes were designed in disparate circumstances and using diverse processes and this has resulted in much misunderstanding in the minds of prospective students, their parents and employers. Prospective students end up enrolling for courses for which they lack understanding and insight, despite being informed of the qualification requirements. TVET Colleges need to revisit and revise their qualifications in order to make sure they are relevant to the needs of society and the labour force. As much as the results of the study indicate that Umgungundlovu TVET College is advising and career-guiding students, their efforts are fruitless if the qualifications they offer are not relevant to the student's future prospects. The above results indicates that the college is doing well in sharing information about their qualifications and recruitment of students but not good

enough to retain them in those qualifications until completion because of the belief that TVET College qualifications are irrelevant to the labour market and it is difficult to articulate or progress to other institutions of higher learning.

4.3.1.3 Communication and institutional marketing

Among the respondents, 52, 67% asserted that the college communicates information to students about campus news while 29, 67% disagreed with this assertion. Slightly more than 50% of the respondents agreed that the college communicates information to students about campus events and the rest were either neutral or indicated that the campus did not communicate information to students about campus events. These results raise concerns as the students are almost equally split regarding their views about the college communicating information to them. Green (2012) states that strategic enrolment management can be achieved by strengthening communication and marketing between (and by) stakeholders of the institution. Therefore communication is vital and channels of communication should be effective. Colleges can design good and interesting programmes for their students but if students are not aware of them they will be useless and inoperable (Booth and Dunn, 2013). Students need to be aware of campus news and what is going on around them. This information develops a students' sense of belonging and increases the chance of being interested at the college (Green, 2012). Open channels of college communication can help students and staff stay informed about college issues and campus events.

Coen (2012) states that the marketing and communication department in an educational institution should have a considerable knowledge of their institution's image and brand, because the understanding of an institution as a brand requires an institution-wide initiative that encompasses, amongst others, public relations and enrolment management. Marketing an academic institution involves sending information to people, and in particular to the institutions extended market, about key strengths - for example students' success studying at the institution, graduation rates, retention initiatives, alumni success, etc. If students believe in their institutions and the image of the institution is good in the public eye, chances are they will stay at that college and become patriotic members of the institution. It is not possible that 47, 34% - which is almost half of the students - will remain attentive and interested at Umgungundlovu TVET College if they are not fully aware of information related to their campus and 45, 45% lack information about campus events. Getting involved in campus

cultural and extracurricular activities at college can be important in increasing students' interest at college while developing working and social skills (Booth and Dunn, 2013).

4.3.1.4 Financial Aid

Asked about whether the college communicates information to students about the tuition costs, 68, 81 % of the respondents agreed that the college does so while 18, 99% disagreed that the college communicates that information and 13, 23% remained neutral. This suggests that students generally know about the cost of their studies. Knowing what to expect is important when budgeting for college costs and it help students and their parents to plan finances well in advance in order to avoid dropping out because of lack of finance. The 18, 99% who disagreed that the college communicates that information could be the sponsored or bursary students whose information about tuition is communicated to their sponsors. Informing students about tuition cost is not enough to keep them enrolled. In a study conducted by Cabrera, Nora and Castaneda (1992) it was concluded that financial aid results in a level playing field between low-income and affluent students attending college. They further state that financial aid helps students to stay committed in college without having the concern of being excluded on the grounds of affordability. Therefore colleges can play an important part by assisting struggling students with financial aid or even offering flexible payment plans for students; they could have fee remission for deserving students.

When asked whether the college assists students with financial aid, 180 out of 297 (60, 61%) respondents agreed that indeed the college provided them with financial aid whereas 23, 23 % indicated that the college did not provide them with financial aid. These results indicate that most students probably receive financial assistance from the college. The 69 respondents who disagreed and 48 who remained neutral could be students who probably do not qualify for financial aid. TVET College receives funding from the state and they have to distribute the finances to their students based on certain qualifying criteria and it is need-based (National Student Financial Aid Scheme [NSFAS], 2016). If government is the only source of funding for these institutions this could result in not all students receiving full financial help. The financial help might be insufficient to sustain a student's tuition costs, textbook costs, boarding, travelling and living expenses for all because a state institution generally accommodates a large number of students. Access to funding has been linked to improved

student retention and students who receive financial aid usually have lower attrition rates than those who do not have financial aid (Lotkowski, Robbins & Noeth, 2004).

4.3.1.5 Academic services and participative management

Not many of the respondents felt that the college provided relevant academic services to them (58, 29%) while the rest were either neutral or in disagreement with the fact. According to Swail (2004) academic services provide supplementary support to students in addition to what is learnt in class. These results indicate Umgungundlovu TVET College may not doing enough to provide academic services to their students. Such services could include students' lacking access to information technology and resources such as computers, printers, photocopying, a campus-wide network connection, library and information centres, and an office of the registrar, disability support services, a student writing centre and availability of lectures and consultation times for students. Only 40, 97% of the respondents agreed that the college attended to their needs. This finding is in keeping with the findings that most students' felt that the college does not provide academic support because more than half of the students agree with the assertion that the college is failing to live up to their expectations by providing necessary structures to support their academic needs.

Regarding the statement on college management involving students in decision making, related to college operations, 26, 94% of students chose to remain neutral. Students have mixed feelings with regards to the statement as 33, 02% disagree with the statement and 39,02% agree to being part of college decision making process. More than half of the students do not find joy with the provision of academic services because most believe that they are not being listened to. Though 51,01% agreed that college consults students on matters related to students, this shows that the college is not doing enough to implement students' views because there is an outcry for academic services for students. Improved participative management, which involves students in decision making, creates a sense of ownership. Participative management instills a sense of pride and motivates students to be active members of the college community and this increases the likelihood of students remaining enrolled in the college (Grayson & Grayson, 2003).

4.3.2 The influence of academic integration factors on student attrition

Table 4.9: Table of responses to academic integration factors

S/N	ITEMS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	TOTAL
1.1	I understand the thinking of my lecturers/facilitators when they lecture or ask questions	4 1,33%	7 2,32%	42 13,91%	200 66,23%	49 16,23%	302
1.2	I am happy with the intellectual growth since I enrolled at Umgungundlovu TVET College	8 2,65%	16 5,3%	33 10,93%	164 54,31%	81 26,83%	302
1.3	I am happy with the quality of education I receive at Umgungundlovu TVET College	6 1,98%	9 2,97%	35 11,52%	161 52,97%	93 30,6%	304
1.4	I am interested in the things that I being said during class discussion	3 1,01%	8 2,69%	23 7,27%	180 60,41%	84 28,19%	298
1.5	I can see the link between what I learn in class at Umgungundlovu TVET College and my future career possibilities	4 1,33%	2 0,67%	26 8,59%	144 47,53%	127 41,92%	303
1.6	I believe my lectures/facilitators impose unreasonable requirements on students and enjoy seeing students distress.	51 17,95%	78 26,45%	49 16,62%	89 30,17%	28 9,5%	295
1.7	I am happy with my academic performance/grades so far.	6 2,00%	24 8,00%	42 14,00%	148 49,34%	80 26,67%	300
1.8	I am committed to my studies	3 1,02%	4 1,36%	16 5,43%	120 40,68%	152 51,53%	295
1.9	I stay absent from college because lectures are boring	168 56,57%	96 32,33%	17 5,73%	7 2,36%	9 3,04%	297
1.10	I require study skills to copy with college work	19 6,67%	26 9,13%	58 20,36%	134 47,02%	48 16,85%	285
1.11	My course is more theoretical than practical	9 3,06%	35 11,87%	48 16,28%	119 40,34%	84 28,48%	295

The second objective of this study was to ascertain the extent to which academic integration factors influence student attrition at Umgungundlovu TVET College. Therefore the research question: 'to what extent do academic integration factors influence student attrition at Umgungundlovu TVET College?' is answered in table 4.9. The constructs 'academic

integration factors' in this section include 11 statements (Table 4.9). Tinto (1993) defines academic integration as the formal and informal interaction between students and faculty and relates to the student's participation in the academic organisation of the institution.

4.3.2.1 Quality of tuition and teaching

Academic integration enhances learning and teaching in academic institutions (Burrus et al., 2013). Academic integration also involves interaction between the time, effort and other resources devoted by academic institutions, all designed to enrich the student's experiences, learning and development (Trowler, 2010). The majority of the respondents (209 out 302) - representing 69,02 % of the sample size - understand their lecturers when they lecture and 54,31% agreed that they are happy with their intellectual growth since being enrolled at the college. Approximately one in four respondents (26,83%) is extremely satisfied with their intellectual development at the college. Students are happy with what they receive in the classroom and find relevance in their studies. Nes, Evans, and Segerstrom (2009) found that dispositional and academic optimism were associated with better motivation and adjustment and reduced drop-out rates. These results indicate that Umgungundlovu TVET College is doing well with regards to students' relationship at faculty level as four in five respondents (83,57%) are happy with the quality of the education they are receiving. Students' perceptions of quality education could be influenced by college lecturers' pedagogical strategies in the class rooms. This indicate that Umgungundlovu might be recruiting qualified, experienced and knowledgeable academic staff who are able to cater for student academic thirst and keep them intrigued in class.

From the findings in table 4.9, it must be noted that 47, 53 % of students agree that they can see the link between what they learn in class at the Umgungundlovu TVET College and their future career possibilities, additional 41, 92% strongly agree with the assertion. Goings (2013) proposed that there is often a considerable discrepancy between the output of college graduates in different vocational and technical disciplines and the absorption capacity of the labour market. The questions are raised as to whether the content taught at colleges and performance of systems is able to meet the changing needs of the labour force. The findings indicate that students at Umgungundlovu TVET College are able to see beyond what they learn in the classroom and have an optimistic outlook for their future career prospects. This could be dictated by the supposed practical nature of the TVET Colleges curriculum as

opposed to the university curriculum which is believed to be more academic and theoretical (Shugart, 2016). The results in this study contradict this statement because 68, 82 % indicated that their courses are more theoretical than practical.

4.3.2.2 Study skills and major certainty

Despite most students finding lectures exciting at Umgungundlovu TVET College 182 out of 285 respondents representing 63, 87 % of the sample size specified that they required study skills to cope with college work. The illusion that TVET Colleges offers less theory could have accounted for such a high percentage of students requiring study skills to cope with college work. That also could be the reason that 39.67 % respondents believe that their lecturers impose unreasonable requirements on them and enjoy seeing them distressed. Gerders and Mallinckrodt (1994) found that the transition to college is marked by a huge academic adjustment for the student because of the increased workload in college. During the transition period Gerders and Mallinckrodt also reported that students tend to doubt their abilities, direction in life and relationships and this leads to personal and emotional problems.

4.3.2.3 Absenteeism

Most (56,57 % of the 297) of the respondents strongly disagreed with the statement that they stay absent from college because lectures are boring, a further 32,33 % disagree, that is 88,90% respondents do not agree with the statement. Different scholars contend that absenteeism is attitudinal resulting from when dissatisfaction and boredom is felt at college (Pascarella, 1980; Self, 2012; Yusoff & Saiful, 2014). It is evident from the above discussion that the respondents find teachings interesting and hence do not stay absent. To indicate the respondents extend of academic integration at Umgungundlovu TVET College 92, 21 % indicated that they are committed to their studies and therefore 76.01 % of the respondents are happy with their academic performance at this college.

4.3.3 Influence of social integration factors on student attrition at Umgungundlovu TVET College.

Table 4.10: Table of responses to social integration factors

S/N	ITEMS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
2.1	I am happy with the interpersonal relationship with other students at Umgungundlovu TVET College	9 2,97%	6 1,98%	23 7,57%	176 57,9%	90 29,61%	304
2.2	The interpersonal relationships I have with other students have an impact on my intellectual growth.	9 3,02%	17 5,69%	50 16,73%	147 49,17%	76 25,42%	299
2.3	I am emotionally connected with other students on this campus	15 4,99%	42 13,96%	76 25,25%	118 39,21%	50 16,62%	301
2.4	I feel socially connected with staff on this campus	18 5,93%	51 16,78%	105 34,54%	102 33,56%	28 9,22%	304
2.5	I participate in the college extracurricular activities	46 15,29%	89 29,57%	69 22,93%	76 25,25%	21 6,98%	301
2.6	I partake in college organisation/societies	50 16,62%	83 27,58%	72 23,93%	70 23,26%	11 3,66%	287
2.7	People are friendly in this campus	8 2,72%	17 5,77%	62 21,02%	151 51,09%	57 19,33%	295
2.8	I wear clothing with Umgungundlovu TVET College emblem	120 40,82%	91 30,96%	34 11,57%	34 11,57%	15 5,11%	294

The relationship between social integration factors and their influence on student attrition at Umgungundlovu TVET College is illustrated in table 4.10. Social integration factors refer to the nature and quality of the interactions a student has with peers and the faculty, as well as a student's social involvement in the academic environment.

4.3.3.1 Interpersonal relationships on campus

As seen in Table 4.10 above, from the total number of 304 respondents surveyed, 266 - representing 87, 51% of the total respondents - were happy with their interpersonal relationship with other students at Umgungundlovu TVET College. Similarly, 223 respondents representing 74, 59% of the sample size agreed that interpersonal relationships had an impact on their relationship growth and have a constructive influence on their intellectual growth. Student interaction with other students at college has been found to help

with academic development, problem solving skills, acquisition of knowledge and most importantly student self-image and worth (Kuh, 2003). 49,17% of participating students agreed that the interpersonal contact they have with other students has impacted on their individual intellectual growth. Students who are part of social networks are likely to persist with their studies because they share the same values, norms and behaviour with dominant patterns on campus. More than 70% of the respondents observed that people on the campus were friendly. Close friends on campus are a source of influence for a student and influence cognitive development, affective learning and student behaviour (Kuh, 2003).

4.3.3.2 Social Support System

About half of the respondents affirm that they were emotionally connected with other students on the campus. 40, 54% respondents stated that they felt socially connected with the staff members on the campus. Students can master the course content but fail to develop academic self-confidence through social involvement in campus activities. Social support is the extent to which a student feels connected to the college environment, peers, faculty, and others in the college (Lotkowski, Robbins & Noeth, 2004). There were 57 students - representing 18, 95% of the respondents - who claimed that they did not feel socially connected with the staff members on the campus. Informal contact between faculty members and students builds trust, motivation and support for students at college (Swail, 2004). Students are able to make future decisions regarding college and possibly to further their studies within that particular college because of the informal relationship that exists between the students and the faculty. Informal contact creates a bond between students, lecturers and college administrators, it also influences a student's sense of self-worth and this positively affects a student's locus of control (Swail, 2004). Therefore informal contact between students and faculty make the student feel affirmed and this develops a stronger bond with the institution (Kuh et al., 2006).

The study indicates that some of the participants remained neutral or uncertain about informal contact with the college. This should be regarded with some concern because an additional 22,71 % indicated they disagree with the statement that they are socially connected with staff. These results indicate that more than half of the participants do not trust faculty members on campus and they feel they are not supported socially. Most of the respondents; 71,78% reported that they do not wear clothing with uMgungundlovu TVET college emblem which

could imply that the students at the college do not take pride in their college. Wearing college branded clothing may perhaps prove patriotic behavior towards the institution and could indicate a sense of identity and belonging. In as far as student commitment and patriotism goes a few students find college branded clothing appealing and there were 36,25% (table 4.10) of the respondents who believed that there were other colleges superior to Umgungundlovu college.

4.3.3.3 Quality of Campus Life and Activities

There were very few respondents (32, 22%) who claimed that they participated in college extracurricular activities (97 out of 301), while 135 out of 301 (44,85 %) claimed that they did not partake in the college extracurricular activities, 69 out of 301(22,92 %) were neutral. Christo and Oyinlade (2015) indicated that a positive match between student interests and the campus environment motivates the student to socially connect with others on the campus through participation in extracurricular activities. These findings indicate that Umgungundlovu TVET College is not doing much to encourage student participation in extra-mural activities. Students at Umgungundlovu TVET College are less socially connected with others because of the limited student participation in college extra-mural activities. Umgungundlovu TVET College might need to invest more on developing extra-mural activities to reverse the current situation. According to Vianden, (2009) extra-curricular activities provide ample opportunities for students to engage in different campus activities which can be geared towards student retention efforts

4.3.4 Influence of environmental pull factors on student attrition at Umgungundlovu TVET College

Table 4.11: Table of responses to environmental pull factors

S/N	ITEMS	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	TOTAL
4.1	I often miss my classes because of medical reasons	45 15,06%	88 29,44%	41 13,72%	81 27,10%	44 14,72%	299
4.2	I often miss my classes because of employment	99 33,45%	128 43,25%	16 5,41%	38 12,84%	15 5,07%	296
4.3	My family approve of Umgungundlovu TVET College	12 4,06%	12 4,06%	30 10,14%	155 52,37%	87 29,40%	296
4.4	My family will be disappointed if I can drop out of this college	23 7,75%	19 6,40%	9 3,04%	92 30,98%	154 51,86%	297
4.5	I believe there are other colleges much better/ superior to Umgungundlovu TVET College.	45 15,11%	62 20,81%	83 27,86%	66 22,15%	42 14,10%	298

The number of respondents who affirmed that they usually missed classes due to medical reasons (41,80 %) was almost equal to the number of those who stated that they did not (44,48 %) usually miss classes due to health reasons. This gives an indication that illness is a contributing factor in some students missing their lessons, however the extent of which illness can lead to student dropping out of college needs to be determined. Health related problems present a huge obstacle for the students' ability to complete studies. Maclean, Wilson and Chinien, (2009) indicate that an illness such as HIV/AIDS has a huge impact on the youth , especially in South African TVET colleges, and HIV jeopardizes consistent class attendance because students are absent most of the time because of poor health. It is interesting to observe that those who missed classes due to illnesses (41, 80 % of the respondents) were more than those who missed classes due to employment (17, 91 % of the respondents). These results give an indication that there are a few students that are currently employed and most study full time as indicated in Table 4.5a.

As indicated in Table 4.11 most of the respondents agreed that their families approved of their training at Umgungundlovu TVET College, and 82, 84% specified that their families will be disappointed if they dropped out of the college. Umgungundlovu TVET College is a public institution; state institutions are generally cheaper and more credible than private

colleges OECD (2012). There were 42 students representing 14% of the respondents who indicated that their families would not be disappointed if they dropped out. This could be some of the students who indicated that their families disapprove of Umgungundlovu TVET College or even those who opted to remain neutral. Excellence issues have become a central measure of an institution's approval by parents; things commonly cited by the public in relation to poor quality include institutions' bad publicity, strikes at the institution and poor customer service (Greatbatch & Holland, 2016). These results give an indication that some of the parents are not happy with the quality of the college.

4.3.5 Student attrition at Umgungundlovu TVET College

Table 4.12: Table of students' attrition factors

S/N	ITEMS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	TOTAL
5.1	I am likely to drop out because of lack of student-lecture interaction at Umgungundlovu TVET College	100 33,23%	150 49,84%	27 8,98%	19 6,32%	5 1,67%	301
5.2	I am more likely to drop out of college because of inadequate social support on Campus	76 25,17%	143 47,36%	42 13,91%	29 9,61%	12 3,98%	302
5.3	I am more likely to drop out of college because of poor college administration	84 28,10%	142 47,50%	32 10,71%	30 10,04%	10 3,35%	299
5.4	I am more likely to drop out if I can find a fulltime job.	74 25,09%	114 38,65%	42 14,24%	43 14,58%	22 7,46%	295
5.5	My family will be disappointed if I dropped out of college	24 8,00%	20 6,67%	7 2,34%	117 39,00%	132 44,00%	300
5.6	My family are supportive in my pursuit of college certificate	4 1,36%	11 3,73%	18 6,11%	140 47,46%	122 41,36%	295
5.7	I am persistent in my pursuit of the college qualification	4 1,37%	9 3,07%	40 13,61%	149 50,69%	92 31,30%	294
5.8	I am committed to completing my studies at TVET college	4 1,34%	3 1,01%	11 3,68%	117 39,14%	164 54,85%	299
5.9	I am confident that this is the right college for me	5 1,67%	7 2,34%	38 12,67%	137 45,67%	113 37,67%	300
5.10	At this moment in time, I am more likely to earn a college diploma	2 0,67%	4 1,34%	24 8,00%	123 41,00%	147 49,00%	300

Table 4.12 displays the students' attrition factors. Students were asked 10 questions about why they thought they would drop out of the college and how their families would react etc. When asked if they were likely to drop out due to lack of student-lecturer interaction, 83,07% of the students disagreed or strongly disagreed with this. Only 7, 99% of the respondents indicated that they were likely to drop out due to lack of student-lecturer interaction. These results concur with the earlier findings in table 4.8 of this study where most students gave an indication that they were generally happy with the way in which they mingle with their lecturers. This is also supported by the overwhelming 83, 57 % of the 304 respondents who indicated that they were happy with the quality of education they receive at Umgungundlovu TVET College. These results indicate that students are not likely to drop out of Umgungundlovu TVET College, as a result of low levels or lack of student-lecturer interaction.

There were 13,53% of the respondents who said that they were likely to drop out due to lack of social support on the campus as compared to 75,53% who disagreed or strongly disagreed with that fact. As already indicated in table 4.9 a majority of the participants indicated that they are satisfied with social networks on campus, and they indicated that they feel emotionally connected with other students on campus and staff members. However these results do not specify the source and form of social support. Social support could be through friendship and bonding that the students have among themselves and staff members. Social support can also come from the programmes initiated and managed by the institution such as students' involvement in campus activities, clubs and societies, student counselling and psycho-social programmes. Nevertheless 75, 53 % of participants are not likely to drop out of Umgungundlovu TVET College due to lack of social support. Though the 13,53% of the respondents who are more likely to drop out due to inadequate social support and the 13.91 % who opted to remain neutral represents a significant number of students who could possibly drop out because they feel the college is not doing enough to provide social support.

Despite most students coming from underprivileged families (table 2b and table 3a) more than half of the respondents (63,74%) indicated that they are not likely to drop out if they find fulltime employment. Even though most participants are from poor households with limited income these results indicate that the participants value their education. This is maintained in a statement when 88, 82 % of the respondents indicated that they are persistent in pursuit of their college qualification. A few participants (14, 67 %) indicated that their families would

not be disappointed if they drop out. This give an indication that majority of the participants (88, 82 %) have full support from their family member for their pursuit of their college qualification. 93,99 % of the 299 respondents indicated that they are committed to completing their studies at the college and this indicate that most of them are not likely to dropout. This is evident when 90% of the respondents indicated that at the time of the study they were confident of earning a college diploma. Therefore these results indicate that most respondents are highly unlikely to dropout if they find fulltime employment and they are committed to their studies. It is also interesting that most participants have full family support and it is doubtful that they will dropout.

There are 13, 39% of the respondents who indicated that they were likely to quit because of poor college administration. Those who disagreed with this fact represented 75, 60% of the respondents. This gives an indication that students are generally happy with college governance

4.4 Relationship between the social characteristics and the attrition variables.

In the last step, five factors of students' attrition – described as factors 5.1 to 5.4 - indicate the likelihood of a respondent dropping out and the study treats them as response variables. A correlation analysis between these response variables and the academic, social and integration factors to determine which of the factors have significant correlation with the responses is first done and these factors will be subsequently used when discussing the predictors together with personal characteristics such as gender, income, mode of study, race, enrolled qualification, age group, field of study, marital status and family income. The environmental pull factors are not considered as they were not very reliable as per the Cronbach alpha's test. The five point Likert scale for the response variables are converted to binary outcomes with strongly disagree and disagree coded as 0 and agree and strongly agree coded as 1. The responses were converted into binary outcomes to fit a logistic regression model for each of the response variable with the predictors.

4.4.1 Likelihood of dropping out because of lack of student-lecturer interactions

This variable was found to significantly correlate with interest in things discussed in class (Q1.4), staying out of college because lectures are boring (Q1.9), the interpersonal relationship with other students (Q2.2). The predictors used in this case are therefore: gender, marital status, age group, race group, home language, enrolled qualification, field of study, parents'/guardian education qualification, household income, interest in things discussed in class (Q1.4), staying out of college because lectures are boring (Q1.9), and the interpersonal relationships with other students (Q2.2).

Table 4.13: Regression coefficients for the predictor variables for students dropping out due to lack of students-lecturer interactions

Covariates	2.5,%CI	Coefficients	97,5%CI
(Intercept)	-5,1471	-2,7368	-0,7838
Gender (Ref Female)		1	
Male	-2,2022	-0,628	0,642
Marital Status (Ref Single)		1	
Married	-2,4998	0,6198	3,0053
Widowed	-38,3539	-2,0803	15,6298
Age (Ref 16-20)		1	
21-30	-0,9873	0,4479	2,2846
31-40	-1,8883	1,1008	3,6295
41-50	-1,1425	2,8243	7,0061
Enrolled qualification(Ref NC 2-4)		1	
N1-N3	-36,2932	-2,2785	14,3421
N4-N6	-1,2171	0,1228	1,4088
Occupational/Learner ship	-38,6407	-0,922	17,4326
Other	0,7393	4,4344	8,8292
Mode of study (Ref Fulltime)		1	
Part-time	-4,6529	-1,9239	0,0634
Parent education (Ref Primary)		1	
Secondary	-1,1216	0,2605	1,8944
Tertiary	-2,4865	-0,,5663	1,2541
Household income (Ref 0-5000)		1	
5001-10000	-1,4616	0,6302	2,2917
10001-20000	-36,3074	-5,5011	9,688

20001-above	-3,1193	0,8253	4,2631
Q1.4.Interested (Ref Strongly disagree)		1	
Disagree	2,01	10,285	25,5301
Neutral	-2,6964	5,4012	20,4169
Agree	-1,7079	6,3722	21,3635
Strongly Agree	-1,579	6,5101	21,5149
Q1.9.Miss boring Class(Ref Strongly disagree)		1	
Disagree	0,9644	2,8409	5,4367
Neutral	0,4421	3,4468	6,4928
Covariates	2,5%CI	Coefficients	97,5%CI
Agree	3,5248	6,3259	9,8016
Strongly Agree	1,456	4,0788	7,2144
Q2.2. Interpersonal growth(Ref Strongly disagree)		1	
Disagree	-7,093	-3,2831	-0,1067
Neutral	-7,2906	-4,01	-1,221
Agree	-9,323	-5,7149	-2,7644
Strongly Agree	-10,0809	-6,2349	-3,1374

The Table above shows the regression coefficients and their credible intervals (CI) for the predictor variables. The likelihood of male students dropping out due to lack of student-lecturer interactions was 0.628 times less than that of females. Widowed and married students were less likely to drop out due lack of student-lecturer interactions than single students. This could be an indication that married and widowed are more emotionally mature and require less lecturer encouragement to study. Students aged between 31 and 50 were also more likely to drop out due to lack of student-lecturer interactions. This could imply that older students tend to be more critical of their facilitators and could more easily interpret a person's spoken and nonverbal actions. If they do not connect with the lecturer it is easy to opt out and they require less lecturer support than their younger counterparts because most are more intrinsically motivated. Examining enrolled qualification, those enrolled in N1-N3 were the least likely to drop out due to lack of lecturer-student relationship. Those doing other courses were the most likely to drop out than those doing NCV Level 2-4. Part-time students were 1.924 times less likely to drop out due to lack of students-lecturer interactions. Employment minimises the time that can be spent by the student on educational activities and this could lead to less class contact-time and possibly resulting in college withdrawal (Rokicka, 2014). The chance of students from families with income of more than R5000 per month dropping out due to lack of students-lecturer interaction was lower than those who came from families

with an income of R5000 or less per month. This could be an indication - as pointed out in the literature review of this study - that students from families with higher income are more motivated and have less financial concerns that could affect their academic progress.

Those students who claimed that they were not interested in the things said in the class were more likely to drop out due to lack of student-lecturer interactions than those who were neutral or who were interested in the things said in class. Those who claimed they missed class because it was boring were more likely to drop out than those who disagreed with that fact. Students who agreed that the interpersonal relationships they had with other students impacted on their intellectual growth were less likely to drop out than those who disagreed with that fact.

4.4.2 Likelihood of dropping out of college because of inadequate social support on Campus.

This section considers the personal characteristics and social factors as the predictor variables.

Table 4.14: Regression coefficients for the predictor variables for students dropping out due to inadequate social support in campus.

Covariates	2,5%CI	Odds	97,5%CI
(Intercept)	-2,9113	-1,2975	0,1602
Gender (Ref Female)		1	
Male	-0,4911	0,402	1,2725
Marital Status (Ref Single)			
Married	-4,8014	-0,998	1,908
Widowed	-8,1442	6,4591	36,1488
Age (Ref 16-20)			
21-30	-0,7016	0,263	1,3233
31-40	-4,5991	-1,2576	1,0453
41-50	0,0758	3,7522	7,4593
Enrolled qualification(Ref NCV 2-4)		1	
N1-N3	-2,1473	-0,1062	1,6059
N4-N6	-0,8846	0,1318	1,117
Occupational/Learner ship	-36,5527	-2,0711	14,7763
Other	2,7932	5,9761	10,2295
Mode of study (Ref Fulltime)			

Part-time	-3,3512	-1,7543	-0,4377
Parent education (Ref Primary)		1	
Secondary	-1,6231	-0,455	0,8198
Tertiary	-1,3206	-0,031	1,3361
Household income (Ref 0-5000)		1	
5001-10000	-2,1295	-0,4396	0,9147
10001-20000	-1,9964	0,0599	1,6838
20001-above	-6,5766	-2,273	1,0588

Table 4.14 continued

Covariates	2.5%CI	Odds	97.5%CI
Q2.1 Interpersonal Relation (Ref Strongly disagree)		1	
Disagree	-36,3322	-0,5671	3,805
Neutral	-5,3705	-1,9417	1,1661
Agree	-4,7457	-1,7132	1,3655
Strongly Agree	-5,1615	-2,1354	1,0132
Q2.2 Interpersonal Growth(Ref strongly disagree)		1	
Disagree	-1,1897	2,6159	6,7939
Neutral	-3,5751	-0,3281	3,0679
Agree	-3,4057	-0,0646	3,5408
Strongly Agree	-4,7615	-1,2289	2,3589
Q2.3 Emotional Connection (Ref Strongly disagree)		1	
Disagree	-1,4769	0,8273	3,4182
Neutral	-1,1598	1,0978	3,7288
Agree	-0,9996	1,2892	3,8566
Strongly Agree	-1,1571	1,3586	4,0142
Q2.4 Social Connection (Ref Strongly Disagree)		1	
Disagree	-3,9804	-1,778	0,4453
Neutral	-3,523	-1,5204	0,5727
Agree	-2,7781	-0,8194	1,2351
Strongly Agree	-6,0898	-2,8752	-0,257
Q2.5 College Extracurricular (Ref Strongly Disagree)		1	
Disagree	-4,1046	-1,8698	0,2128
Neutral	-4,3696	-1,8364	0,4546
Agree	-3,5482	-1,1198	1,176
Strongly Agree	-2,444	0,0633	2,5184
Q2.6. College Organization (Ref Strongly Disagree)		1	
Disagree	-0,5846	1,2667	3,4314
Neutral	-1,8778	0,3938	2,7548
Agree	-1,7272	0,4495	2,8366
Strongly Agree	-1,6962	1,3892	4,4486
Q2.7 Friendly people (Strongly disagree)		1	
Disagree	-2,0597	1,2194	4,9818
Neutral	-1,4718	1,2381	4,6165
Agree	-1,1956	1,557	4,9904
Strongly Agree	-2,457	0,6049	4,2871
Q2.8. Wear Emblem (Ref Strongly disagree)		1	
Disagree	-0,3562	0,693	1,7767
Neutral	-2,9547	-0,2584	1,712
Agree	-0,6294	0,8636	2,3403
Strongly Agree	-2,5237	-0,0785	2,0614

As illustrated in Table 4.14, male students were less likely to drop out due to inadequate social support on the campus. Widowed students were more than 6 times likely to drop out due to lack of social support than single students. Students aged 41-50 were 3,7 times more likely to drop out due to inadequate social support than those aged 16-20 years, possibly older students are fewer and find it difficult to relate to younger students. On the other hand, students aged 31-40 were 1, 2 times less likely to drop out than those aged 16-20 years. This could further indicate that younger students are less reserved and find it easy to make new friends quicker than older students. Students enrolled for qualifications N1-N3, N4-N6 and occupational or learnerships were almost 6 times more likely to drop out due inadequate social support than enrolled for NCV level 2-4. NCV programme is a year-long course of study while National Accredited Technical Education Diploma (NATED) programmes are either a semester (N4 – N6) or a trimester (N1 – N3) programme. This could mean that NCV students spend longer periods at college enough for them to adjust, make social contacts and friends than NATED students.

Part timers were 1, 7 times less likely to drop out due to inadequate social support on campus. Part time students generally spend less time on campus and could possible view college as only an academic place not for socialising and have social support at work or elsewhere. Students who came from families with incomes between R0 - R5000 were more likely to drop out due to inadequate social support than those from other income groups. These finding support conclusions from Morales (2010) that students from lower income households develop social and academic skills more slowly compared to students from higher socio-economic groups. Students who strongly agreed that they were happy about the interpersonal relationships with other students, and that the interpersonal relationships they had with their colleagues had an impact on their intellectual growth, were less likely to drop out due to inadequate social support than those who strongly disagreed. Those students who felt socially connected with other members of staff were less likely to drop out than those who felt otherwise.

4.4.3 Likelihood of dropping out of college of college because of poor college administration

This section considers the personal characteristics and the organisational factors as the predictor variables.

Table 4.15: Regression coefficients for the predictor variables for students dropping out due to poor college administration

Covariates	2.5%CI	Coefficients	97.5%CI
(Intercept)	-4,5839	-2,718	-1,1499
Gender (Ref Female)		1	
Male	-1,2182	-0,2289	0,6738
Marital Status (Ref Single)		1	
Married	-4,4419	-0,9357	1,6072
Widowed	-37,0704	-4,4739	11,5553
Age (Ref 16-20)		1	
21-30	-0,2148	0,7953	1,9697
31-40	-2,6816	0,0661	2,116
41-50	-1,1823	2,4336	5,9806
Enrolled qualification(Ref NCV 2-4)		1	
N1-N3	-2,0334	-0,0538	1,5734
N4-N6	-1,0576	-0,007	1,0159
Occupational/Learner ship	-37,9872	-1,2044	16,7166
Other	-1,189	2,1474	5,2213
Mode of study (Ref Fulltime)		1	
Part-time	-2,5348	-1,046	0,2196
Parent education (Ref Primary)		1	
Secondary	-0,5126	0,7238	2,2386
Tertiary	-0,5515	0,8268	2,4372
Household income (Ref 0-5000)		1	
5001-10000	-1,6106	0,0114	1,3458
10001-20000	-3,1588	-0,5956	1,2283
20001-above	-2,7364	0,6094	3,2007

Table 4.15 continued

Covariates	2.5%CI	Coefficients	97.5%CI
Q3.1 Aware of rules(Ref Strongly disagree)		1	
Disagree	-2.0541	2.4507	7.0686
Neutral	-6.4042	-1.3223	3.2856
Agree	-5.0546	-1.0114	2.9403
Strongly Agree	-4.1584	-0.1129	3.8995
Q3.3 Communicates News (Ref Strongly disagree)		1	
Disagree	-1.7283	0.5864	3.3106
Neutral	-2.3158	0.2714	3.1032
Agree	-1.2348	0.927	3.5162
Strongly Agree	-35.8697	-7.0337	7.2227
Q3.4. Communicate fees (Ref Strongly disagree)		1	
Disagree	-5.054	-1.8381	1.0929
Neutral	-1.4475	1.8737	5.2732
Agree	-6.5622	-3.5113	-0.8185
Strongly Agree	-5.2971	-2.0786	0.6464
Q3.5 Communicate events (Ref Strongly disagree)		1	
Disagree	-0.7995	1.6361	4.3341
Neutral	-4.075	-0.9463	1.8876
Agree	-0.6488	1.6126	4.1659
Strongly Agree	-41.9834	-0.6998	19.3823
Q3.6 Financial Aid (Ref Strongly disagree)		1	
Disagree	-1.0533	1.5202	4.2904
Neutral	-1.5375	1.1338	4.1006
Agree	-1.7068	0.6949	3.3301
Strongly Agree	-1.0167	1.3602	4.0798
Q3.7 Provide services(Ref Strongly disagree)		1	
Disagree	-2.6592	0.4126	3.946
Neutral	-6.7592	-3.4231	-0.1781
Agree	-2.5883	0.3211	3.6201
Strongly Agree	-6.9754	-2.0235	1.9449
Q3.8 Attend student needs(Ref Strongly disagree)		1	
Disagree	-2.9434	-0.785	1.3605
Neutral	-4.5965	-2.0075	0.3471
Agree	-2.3254	-0.2206	2.0168

Strongly Agree	-6.1341	-1.8355	1.5214
Q3.9 Involvement in decision (Ref Strongly disagree)		1	
Disagree	-5.895	-3.3536	-1.0051
Neutral	-6.319	-3.3209	-0.5656
Agree	-5.5161	-2.6362	0.0804
Strongly Agree	-4.0811	-0.6167	2.7824
Q3.10 Consult students (Ref Strongly disagree)		1	
Disagree	0.3753	2.8944	5.7046
Neutral	-0.8908	1.5796	4.3061
Agree	-0.1469	2.3361	5.1243
Strongly Agree	-0.3765	2.9383	6.2573

Male students were 0, 29 less likely to drop out of college because of poor college administration than female students. On marital status, widowed students were more likely to stay in college than married students. Students aged from 41-50 were more likely to drop out of college because of poor college administration than the rest of the students. Older students tend to take careful consideration of life and prefer to associate with institutions with sound organisational, administrative and management practices (Rokicka, 2014). Students with enrollment qualifications other than N1-N3, N4-N6 and occupational or learnerships were twice less likely to drop out due to poor college administration than those with NCV level 2-4 enrollment. Part-time students were 1,046 times less likely to drop out of college due to poor college administration than full-time students. Students who strongly agreed that they were aware of the rules were far less likely to drop out due to poor college administration than those who were not aware of the rules. Those students who claimed that they were not given financial aid by the college were more likely to drop out than those who were given financial aid.

4.4.4 Likelihood of dropping out of college if the respondent can find a fulltime job.

This section engages the respondents' personal characteristics as the predictor variables, as presented in Table 4.16.

Table 4.16: Regression coefficients of the predictor variables for students dropping out because of securing a fulltime job

Covariates	2.5%CI	Coefficients	97.5%CI
(Intercept)	-2,4391	-1,1513	0,0559
Gender (Ref Female)		1	
Male	0,2127	0,9652	1,7282
Marital Status (Ref Single)		1	
Married	-2,1942	-0,0521	1,7088
Widowed	-39,5447	-1,1361	17,5729
Age (Ref 16-20)		1	
21-30	-0,5403	0,2806	1,1499
31-40	-1,4134	0,3461	1,9001
41-50	-2,7408	0,5696	3,4327
Enrolled qualification(Ref NC 2-4)		1	
N1-N3	-0,3001	1,1959	2,7261
N4-N6	-0,6864	0,1633	1,0035
Occupational/Learner ship	-36,3095	-2,1779	14,5051
Other	-0,9102	2,3586	5,1412
Mode of study (Ref Fulltime)		1	
Part-time	-2,88	-1,6682	-0,5968
Parent education (Ref Primary)		1	
Secondary	-1,2266	-0,2857	0,6913
Tertiary	-,514	-0,4475	0,6198
Household income (Ref 0-5000)		1	
5001-10000	0,3039	1,4175	2,5827
10001-20000	-4,3709	-1,711	0,1837
20001-above	-3,2982	0,0084	2,5269

From Table 4.16, male students were slightly less likely to drop out because of securing a fulltime job than female students. Single students on the other hand were more likely to drop out of college in the event that they secured a full time job than married or widowed students. Age had a linear relationship with dropping out as a result of securing a full-time job. As age increases, the likelihood of dropping out as a result of securing a full time job increased. Students whose parents or guardians had a higher education qualification were less likely to drop out if they secured a full-time job than those whose parents and/or guardians had a lower educational qualification.

4.5 CONCLUSION

This chapter presented data of the study and an analysis and interpretation of the results of the study. The next chapter presents the summary of findings, conclusion, limitations and make recommendations for practice and further research.

CHAPTER FIVE: SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

The purpose of this study was to investigate factors influencing student attrition at Umgungundlovu TVET College. This is the final chapter and it provides a summary of the study. The recommendations which are based on the findings in the previous chapter, are for practice and further research directions in strategic enrolment management. This chapter also presents the concluding remarks which are based on the critical questions that were raised in chapter 1.

Student attrition, also known as college dropout, student withdrawal and student exclusion, is one of the most pertinent issues confronting the education system, more in particular South African institutions of higher learning. As indicated in chapter 1 more than a quarter of all students registered in the South African Institutions of higher learning drop out in their first year of study. The South African graduation rate is one of the lowest in the world (Letseka and Maile, 2008; Council on Higher Education (CHE), 2011). This gives an indication that not all students received benefits from the education system. In South Africa, education is allocated a huge portion in the country's budget. Failure of the education system to produce skilled graduates has huge cost implications for the country's economy (Organisation for Economic Cooperation and Development (OECD), 2013). Thus returns on investment are poor.

To deal with the problem it is deemed necessary to find out the root cause of the problem. Literature has established various reasons leading to student attrition (Neethling, 2015; Arias Ortiz & Dehon, 2011). In this study the four constructs identified in Beans' model of student attrition were tested as to whether they hold true in the case of Umgungundlovu TVET College. Bean's theoretical model provides a comprehensive approach to studying student attrition. In his model he identified student background, institutional (organisation) factors, academic integration factors, social integration factors and environmental pull factors as possible contributors to student attrition. Factors leading to student attrition differ from one institution to another and are generally not well understood or catered for by most TVET Colleges enrolment management plans in South Africa (DHET, 2014). The purpose of this

study was to investigate the existence of these factors at Umgungundlovu TVET College and the extent of their influence. Gaining an understanding of these factors is aimed at improving knowledge and information about student attrition at TVET Colleges in order to institute appropriate strategic enrollment management practices.

5.2 Summary of findings from the literature review and contribution of the study

There are 50 TVET Colleges in South Africa. The aim of TVET Colleges is to serve society by providing practical and vocational skills required in the labour force. TVET Colleges offer vocational and technical education and they differ from universities which largely offer academic education. TVET Colleges cater for individuals who opt for vocational training. In TVET Colleges students are awarded National Vocational Certificates and National Accredited Technical Education diplomas on completion of training.

According to DHET (2016), TVET Colleges are confronted by systemic and structural challenges which result in low certification rates and high student attrition rates. Such challenges sabotage the Department of Higher Education and Training's (DHET) plan to expand the sector and to address the shortage of artisans in the country. More than half of the students leave the system without obtaining their qualifications. The throughput is very low averaging at 34,5 % and 42,3 % for NCV and NATED respectively in 2014. Student attrition is the main problem and it is compounded by many different student and institution circumstantial factors.

Student attrition is well documented in South Africa, however little is known or done about factors influencing student attrition in TVET colleges. In chapter two it was established that there are various reasons that leading to student attrition. Student attrition may be voluntary or involuntary. At times students cannot determine their fate as there are personal and institutional problems preventing them from reaching their educational goals. Christo and Oyinlade (2015) concur that student attrition can be an unplanned or a planned conscious decision to withdraw from a TVET College. Such a decision may be influenced by student lack of interest, feeling of boredom, lack of integration at college and affordability.

Student background, college administration, governance, teaching, social and academic integration factors and environment pull factors were cited in chapter two as having a pulling effect on student retention. Ineffectiveness and inequitableness on the part of the college promotes student attrition. The instructional offerings or courses offered by the institutions that do not cater for the needs and interest of the students, let alone the way they are presented to students encourages student attrition. College administrators and staff play a key role in ensuring a fruitful stay by students at colleges. Lack of academic and social integration promotes student attrition. Students who do not identify with faculty members and other students often feel lonely and not supported. Academic institutions provide both academic and social integration for students, the objective being to encourage successful student participation in scholastic activities. Close friendships at college was also been cited in chapter two as fostering learning, sharing and providing a good support system. Colleges that provide social support such as sports, social and cultural activities promote social integration and create long lasting memories for students. There are however factors that are beyond the control of the academic institution, such as death, poor health, student getting pregnant, a student securing full time employment. The latter environmental factors exert a 'pulling away' effect on student retention efforts.

Student success is commonly used as a measure of an institution's success. With high student attrition at TVET colleges, it could mean that relatively few students succeed at these institutions. Strategic enrolment planning is essential to cater for all student attrition influences creeping into the TVET College system. Strategic enrolment plans ensure that students are retained in the system. Student retention is vital for the colleges' existence. Student retention assures colleges of continued income through payment of tuition fees and government grants. Therefore, this study is aimed at contributing to the existing knowledge on strategic enrolment management. Findings in this study will contribute to student success and retention at TVET Colleges and other institutions of learning. The findings of this study are also aimed at helping policy makers and administrators in creating appropriate strategic enrolment management plans aimed at retaining students in the education system. Identifying the roots of the problem, which in this case are influences leading to attrition, can help policy makers and administrators in educational institutions to mitigate them. Lessons learnt from this study can be applied to other institutions, which might have the similar conditions leading to student attrition. Academic and social integration at TVET Colleges is an under-researched topic that not only affects students but also educational institutions, the labour

force and future skills plans of the country. It is intended that this study will contribute in the improvement of the return on investments made by the South African government on education, in particular TVET sector.

5.3 Summary of findings from the quantitative study

The students at the Umgungundlovu TVET College are mostly black Africans, females and study full time. The majority of the students are enrolled for business studies followed by utility studies. Most participants indicated that their parents never completed high school, and they are from underprivileged families; their household income is less than five thousand Rand per month. Students are drawn to TVET Colleges because they are more affordable than private colleges. Males tend to register for engineering studies and females often prefer office related occupations. This study indicated that academic integration, social integration and organisational factors were the most reliable in measuring student attrition at the Umgungundlovu TVET College. Environmental pull factors were shown to be not very reliable when measuring the student attrition rate.

The organisational factors that were found to influence student attrition at Umgungundlovu TVET College included the fact that there are a few selected programme offerings; there is lack of student career counselling, limited financial aid and limited student consultation. The college offers limited qualifications in business, utilities and the engineering disciplines. Students have limited choices and eventually enrol for programmes that they did not intend to register for. Students are only informed of the qualification requirements during registration. They do not get full career counselling and guidance from the college. Career counselling is confused with informing students about college qualification requirements. There is an uneven distribution of gender among different disciplines with more females in business studies and males opting for engineering studies. As a result male students were 0,229 times less likely to drop out of college because of poor college administration than female students. This results in isolation of certain individuals across disciplines. Most students are reliant on financial aid since the majority indicated that they are from poor families. With many students relying on the college for financial aid, there is a strain on the college's finances and the college ends up not fully subsidising all deserving students. Some students indicated that they are not consulted by management about decisions regarding the college's operations. Therefore students felt that the college is not interested in their needs.

Having dealt with organisational factors, questions were posed about the extent of academic and social integration on student attrition at Umgungundlovu TVET College. The academic integration factors that were found to influence student attrition included students lacking study skills and the college offering students more theory than practical approach to technical and vocational teaching. Students are not coping with academic work because they initially thought that TVET Colleges offers less study work and more hands-on and practical training. This is also compounded by students having major uncertainties. Students are generally happy with their intellectual growth since having enrolled at the college, but they felt that they were not socially connected with the staff members on the campus. Students however indicated that they were happy with their interpersonal relationships with other students at the Umgungundlovu TVET College, and point out that students on the campus were friendly. This study established that the college does little to encourage students to partake in extra curriculum activities and have limited resources; consequently most students are not happy with facilities and service at the college. Limited participation in social and extracurricular activities results in students' partial social integration at Umgungundlovu TVET College.

The study further indicated that most students do not wear clothing with the Umgungundlovu TVET college emblem, which could imply that the students at the college do not take pride in their college. A few students believed that there were other colleges much better than Umgungundlovu College. This highlighted the need for the college to invest in academic resources, facilities and extra curricula activities. Furthermore colleges need to maintain links with student families and potential employers because their influence could create a pulling force, pulling students away from the institution.

The above findings are consistent with the findings in Moodley and Singh (2015) study; Moodley and Singh reiterated that students leave institutions of learning prior to graduating. They pointed out affordability; lack of academic support and the lack of career guidance aggravating the situation. Different researchers share the same sediment, for example Rokicka, (2014) indicated that as students needed to work part-time to fund their studies, their academic performance is compromised. Ratelle et al. (2005) found that negative social and academic integration experiences hinder commitment and produce attrition. Other themes that emerged from other studies to influence student attrition were concerned with enormous college work load, time management, lack of social support, poor proficiency in the medium

of instruction, reading and processing skills, teaching and learning and many facets identified fall within the institution control (Ascend Learning, LCC. 2012; Christo & Oyinlade, 2015; Chai & Gibson, 2015).

5.4 Recommendations

In light of the findings from the previous chapter, including the discussion surrounding these findings, and considering literature on strategic enrolment management, the following recommendations are proposed for policy makers, managers, administrators and all stakeholders involved in the TVET sector:

Every TVET College should have an enrolment management plan, which should involve all stakeholders of the institution. Its intention should be more than achieving sustainable student retention and securing income for the institution. It should be a predetermined plan aimed at making the college processes meaningful for students, and provide enduring experiences that encourage students to stay at college. All retention efforts by the colleges need to be based on research.

In order to mitigate student attrition the college enrolment management plans need to be re-configured so that they cover the following:

- Inclusive of every student, developed and implemented taking into cognisance of the student demands, college capacity and priorities;
- It should facilitate strong collaboration between academic and student affairs leadership, employers and all interested parties. Such collaboration should be built on trust, respect, and should value diversity in order to accommodate students from different walks of life;
- College processes such as student admission should consider students' interests, capabilities and should be student centred. Orientation and induction of students should be driven by genuine concerns for the needs and welfare of students;
- Retention efforts by colleges should be dynamic so that they can deal with educational challenges which can surface at different stages of the college experience;
- Holistic development of the student is important, extra curricula activities, wellness centres, writing centres and financial assistance needs to be taken care of in colleges;

- Colleges also need to invest in resources, facilities, the latest technology and this will make vocational training relevant to student needs and the labour market;
- College leadership should be visible and supportive of employees of the colleges so that college employees can provide high quality service to students.

5.5 Limitations of the study

This study is limited to two campuses of the Umgungundlovu TVET College. Readers should approach the current findings and conclusions with caution as they may be unique to the two campuses under investigation. The results of the study should not be interpreted as applicable to all colleges because of the sample and geographic limitations resulting from the study being done only in one College. Studies need to be conducted about factors contributing to student attrition in all 50 TVET colleges and it should also be conducted from the perspective of those students who have already withdrawn from the system. Conclusions of this study are therefore limited to Umgungundlovu TVET College however recommendations may be applicable to all TVET Colleges dealing with student attrition.

The current study reflected the perception of the students who are currently enrolled in the college. Perceptions from the students who have dropped out were not factored in, thus limiting the scope of the study. Views and perceptions of other stakeholders such as college administrators, lecturers and managers need to be considered to get a holistic picture of student attrition at Umgungundlovu TVET College.

5.6 Suggestion for future research

Further research need to be conducted on the effects of student induction and orientation programmes on retaining students at TVET colleges. Further research needs to be conducted looking at the different dynamics and functioning of TVET colleges and their capabilities of providing vocational education. More studies are required to look at the relevance of the college curricula and teaching in relation to labour demands. Further studies on additional influences that might result in student attrition are essential to cater for the changing environment in the TVET sector, therefore more models on student attrition need to be developed and tested in order to mitigate student attrition.

5.7 Conclusion

This study gives a description of factors influencing students' attrition at Umgungundlovu TVET College, and the extent of their influence. This study has highlighted several different factors influencing attrition at Umgungundlovu TVET College. Based on the findings of the study, it can be concluded that the four objectives set out in chapter one have been met and the questions posed have been answered. The study has raised the concerns and issues of the students at TVET Colleges related to student attrition. These insights were useful in making pertinent and practical recommendations on dealing with student attrition at TVET Colleges and in the field of strategic enrolment management. Limitations and areas of weakness provided in the study were examined and the researcher was able to recommend possible actions for TVET Colleges' managers, administrators and policy makers

REFERENCES

- Adigun, J., Onihunwa, J., Irunokhai, E., Sada, Y., & Adesina, O. (2015). Effects of gender on students' academic performance in computer studies in secondary school in New Bussa, Borgu local government of Niger state. *Journal of Education and Practice*, 6(33), 1-7. Retrieved from <http://files.ed.gov/fulltext/EJ1083613.pdf>
- Akoojee, M. S. A. (2007). *Private technical and vocational education and training (TVET) and national development: The South African reality* (Doctoral dissertation, University of the Witwatersrand). Retrieved from <http://wiredspace.wits.ac.za/handle/10539/5855>
- Ali, A., & Gracey, D. (2013). Dealing with student disruptive behaviour in the classroom – A case example of the coordination between faculty and assistant dean for academics. *Proceedings of the Informing Science and Information Technology Education Conference 2013, 10*, 1–15. Retrieved from <http://www.editlib.org/p/114636>
- Ali, N., Jusoff, K., Ali, S., Mokhtar, N., & Salamat, A. S. A. (2009). The factors influencing students' performance at Universiti Teknologi MARA Kedah, Malaysia. *Management Science and Engineering*, 3(4), 81–90. doi.org/10.1080/0376835X.2013.817307
- Angelino, L. M., Williams, F. K., & Natvig, D. (2007). Strategies to engage online students and reduce attrition rates. *The Journal of Educators Online*, 4(2), 1–14. Retrieved from <http://www.theojeo.com/Volume4Number2/Angelino%2520Final.pdf>
- Arbona, C., & Nora, A. (2007). The influence of academic and environmental factors on Hispanic college degree attainment. *The Review of Higher Education*, 30(3), 247–269. doi.org/10.1353/rhe.2007.0001

- Arias Ortiz, E., & Dehon, C. (2011). The roads to success: Analyzing dropout and degree completion at university. *ECARES Working Paper*, 25, 1–31. Retrieved from http://ecares.ulb.ac.be/index.php?option=com_content&task=view&id=Itemid=367
- Arnold, A. (1999). Retention and persistence in postsecondary education: A summation of research studies. *Texas Guaranteed Student Loan Corporation*, (March), 22.
- Ascend Learning, LLC. (2012). *Student attrition: Consequences, contributing factors, and remedies*. Retrieved from http://www.atitesting.com/Libraries/pdf/Attrition_whitepaper_ATI
- Astin, A. W. (1993). What matters in college. *Liberal Education*. doi:10.1057/palgrave.cpcs.8140196
- Attwood, G., & Croll, P. (2006). Truancy in secondary school pupils: Prevalence, trajectories and pupil perspectives. *Research Papers in Education*, 21(4), 467–484. doi:10.1080/02671520600942446
- Battin-Pearson, S., Newcomb, M. D., Abbott, R. D., Hill, K. G., Catalano, R. F., & Hawkins, J. D. (2000). Predictors of early high school dropout: A test of five theories. *Journal of Educational Psychology*, 92(3), 568–582. doi:10.1037/0022-0663.92.3.568
- Bean, J. P. (1980). Dropouts and turnover: The synthesis and test of a causal model of student attrition. *Research in Higher Education*, 12(2), 155–187. doi:10.1007/BF00976194
- Bean, J. P. (1983). The application of a model of turnover in work organizations to the student attrition process. *Review of Higher Education*, 6(2), 129–148. doi:10.1353/rhe.1983.0026
- Bean, J. P., & Metzner, B. S. (1985). A conceptual model of nontraditional undergraduate student attrition. *Review of Educational Research*, 55(4), 485–540. doi:10.2307/1170245

- Bean, J. P. (1990a). Strategic planning and enrolment management. In D. Hossler, & J. P. Bean (Eds.), *The Strategic Management of College Enrolments* (pp. 21-43). San Francisco: Jossey-Bass.
- Bean, J. P. (1990b). Why students leave: Insight from research. In D. Hossler, & J. P. Bean (Eds.), *The Strategic Management of College Enrolments* (pp. 147-169). San Francisco: Jossey-Bass.
- Bean, J. P. (1990c). Using retention research in enrolment management. In D. Hossler, & J. P. Bean (Eds.), *The Strategic Management of College Enrolments* (pp. 170-185). San Francisco: Jossey-Bass.
- Bean, J. P. (2005). Nine themes of college student retention. In A. Seidman (Ed.), *Student college retention: Formula for student success* (pp. 215 – 244). New York: Rowman & Littlefield.
- Beaumont, D. J. (2012). *Service quality in higher education: The students' viewpoint* (Masters dissertation, Manchester Business School, England). Retrieved from <https://respository.edgehill.ac.uk/2360/1/BeaumontODohertyShannonReconceptualizingFeedbackFinal.doc>
- Beeson, M. J., & Wessel, R. D. (2002). The impact of working on campus on the academic persistence of freshmen. *NASFAA Journal of Student Financial Aid*, 32(20), 37-45.
- Berger, J. B. & Lyon, S. C. (2005). Past to present: A historical look at retention. In A. Seidman (Ed.), *College Student retention: Formula for Student success* (pp1 – 30). Westport, CT: Praeger Publishers.
- Bhattacharjee, A. (2012). Social science research: Principles, methods, and practices. *Global Text Project*, 2, 9-23. doi:10.1186/1478-4505-9-2
- Boone, H. N & Boone, B. A. (2012). Analyzing likert data. *Journal of Extension*, 50(2). Retrieve from <http://www.joe.org/joe/2012> April.

- Booth, A., & Dunn, J. F (Eds). (2013). *Family-school links: How do they affect educational outcomes*. New York: Routledge.
- Burrus, J., & Roberts, R. D. (2012). Dropping out of high school: Prevalence, risk factors, and remediation strategies. *R & D Connections*, 18. Retrieved from www.ets.org
- Burrus, J., Elliott, D., Brenneman, M., Markle, R., Carney, L., Moore, G., Betancourt, A., Jackson, T., Robbins, S., Kyllonen, P. and Roberts, R. D. (2013). Putting and keeping students on track: Toward a comprehensive model of college persistence and goal attainment. *ETS Research Report Series*. doi:10.1002/j.2333-8504.2013.tb02321.x
- Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2006). What matters to student success: A review of the literature. *Commissioned Report for the National Symposium on Postsecondary Student Success Spearheading a Dialog on Student Success* (Vol. 18). Retrieved from <http://cpe.ky.gov/NR/rdonlyres/AFA304F0-C125-40C2-96E5-7A8C98915797/0/WhatMatterstoStudentSuccessAReviewoftheLiterature.pdf>
- Cabrera, A. F., Nora, A., & Castañeda, M. B. (1992). The role of finances in the persistence process: A structural model. *Research in Higher Education*, 33(5), 571–593. doi:10.1007/BF00973759
- Carter, W. C. (2004). *Six major reasons why graduate students don't finish*. Carter's Educational Group, LCC. Retrieved from http://www.tadafinallyfinished.com/tada_exec_summary.pdf
- Chai, K. E. K., & Gibson, D. (2015). Predicting the risk of attrition for undergraduate students with time based modelling. *Proceedings of the 12th International Conference on Cognition and Exploratory Learning in the Digital Age, CELDA 2015*, 109–116. Retrieved from <http://www.scopus.com/inward/record.url?eid=2-s2.0-84961786619&partnerID=tZOtx3y1>
- Chapman, C., Laird, J., & Kewalramani, A. (2011). Trends in high school dropout and completion rates in the United State : 1972 – 2008. *Population English Edition*, 52, 1972–2008. doi.org/10.1007/s10530-009-9608-z

- Council on Higher Education. (2011). *2010 - 2011 annual report*. Pretoria: Council on Higher Education (CHE).
- Cismas, S. C. (2010). Stress factors in academic environments : Inventory of student issues in Romanian technical universities. *Proceedings of the World Medical Conference*, 297–301. Retrieved from <http://www.wseas.us/e-library/conference/2010/Malta/Medical-41.pdf>
- Coen, S. (2012, June 13). Seven steps for creating a college marketing and communication plan [Web Blog post]. Retrieved from <http://www.blackboard.com/sites/student-services/assets/pdf/white-marketing.pdf>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). California: SAGE Publications.
- Crosling, G., Heagney, M., & Thomas, L. (2009). Improving student retention in higher education: Improving teaching and learning. *Australian Universities' Review*, 51(2), 9–18.
- Cuseo, J. (2009). *Student success, college quality, & the first-year experience: What Really Matters*. Paper presented at the 22nd International Conference on the first- year experience. Retrieved from <http://sc.edu/fye/events/presentation/international/2009/int2009/49-c.pdf>
- Davidson, W. B., Beck, H. P., & Milligan, M. (2009). The college persistence questionnaire: Development and validation of an instrument that predict student attrition. *Journal of College student development*, 50(4), 373 – 390.
- Demetrio, C., & Schmitz-Sciborski, A. (2011). Integration, motivation, strength and optimism: Retention theories past, present and future. In R. Hayes (Ed.), *Proceedings of the 7th National Symposium on Student Retention, 2011, Charleston*. (pp. 300 – 312). Norman, OK: The University of Oklahoma.

- Department of Education (DOE). (1995). White paper on education and training. *Government Gazette*. (Vol. 375, No. 45621).
- Department of Education (DOE). (1998). Education white paper 4: A programme for the transformation of further education and training: Preparing for the twenty-first century through education, training and work. *Government Gazette*.
- Department of Education (DOE). (2001). *National plan for higher education in South Africa*. Pretoria: Government Printers.
- Department of Higher Education and training (DHET). (2013). White paper for post-school education and training. Building and expanded, effective and integrated post-School system. *Government Gazette*
- Department of Higher Education and training (DHET). (2014a). *National skills development strategy III progress report 2011 -2013*. Pretoria. DHET
- Department of Higher Education and training (DHET). (2014b). *Statistics on post-school education and training in South Africa: 2012*. Pretoria. DHET.
- Department of Higher Education and Training (DHET). (2014c). *Minister Nzimande's speech: TVET conference 18-19 November*. Pretoria: DHET
- Department of Higher Education and Training (DHET). (2016). *Statistics on post-school education and training in South Africa: 2014*. Pretoria: DHET
- DeRemer, M. A. (2002). *The adult student attrition decision process (ASADP) model*. (Doctoral thesis, University of Texas). Retrieved from [http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:The+Adult+Student+Attrition+Process+\(ASADP\)+Model#0](http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:The+Adult+Student+Attrition+Process+(ASADP)+Model#0)

- Eaton, S. B., & Bean, J. P. (1995). An approach/avoidance behavioral model of college student attrition. *Research in Higher Education*, 36(6), 617–645. doi:10.1007/BF02208248
- EFA Global Monitoring Report. (2015). *Education for all 2000-2105: Achievements and challenges*. Paris: UNESCO
- Feldman, M. J. (1993). Factors associated with one-year retention in a community college. *Research in Higher Education*, 34(4), 503–512. doi:10.1007/BF00991857
- Figler, H. E. (1979). Building a career foundation, In E. Watkins (Ed), *Preparing Liberal Arts Studenta for Careers: Vol. 6. New directions for education, work, and careers* (pp. 17 -34). San Francisco: Jossey-Bass.
- Fizer, D. (2013). *Factors affecting career choices of college students enrolled in agriculture* (Master's thesis). Retrieved from https://www.utm.edu/departments/msanr/_pdf/Fizer_Project_Final.pdf
- Funston, A. (2012). Non-traditional students making their way in higher education: An Australian case study. Retrieved from http://web.education.unimelb.edu.au/ycrc/linked_documents/RR35.pdf
- Further Education and Training Colleges Amendment Act 2013 (RSA). 36271. (RSA)
- Geisinger, B. N. I., & Raman, D. R. (2013). Why they leave: Understanding student attrition from engineering majors. *International Journal of Engineering Education*, 29(4), 914–925.
- Gerdes, H., & Mallinckrodt, B. (1994). Emotional, social, and academic adjustment of college students: A longitudinal study of retention. *Journal of Counseling & Development*, 72(3), 281–288. doi:10.1002/j.1556-6676.1994.tb00935.x
- Gewer, A. (2010a). *Choices and chances: FET colleges and the transitions from school to work*. Cape Town: National Business Initiative.

- Gewer, A. (2010b). Improving quality and expanding the further education and training college system to meet the need for an inclusive growth path. *Development Bank of Southern Africa*. Retrieved from <https://www.dbsa.org/EN/About-Us/Publications/Documents/Improving%20quality%20expanding%20expanding%20the%20further%20education%20training%20college%20system%20inclusive%20growth.pdf>
- Gleason, P., & Dynarski, M. (2002). Do we know whom to serve? issues in using risk factors to identify dropouts. *Journal of Education for Students Placed at Risk (JESPAR)*, 7(1), 25–41. doi:10.1207/S15327671ESPR0701_3
- Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for likert-type scales. *Midwest Research to Practice Conference in Adult, Continuing, and Community Education*, 82–88. doi:10.1109/PROC.1975.9792
- Gray, J., & Hackling, M. (2009). Wellbeing and retention: A senior secondary student perspective. *Australian Educational Researcher*, 36(2), 119–145. doi:10.1007/BF03216902
- Grayson, J. P., & Grayson, K. (2003). *Research on retention and attrition* [Adobe Digital Edition]. Retrieved from https://www.tru.ca/__shared/assets/Grayson_2003_research_on_retention_and_attrition23683.pdf
- Greatbatch, D., & Holland, J. (2016). Teaching quality in higher education : Literature review and qualitative research May 2016. *Open Government Licence (OGL)*, 73. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/524495/he-teaching-quality-literature-review-qualitative-research.pdf
- Green, T. (2012). *Strategic enrolment management and the academic enterprise: Indiana state university* [DX Reader version]. Retrieved from <https://www2.indstate.edu/studentsuccess/pdf/SEMandtheAcademicEnterprise.pptx>

- Greener, S. (2008). *Business research methods*. Brighton: Ventus Publishing.
- Grizzel, J., & Mcneil, M. (2007). Linking health to academic success and retention. *Spectrum*. Retrieved from <https://und.edu/health-wellness/healthy-und/linking-health-to-academic-success-retention.pdf>
- Hammond, C., Linton, D., Smink, J., & Drew, S. (2007). Dropout risk factors and exemplary programs. *Dropout Prevention Center/Network* (Technical report No. 1–282). Retrieved from <https://files.eric.ed.gov/fulltext/ED497057.pdf>
- Hanover Research. (2014). Trends in higher education marketing, recruitment, and technology. *Hanover Research Report*. Retrieved from <http://www.hanoverresearch.com/media/Trends-in-Higher-Education-Marketing-Recruitment-and-Technology-2.pdf>
- Hartley, M. T. (2010). Increasing resilience: Strategies for reducing dropout rates for college students with psychiatric disabilities. *American Journal of Psychiatric Rehabilitation*. doi:10.1080/15487768.2010.523372
- Harvey, A., & Luckman, M. (2014). Beyond demographics: Predicting student attrition within the bachelor of arts degree. *The International Journal of the First Year in Higher Education*, 5(51), 1838–2959. doi:10.5204/intjfyhe.v5i1.187
- Hodgson, G. M. (2006). What are institutions. *Journal of Economic Issues*, 40(1), 1-25. doi:10.1080/00213624.2006.11506879
- Hossler, D., & Bean, J. P. (1990). *The strategic management of college enrolments*. San Francisco: Jossey-Bass.
- Jensen, U. (2011). Factors influencing student retention in higher education. *Kamehameha Schools Research & Evaluation*. Retrieved from http://www.ksbe.edu/_assets/spi/pdfs/Retention_Brief.pdf

- Jerald, C. D. (2006). Identifying potential dropouts: Key lessons for building an early warning data system. *Achieve, Inc. American Diploma Project Network & Jobs for the Future Report*. Retrieved from <http://www.achieve.org/files/IdentifyingPotentialDropouts.pdf>
- Kalsbeek, D. H., & Cortes, C. M. (2012). *Improving outcomes through the 4 ps of student retention framework*. Retrieved from https://offices.depaul.edu/enrollment-management-marketing/student-retention/Documents/Kalsbeek_CortesNSSR-2013-4Ps_Final_827.pdf
- Karp, M. M. (2013). *Entering a program: Helping students make academic and career decisions* (CCRC Working Paper No. 59). Retrieved from <http://ccrc.tc.columbia.edu/media/k2/attachments/entering-a-program.pdf>
- Karp, M. M., Hughes, K. L., & O’Gara, L. (2008). *An exploration of Tinto’s integration framework for community college students* (CCRC Working Paper No. 12). Retrieved from <http://ccrc.tc.columbia.edu/media/k2/attachments/exploration-tintos-integration-framework.pdf>
- Katahoire, A. R., Kirumira, E. K., & Caillods, F. (2008). *The impact of hiv and aids on higher education institutions in Uganda*. Uganda: UNESCO International Institute for Educational Planning
- Kessler, R. C. (1997). The effects of stressful life events on depression. *Annual Review of Psychology*, 48(1), 191–214. doi:10.1146/annurev.psych.48.1.191
- Kothari, C. R. (2004). *Research methodology: Methods & techniques* (2nd ed.). New Delhi: New Age International.
- Kuh, G. D. (2003). What we are learning about student engagement from NSSE: Benchmarks for effective educational practices. *Change: The Magazine of Higher Learning*, 35(2), 24–32. doi:10.1080/00091380309604090

- Kuh, G. D., Kinzie, J., Buckley, J. A., & Hayek, J. C. (2006). *What matters to student success: A review of the literature*. Retrieved from http://nces.ed.gov/npec/pdf/kuh_team_report.pdf
- Kumar, R. (2011). *Research Methodology: A step by step guide for beginners*. doi:10.1017/CBO9781107415324.004
- Landry, C. C. (2003). Retention of women and people of color: Unique challenges and institutional responses. *Journal of College Student Retention: Research, Theory and Practice*, 4(1), 1–13. doi:10.2190/5HV3-BWM2-7D0U-7XBT
- Lee, J. S. (2014). The relationship between student engagement and academic performance: Is it a myth or reality? *The Journal of Educational Research*, 107(3), 177–185. doi:10.1080/00220671.2013.807491
- Letseka, M., & Maile, S. (2008). High university drop-out rates : A threat to South Africa's future. *The Human Sciences Research Council (HSRC)*. doi:978 0796922281
- Levitz, R. & Noel, L. (1998). *"The earth-shaking but quiet revolution in retention."* Iowa City, IO: USA Group Noel-Levitz, Inc.
- Lewin, K. M., & Sabates, R. (2012). Who gets what: Is improved access to basic education pro-poor in Sub-Saharan Africa? *International Journal of Educational Development*, 32(4), 517–528. doi:10.1016/j.ijedudev.2012.02.013
- Linver, M. R., Davis-Kean, P. E., & Eccles, J. E. (2002). *Influences of gender on academic achievement*. Presented at the biennial meetings of the Society for Research on Adolescence, New Orleans, LA.
- Lopez-Rabson, T., & McCloy, U. (2013). *Understanding student attrition in the six greater Toronto Area colleges the higher education quality council of Ontario*. Retrieved from <http://www.heqco.ca/SiteCollectionDocuments/Final Formatted Seneca Student Attrition.pdf>

- Lotkowski, V. A, Robbins, S. B., & Noeth, R. J. (2004). The role of academic and non-academic factors in improving college retention. *ACT Policy Report*, 1–31. doi:10.2190/C0C4-EFT9-EG7W-PWP4
- Oyinlade, A. O., & Christo, Z. (2015). Factors of student attrition at an urban university. *International Journal of Humanities and Social Science*, 5(9), 9–22.
- Maclean, R., Wilson, D. P., & Chinien, C. A. (2009). *International handbook of education for the changing world of work: Bridging academic and vocational education*. Retrieved from <http://www.springer.com/gp/book/9781402052804>
- Martha, D., Sousa, V. D., & Mendes, I. A. C. (2007). An overview of research designs relevant to nursing: Mixed and multiple methods. *Revista Latino-Americana de Enfermagem*, 15(5), 1046–1049. doi:10.1590/S0104-11692007000500025
- Massa, R. J. (2012, June 4). Strategic enrolment management: A review [Blog post]. Retrieved from <https://robertmassa1.wordpress.com/2012/05/31/strategic-enrollment-management-a-review/>
- McMillan, J. H., & Schumacher, S. (2001). *Research in education: A conceptual introduction*. New York: Longman.
- McCormick, M. (2011). *A study of factors related to success for non-traditional versus traditional ages students at a public urban community college* (Doctoral thesis, University of Nebraska, Lincoln). Retrieved from <http://digitalcommons.edu/cehsedaddiss>
- Medellin, R. (2015). *Student success part 3: Degree completion explained*. Retrieved from <http://rjmedeillinphd.wordpress.com/2015/07/01/student-sucsess-part-4-degree-completition-explained/>
- Metzner, B. S., & Bean, J. P. (1987). The estimation of a conceptual model of non-traditional undergraduate student attrition. *Research in Higher Education*, 27, 15-38.

- Moodley, P., & Singh, R. J. (2015). Addressing student dropout rates at South African universities. *Alternation Special Edition, 17*(17), 91–115.
- Morales, E. E. (2010). Linking strengths: Identifying and exploring protective factor clusters in academically resilient low-socioeconomic urban students of color. *Roeper Review, 32*(3), 164–175. doi:10.1080/02783193.2010.485302
- Morgan, P. L., Farkas, G., Hillemeier, M. M., & MacZuga, S. (2009). Risk factors for learning-related behavior problems at 24 months of age: Population-based estimates. *Journal of Abnormal Child Psychology, 37*(3), 401–413. doi:10.1007/s10802-008-9279-8
- Morris, J. (2002). *Academic integration, social integration, goal integration and institutional commitment, and spiritual integration as predictors of persistence at Christian institute of higher education* (Doctoral dissertation, Texas Tech University). Retrieved from <https://ttu-ir.tdl.org/ttu-ir/bitstream/handle/2346/16539/31295017082685.pdf?>
- Goings, M. M. A. (2013). *Experiences of community college vocational students who were required to begin their studies by taking remedial courses and successfully attained their associate's degrees: A phenomenological study*. (Doctoral dissertation). Retrieved from http://openurl.ac.uk/redirect/athens:edu/?url_ver=Z39.882004&rft_val_fmt=info:ofi/fmt:kev:mtx:dissertation&genre=dissertations+%26+theses&sid=ProQ:ProQuest+Dissertations+%26+Theses+Global&a
- Mouton, J. (2005). *How to succeed in your master's & doctoral studies: A South African guide and resource book*. Pretoria: Van Schaik.
- Murray, M. (2014). Factors affecting graduation and student dropout rates at the University of KwaZulu-Natal. *South African Journal of Science, 110*(11–12). doi:10.1590/sajs.2014/20140008
- National Student Financial Aid Scheme. (2016). *25 years of funding students*. Retrieved from <http://www.nsfas.org.za/content/>

National Planning Commission. (2011). *National Development Plan (2030)*.

doi.org/ISBN: 978-0-621-41180-5

Neethling, L. (2015). *The determinants of academic outcomes: A competing risk approach*.

Paper presented at the 2015 Conference of the Economic Society of South Africa.

Cape Town: University of Cape Town School of Economics.

Nes, L. S., Evans, D. R., & Segerstrom, S. C. (2009). Optimism and college retention:

Mediation by motivation, performance, and adjustment. *Journal of Applied Social Psychology, 39*(8), 1887–1912. doi:10.1111/j.1559-1816.2009.00508.x

Ogren, C. A., & McCormick, M. (2011). A Study of factors related to success for non-

traditional versus traditional aged students at a public urban community college. *The*

Journal of Higher Education, 74(6), 640–664. doi:10.1353/jhe.2003.0046

O’Keefe, P., Kerr, S., Johnson, V. K., Gans, S. E., Krumrine, J., & Tinto, V. (1993). Leaving

college: Rethinking the causes and cures of student attrition. *College Student Journal, 45*(4), 195–199. doi:10.3102/00346543045001089

Organisation for Economic Co-operation and Development (OECD). (2012). Public and

private schools-how management and funding relate to their socio-economic profile.

OECD. doi:10.1787/9789264175006-en

Organisation for Economic Co-operation and Development (OECD). (2013). Education at a

glance 2013: Highlights. *OECD*. doi:10.1787/eag_highlights-2013-en

Pascarella, E. T. (1980). Student-faculty informal contact and college outcomes. *Review of*

Educational Research, 50(4), 545–595. doi:10.3102/00346543050004545

Pascarella, E. T., & Terenzini, P. T. (1980). Predicting freshman persistence voluntary

dropout decisions from a theoretical model. *The Journal of Higher Education, 51*(1),

60–75. doi:10.2307/1981125

- Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco: Jossey-Bass
- Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research*. *How College Affects Students: A Third Decade of Research* [Adobe Digital Editions version]. doi:10.2307/1982025
- Patton, L. D., Morelon, C., & Whitehead, D. M. (2006). Campus-based retention initiatives: Does the emperor have clothes? *New Directions for Institutional Research*, 130, 9–24. doi:10.1002/ir
- Perna, L. W. (2014). Reflections on Tinto's African lectures. *Journal of Student Affairs in Africa* (2)2, 29–38. doi:10.14426/jsaa.v2i2.67
- Porter, O. F. (1990). Completion and persistence at four-year colleges and universities. *National Institute of Independent College and Universities*. Retrieved from <http://files.eric.ed.gov/fulltext/ED319343.pdf>.
- Quebec, Gouvernement du Quebec. (2013). *Reducing the dropout rate at the end of secondary school*. Retrieved from http://www.education.gouv.qc.ca/fileadmin/site_web/documents/dpse/adaptation_serv_compl/contere_decrochage_an.pdf
- Quintana, S. M., & Mahgoub, L. (2016). Ethnic and racial disparities in education: Psychology's role in understanding and reducing disparities. *Theory into Practice*, 55(2), 94–103. doi:10.1080/00405841.2016.1148985
- Ramist, L. (1981). College student attrition and retention. *College Entrance Examination Board* (1). Retrieved from <http://www.se.edu/dept/native-american-center/files/2012/04/College-Student-Retention-Defining-Student-Retention-A-Profile-of-Successful-Institution.pdf>

- Randall, M. (1999). *Retention and graduation rates at Maryland four-year public institutions* [Research Report No. ED 432 165]. Baltimore: Maryland State Higher Education Commission.
- Ratelle, C. F., Senécal, C., Vallerand, R. J., & Provencher, P. (2005). The relationship between school-leisure conflict and educational and mental health indexes: A motivational analysis. *Journal of Applied Social Psychology, 35*(9), 1800–1823. doi:10.1111/j.1559-1816.2005.tb02196.x
- Robson, C. (2002). *Real world research*. Malden: Blackwell Publishing.
- Rokicka, M. (2014). *The impact of students' part-time work on educational outcomes*. Retrieved from <https://www.iser.essex.ac.uk/research/publications/working-papers/iser/2014-42.pdf>
- Sampson, R. (2009). Bullying in schools. Problem-oriented guides for police problem-specific guides no. 12. *Report of U.S. Department of Justice Publications and Material*. Retrieved from <http://digitalcommunication.unl.edu/usjusticematls/6.html>
- Sandefur, G. D., Meier, A. M., & Campbell, M. E. (2006). Family resources, social capital, and college attendance. *Social Science Research, 35*(2), 525–553. doi:10.1016/j.ssresearch.2004.11.003
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed.). Harlow: Prentice Hall.
- Schreiner, L. A. (2009). Linking student satisfaction and retention. *Noel-Levitz, 1*–16. Retrieved from https://www.ruffalonl.com/documents/shared/Papers_and_Research/2009/LinkingStudentSatis0809.pdf
- Self, S. (2012). Studying absenteeism in principles of macroeconomics: Do attendance policies make a difference? *Journal of Economic Education, 43*(3), 223–234. doi:10.1080/00220485.2012.686382

- Shugart, S. C. (2016). Why higher education: Lessons learned in a learner-centered college. *New Directions for Teaching and Learning*, 2016(145), 85–91. doi:10.1002/tl.20178
- Singh, P. (2015). *Causes and effects of student nurses absenteeism at the KwaZulu Natal college of nursing*. (Master's dissertation). Durban: Faculty of Health Sciences at Durban University of Technology.
- Smyth, J., & Hattam, R. (2004). *Dropping out, drifting off, being excluded: Becoming somebody without school*. New York: Peter Lang Publishing Inc.
- Spaull, N. (2015). Schooling in South Africa: How low quality education becomes a poverty trap. In N. Spaull (Ed.), *South African Child Gauge* (pp. 34–41). Retrieved from <http://nicspaull.com/research/>
- Steinberg, L. (2005). Cognitive and affective development in adolescence. *Trends Cogn Sci*, 9(2), 69–74. doi:10.1016/j.tics.2004.12.005
- Struthers, C. W., Perry, R., & Menec, V. (2000). An examination of the relationship among academic stress, coping, motivation, and performance in college. *Research in Higher Education*, 41(5), 581–592. doi:10.1023/A:1007094931292
- Subotzy, G (n.d.). Enhancing retention and success in South Africa. Johannesburg: *International Higher Education*.
- Sue, G. (2008). *Business research methods*. Brighton: Ventus ApS.
- Suizzo, M.-A. (2007). Parents' goals and values for children. *Journal of Cross-Cultural Psychology*, 38(4), 506–530. doi:10.1177/0022022107302365
- Swail, W. (2004). The art of retention. A handbook for practitioners and administrators. *Texas Higher Education Coordinating Board 20th Annual Recruitment and Retention Conference*, 21(877), 1–39. Retrieved from

<http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:The+Art+of+Retention.+A+handbook+for+practitioners+and+administrators#0>

Teese, R., & Polesel, J. (2003). *Undemocratic schooling: Equity and quality in mass secondary in Australia*. Melbourne: Melbourne University Press.

Thomas, S. L. (2000). Ties that bind. *The Journal of Higher Education*, 71(5), 591–615. doi:10.1080/00221546.2000.11778854

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45(1), 89–125. doi:10.3102/00346543045001089

Tinto, V. (1987). *Rethinking the causes and cures of student attrition*. Chicago, IL: The University Chicago Press

Tinto, V. (1993). *Leaving college: Rethinking the cause and cures of student attrition* (2nd ed.). Chicago, IL: University of Chicago Press.

Tinto, V. (2000). Linking learning and leaving: Exploring the role of the college classroom in student departure. In J. M. Braxton (Ed.), *Reworking the Student Departure Puzzle*, (pp. 81–94). Nashville, TN: Vanderbilt University Press.

Tripney, J. S., & Hombrados, J. G. (2013). Technical and vocational education and training (TVET) for young people in low- and middleincome countries: A systematic review and meta-analysis. *Empirical Research in Vocational Education and Training*. doi:10.1186/1877-6345-5-3

United Nations Educational Scientific and Cultural Organization (UNESCO). (2015). *Education for all 2000-2015: Achievements and challenges, EFA global monitoring report*. Retrieved from <http://unesdoc.unesco.org/images/0023/002322/232205e.pdf>

USA Funds (2003). *Building collaborative strategies symposium: Best practices in student retention*. Retrieved from USAFUNDS website: http://www.usafunds.org/forms/DPDM125_Synopsis.pdf

- Veenstra, C. P. (2009). A strategy for improving freshman college retention. *Journal for Quality & Participation*, 31, 19–23. doi:10.2190/C0C4-EFT9-EG7W-PWP4
- Vianden, J. (2009). Exploring college men's perceptions about interacting with faculty beyond the classroom. *College Student Affairs Journal*, 27(2), 224–241.
- Voss, R., & Gruber, T. (2006). The desired teaching qualities of lecturers in higher education: a means end analysis. *Quality Assurance in Education*, 14(3), 217–242. doi:10.1108/09684880610678540
- Warren, J. R., & Lee, J. C. (2003). The impact of adolescent employment on high school dropout: Differences by individual and labor-market characteristics. *Social Science Research*. doi:10.1016/S0049-089X(02)00021-2
- Weinberg, S. L., & Abramowitz, S. K. (2008). *Statistics using SPSS: An integrative approach* (2nd ed.). Cambridge: Cambridge University Press
- White, J. W. (2005). Sociolinguistic challenges to minority collegiate success: Entering the discourse community of the college rationale and conceptual framework. *Journal of College Student retention, Theory & Practice*. 6(4), 369–393. doi:10.2190/8AY3-498G-HRN5-NHDJ
- Wild, L., & Ebbers, L. (2002). Rethinking student retention in community colleges. *Community College Journal of Research and Practice*, 26(6), 503–519. <https://doi.org/10.1080/2776770290041864>
- Xia, N. (2009). Family factors and student outcomes. *ProQuest Dissertations and Theses*. Retrieved from <https://search.proquest.com/docview/305167815?accountid=10673%0A>
- Yusoff, M. S. B. (2014). Association of academic performance and absenteeism among medical students. *Education in Medicine Journal*, 6(1), 40–44. <https://doi.org/10.5959/eimj.v6i1.248>

Zajacova, A., Lynch, S. M., & Espenshade, T. J. (2005). Self-efficacy, stress, and academic success in college. *Research in Higher Education*. doi:10.1007/s11162-004-4139-z

Zoellner, G. E. (2004). Community college persistence, social networks, and new student orientation programs. *ProQuest Dissertations and Theses*. Retrieved from https://search.proquest.com/docview/305078114?accountid=10673%0Ahttp://openurl.ac.uk/redirect/athens:edu/?url_ver=Z39.882004&rft_val_fmt=info:ofi/fmt:kev:mtx:dissertation&genre=dissertations+%26+theses&sid=ProQ:ProQuest+Dissertations+%26+Theses+Global&atit

APPENDIX A: Information Sheet and Consent to Participate in Research



Information Sheet and Consent to Participate in Research

Date: 15 September 2016

Greetings,

My name is Bongani Gwala, a Masters student at the School of Management, Information Technology and Governance at the University of KwaZulu Natal (UKZN). My contact number is 073 335 6458 and my E-mail address is: bonganigwala@yahoo.com.

You are being invited to consider participating in a study that involves research about *Factors influencing student attrition at Umgungundlovu TVET College*. The purpose of this research is to determine influences' leading to student attrition at Umgungundlovu TVET College. The study is expected to gain insight from the students' perspectives. Therefore a sample of 370 students from Msunduzi and Midlands campuses at Umgungundlovu TVET College may help to answer the research problem of the study. Permission is requested to allow selected 370 students to answer questions in a questionnaire (attached) and it should take 10 minutes of their time.

Though the study require student participation, I hope that identifying factors leading to attrition can aid students and administrators at Umgungundlovu TVET College to deal with student attrition by instituting appropriate enrolment management strategies.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee.

In the event of any problems or concerns/questions you may contact the researcher at contact number and e-mail stated above or my supervisor, Dr. S Atiku at Atiku@ukzn.ac.za or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

Mrs Mariette Snyman

Humanities and Social Science Ethics (HSSREC) Research Office,
Govan Mbeki Building, Westville Campus, Private Bag X54001, DURBAN 4000

Tel: 031 260 8350 Snymanm@ukzn.ac.za

Researcher: Bongani Gwala (073 335 6458)

Supervisor: Dr. S Atiku (084 436 0270)

Your participation in the study is voluntary and by participating, you are granting the researcher permission to use your responses. You may refuse to participate or withdraw from the study at any time with no negative consequence. There will be no monetary gain from participating in the study. Your anonymity will be maintained by the researcher and the School of Management, I.T. & Governance and your responses will not be used for any purposes outside of this study.

All data, both electronic and hard copy will be securely stored during the study and archived for 5 years. After this time, all data will be destroyed.

If you have any questions or concerns about participating in the study, please contact me or my research supervisor at the numbers listed above.

Sincerely

Bongani Gwala

APPENDIX B: Consent to Participate

CONSENT TO PARTICIPATE

I..... (Name) have been informed about the study entitled Factors influencing student attrition at Umgungundlovu TVET College by Bongani Gwala.

I understand the purpose and procedures of the study which is to determine influences resulting in student dropout at Umgungundlovu TVET College.

I have been given an opportunity to ask questions about the study and have had answers to my satisfaction.

I declare that my participation and the student's participation in this study are entirely voluntary and that we may withdraw at any time without affecting any of the benefits that I usually am entitled to.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at bonganigwala@yahoo.com or phone him at 073 335 6458.

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

Mrs Mariette Snyman
Humanities and Social Science Ethics (HSSREC) Research Office,
Govan Mbeki Building, Westville Campus, Private Bag X54001, DURBAN 4000
Tel: 031 260 8350 Snymanm@ukzn.ac.za
Researcher: Bongani Gwala (073 335 6458)
Supervisor: Dr. S Atiku (084 436 0270)

Signature of Participant

Date

APPENDIX C: Parent/Guardian Informed Consent

Dear Sir/Madam

Parent/Guardian Informed Consent

Project Title: Factors influencing student attrition at Umgungundlovu TVET College

Your child is being asked to participate in a research study conducted by Bongani Gwala, a Masters student at the School of Management, Information Technology and Governance from University of KwaZulu Natal. The purpose of this study is to identify all influences leading to student attrition at Umgungundlovu TVET College. This study will contribute to the researcher's completion of his master's dissertation. Umgungundlovu TVET College has granted the researcher permission to conduct research; therefore an additional consent is required from you as a parent/ward of the child,

Should you decide to allow your child to participate in this research study, you will be asked to sign this consent form once all your questions have been answered to your satisfaction. This study consists of a questionnaire that will be administered to individual participants in the college classroom. Your child will be asked to provide answers to a series of questions related to student attrition. The questionnaire is available for your perusal. Participation in this study will require 10 minutes of your child's time. There is no risk associated with your child's involvement in this study

Your child's participation in the study is voluntary and by participating, you are granting the researcher permission to use your child responses. Anonymity of your child's response will be maintained and in confidentiality by the researcher and the school of Management, IT & Governance and the responses will not be used for any purpose outside the study. Should you and your child choose to participate, he/she can withdraw at any time without consequences of any kind. Your child's participation is entirely voluntary. He/she is free to choose not to participate.

If you have any questions or concerns about participation in this study, please contact me at 073 3356 458 or my research supervisor Dr S Atiku at atiku@ukzn.ac.za

The results of this research will be presented to Umgungundlovu TVET College in a form of a copy of dissertation. When the results of this research are published or discussed in conferences, no information will be included that would reveal your child's identity. All data will be stored in a secure location accessible only to the researcher(s). Upon completion of the study, all information that matches up individual respondents with their answers will be destroyed.

It is our ethical responsibility to report situations of child abuse, child neglect, or any life-threatening situation to appropriate authorities. However, I am not seeking this type of

information in this study. For more information please contact the UKZN Humanities & Social Sciences Ethics Committee, contact details:

Humanities & Social Sciences Ethics Committee Research Office, Govan Mbeki Building, Westville Campus, Private Bag X54001, DURBAN 4000. Tel: 031 260 8350.

Sincerely

Bongani Gwala

Giving of Consent

I have read this consent form and I understand what is being requested of my child as a participant in this study. I freely consent for my child to participate. I have been given satisfactory answers to my questions. The investigator provided me with a copy of this form. I certify that I am at least 18 years of age.

I give consent for my child to partake in the study.

Name of Child (Printed)

Name of Parent/Guardian (Printed)

Name of Parent/Guardian (Signed) _____
Date

Name of Researcher (Signed) _____
Date

APPENDIX D: Questionnaire

QUESTIONNAIRE

SECTION A: STUDENT DEMOGRAPHIC FACTORS

1. Gender

Male	Female

2. Marital status

Single	Married	Divorced/Separated	Widowed

3. Age group

16 – 20 years	21 – 30 years	31 – 40 years	41 – 50 years	51 – 61years	61 years & above

4. Race group

African	Indian	Coloured	White	Other

5. Home language

6. Enrolled Qualification

NC (V) Levels 2-4	Report 191 (N1-N3)	Report 191 (N4-N6)	Occupational Qualifications/Lerner ship	Other

7. Field of study

Business Studies	Engineering Studies	Utilities Studies

8. Parents/Guardians level of education

Primary Education <i>(Less than Grade 7)</i>	Secondary Education <i>(Above Grade 7 but less than Grade 12)</i>	Tertiary Education <i>(Completed Higher Certificate/Diploma/Degree)</i>

9. Your household monthly income

R 0 – R5000	R5001 – R10000	R10001 – R20000	R20001 and above

SECTION B:

FACTORS INFLUENCING STUDENT ATTRITION RATE

1. ACADEMIC INTEGRATION FACTORS

Please indicate with a tick (✓) the appropriate item you believe influence student attrition/dropout at your college.

S/N	ITEMS	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
1.1	I understand the thinking of my lectures/facilitators when they lecture or ask questions					
1.2	I am happy with the intellectual growth since I enrolled at Umgungundlovu TVET College					
1.3	I am happy with the quality of education I receive at Umgungundlovu TVET College					
1.4	I am interested in the things that I being said during class discussion					
1.5	I can see the link between what I learn in class at Umgungundlovu TVET College and my future career possibilities					
1.6	I believe my lectures/facilitators impose unreasonable requirements on students and enjoy seeing students distress.					
1.7	I am happy with my academic performance/grades so far.					
1.8	I am committed to my studies					

1.9	I stay absent from college because lectures are boring					
1.10	I require study skills to cope with college work					
1.11	My course is more theoretical than practical					

2. SOCIAL INTEGRATION FACTORS

Please indicate with a tick (✓) the appropriate item you believe influence student attrition/dropout at your college.

S/N	ITEMS	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
2.1	I am happy with the interpersonal relationship with other students at Umgungundlovu TVET College					
2.2	The interpersonal relationships I have with other students have an impact on my intellectual growth.					
2.3	I am emotionally connected with other students on this campus					
2.4	I feel socially connected with staff on this campus					
2.5	I participate in the college extracurricular activities					
2.6	I partake in college organisation/societies					
2.7	People are friendly in this campus					
2.8	I wear clothing with Umgungundlovu TVET College emblem					

3. ORGANISATION FACTORS

Please indicate with a tick (✓) the appropriate item you believe influence student attrition/dropout at your college.

S/N	ITEMS	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
3.1	I am aware of college academic rules and regulations					
3.2	The college informs students about qualification requirements before registration					
3.3	The college communicate information to students about campus news					
3.4	The college communicate information to students about tuition costs					
3.5	The college communicate information to students about campus events					
3.6	The college assist students with financial aid					
3.7	The college provide relevant academic services to students					
3.8	The college attend to students needs					
3.9	The college management involve students in decision making related to college operations					
3.10	The college management consult students on matters related to students					

4. Environmental Pull Factors

Please indicate with a tick (✓) the appropriate item you believe influence student attrition/dropout at your college.

S/N	ITEMS	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
4.1	I often miss my classes because of medical reasons					
4.2	I often miss my classes because of employment					
4.3	My family approve of Umgungundlovu TVET College					
4.4	My family will be disappointed if I can dropout of this college					
4.5	I believe there are other colleges much better/ superior to Umgungundlovu TVET College.					

5. Student attrition

Please indicate with a tick (✓) the appropriate item you believe influence student attrition/dropout at your college.

S/N	ITEMS	Strong Disagree	Disagree	Neutral	Agree	Strongly Agree
5.1	I am likely to drop out because of lack of student-lecture interaction at Umgungundlovu TVET College					
5.2	I am more likely to drop out of college because of inadequate social support on Campus					
5.3	I am more likely to drop out of college because of poor college administration					
5.4	I am more likely to drop out if I can find a fulltime job.					

5.5	My family will be disappointed if I dropped out of college					
5.6	My family are supportive in my pursuit of college certificate					
5.7	I am persistent in my pursuit of the college qualification					
5.8	I am committed to completing my studies at TVET college					
5.9	I am confident that this is the right college for me					
5.10	At this moment in time, I am more likely to earn a college diploma					

Additional Remarks (Student attrition)

Please use the space provided to state other possible reasons if there are any that may results in you not finishing yours studies/ dropout at Umgungundlovu TVET College.

.....

.....

.....

APPENDIX E: Permission to participate



**higher education
& training**
Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA



23 September 2016

Mr Bongani Gwala

CONSENT TO PARTICIPATE IN RESEARCH AT UMGUNGUNDLOVU TVET COLLEGE

This letter serves to verify that permission has been granted to

Mr Bongani Gwala

to conduct research entitled *Factors influencing student attrition at Umgungundlovu TVET College* as part of his Masters Degree research project.

After review of the study protocol, I Mr DD Msomi, Deputy Principal: Academic Services at Umgungundlovu TVET College, understand that the study involves him recruiting a total number of 370 students to participate in the survey.

We are happy to participate in this study and contribute to this important research.

Yours faithfully

DD Msomi
Deputy Principal: Academic Services



Central office • 44 Burger street, Private Bag X9060, Pietermaritzburg 3200 • Tel: 033 3412109 • Fax: 0333459827
Campuses • Edendale • Garden street, Edendale • Midlands • Cnr Pine street and Mayors Walk, Pietermaritzburg
• Msunduzi • 114 Pietermaritz Street, Pietermaritzburg • Northdale • Cnr Bahambra and Newholms Way, Northdale
• Plessislaer • FJ Sithole Road, Imbali

APPENDIX F: Ethical Approval



01 November 2016

Mr Bongani Gwala (211555146)
School of Management, IT & Governance
Westville Campus

Dear Mr Gwala,

Protocol reference number: HSS/1733/016M

Project title: Factors influencing student attrition at Umgungundlovu TVET College

Full Approval – Expedited Application

In response to your application received on 18 October 2016, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

.....
Dr Shenuka Singh (Chair)

/ms

Cc Supervisor: Dr S Atiku
Cc Academic Leader Research: Professor Brian McArthur
Cc School Administrator: Ms Angela Pearce

Humanities & Social Sciences Research Ethics Committee

Dr Shenuka Singh (Chair)

Westville Campus, Govan Mbeki Building

Postal Address: Private Bag X54001, Durban 4000

Telephone: +27 (0) 31 260 3587/8350/4557 Facsimile: +27 (0) 31 260 4609 Email: ximbap@ukzn.ac.za / snymanm@ukzn.ac.za / mohunp@ukzn.ac.za

Website: www.ukzn.ac.za



100 YEARS OF ACADEMIC EXCELLENCE

Founding Campuses  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville