

**THE MANAGEMENT OF STUDENT RETENTION AND SUCCESS AT TECHNICAL
AND VOCATIONAL EDUCATION AND TRAINING COLLEGES IN LIMPOPO
PROVINCE**

By

MASENYANI LEVY BALOYI

Submitted in accordance with the requirements for the degree of

DOCTOR OF EDUCATION

In the subject

EDUCATION MANAGEMENT

At the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: PROFESSOR H.M. VAN DER MERWE

NOVEMBER 2019

ACKNOWLEDGEMENTS

My first and profound thanks, as always, go to God the almighty for affording me the opportunity, for giving me the strength to remain focused as I persisted, for giving me the ability to complete this study and for guiding me while undertaking this challenging and life-changing educational journey.

Next up, among those to whom I am grateful is my major supervisor, Professor HM van der Merwe, for her patience and the encouragement throughout my doctoral experiences. Her continuous words of encouragement kept me on track to complete this research project.

My family has been the source of inspiration throughout my educational journey, including my mother Khubani and my late father Million Baloyi who taught me how to persevere when it is very dark because the light will soon shine brighter.

A special heartfelt thank you to my spouse, Mrs Masasekani Baloyi, and my special sister, Mrs Monyisa Nukeri, for never giving up on my finishing this degree and who gave me encouragement and confidence every step of the way. Thank you. Your continuous love, patience and support touch my heart.

To my amazing brothers, Josiah, Zet, and the late two brothers Bernard and Happy Baloyi, and sons Nkateko and Kulani for being always there, ready to “cheer” me up, even though you were overloaded with your own responsibilities. My special thanks to my nephews Rhulani, Vongani and Fumani Nukeri, and my cousin’s brother, Dr Albert Baloyi, for inspiring me to enrol for this PhD programme and providing inputs throughout this study. Your contributions are profoundly acknowledged.

Thank you to Mr Avelino Sousa-Poza and the late Mr WW Xipetana Nkuna for preliminary proofreading and editing of my initial work and answering my never-ending questions during this pursuit.

A resounding thanks to my true friends Malesela Lestoalo, Ash Singh, Samson Mbhombi, Moore Monyela and Patrick Mawila for your unwavering support and reminding me to never look back or sideways, but to march on forward irrespective of any barriers along the path.

To Dr Dion van Zyl at the Statistics Department of the University of South Africa, I say thank you very much for your expertise and, above all, for your preparedness to work longer hours analysing my questionnaire data. All people who participated and supported me in this endeavour, I wish to acknowledge and thank them. The faculties and staff at the University of South Africa, and the Technical and Vocational Education and Training Colleges in Limpopo Province deserve much of my gratitude for granting me permission to collect valuable data from various TVET institutions.

DECLARATION

“I, Masenyani Levy, declare that **The Management of student retention and success in Technical and Vocational Education and Training Colleges in Limpopo Province** is my own work and that all the sources I have used or quoted have been indicated or acknowledged by means of complete references.

I further declare that I submitted the dissertation to originality checking software and that it falls within the accepted parameters for originality.



SIGNATURE

November 2019

DATE

DEDICATION

This entire document is dedicated to my mother Khubani, and my siblings Josiah, Monyisa, and Zet for their unfathomable support at all times. I am truly blessed to share my life with you.

To my sons, Nkateko “Khalanga” and Kulani “Mfo” who are nothing less than sensational, may you always remain the model of my joy and contentment!

To my amazing wife, Masasekani for you are a God given gold mine of my courage, wisdom and common sense. You are my only best friend. I devote this work and my life to you.

God bless you all!!

ABBREVIATIONS

GPA	Grade Point Average
ACT	American College and Testing
ANC	African National Congress
ASAT	Assessments, Scholastic Aptitude Test
DBE	Department of Basic Education
DHET	Department of Higher Education and Training
DoE	Department of Education
FEC	Further Education College
FEI	Further Education Institution
FET	Further Education and Training
GCSEs	General certificates of secondary education
GET	General Education and Training
HEI	Higher Education Institution
HEFC	Higher Education Funding Council
ILO	International Labour Office
NAO	National Audit Office
NATED	National Technical Education
NDP	National Development Plan
NC (V)	National Curriculum (Vocational)
NCES	National Center for Education Statistics
NCHE	National Council of Higher Education
NEET	Not in employment, not in education and not in training (NEET)
NPC	National Planning Commission
NQF	National Qualifications Framework
NSF	National Skills Fund
NSFAS	National Student Financial Aid Scheme
OECD	Organization for Economic Co-operation and Development
PEDs	Provincial Education Departments
PSET	Post-School Education and Training
SAQA	South African Qualifications Authority
SAT	Scholastic Aptitude Test
SDT	Self-Determination Theory
SES	Socio-Economic Status
SETAs	Environment education and training authorities

TVET	Technical and Vocational Education and Training
TVETMIS	Technical and Vocational Education and Training Management Information System
UNESCO	United Nations Educational, Scientific and Cultural Organization

ABSTRACT

With reference to the demands for innovation facing the systems of tertiary education internationally, the Department of Higher Education in South Africa has been revamped since the realization of the democratic Government. In recent years, the Technical and Vocational Education and Training (TVET) College institutions became the potential learning institutions of choice that could revitalize the economy. This resulted in merging the former 152 TVET Colleges into 50 with the intention to streamline access in order to accommodate a larger number of students for technical and vocational training. The purpose of this study was to determine how student retention and success in the TVET Colleges can be effectively managed. The study was mainly guided by the theoretical framework of Bronfenbrenner's (1979, 1995) ecological systems theory that explains individuals' relationships with their environments by means of interrelated ecological systems functioning. Secondly, applied to this study was the principles of systems theory which supplemented Bronfenbrenner's ecological systems theory.

A mixed-methods research approach was used in determining the perceptions of TVET College personnel from different levels of institutional functioning and from students from different years of registration to determine the main factors influencing student retention and success at TVET Colleges. The empirical investigation comprised of a quantitative research approach (as phase 1) using questionnaires administered to students which was followed by a qualitative research approach (as phase 2) entailing semi-structured individual interviews with TVET College employees. The researcher used the chi-square and analysis of variables tests as analysis techniques in analysing and presenting the results in in this study.

The research findings indicated a strong need for relevant career guidance provided to prospective TVET College students from primary school onwards, and the establishment of a constructive student support unit at TVET Colleges to promote student retention and success. Factors that promote the management student retention and success were identified as relating to the image and reputation of TVET Colleges, sources of effective communication, and student support activities that initially and continuously motivate or hinder student retention and success in the TVET College institutions.

KEYS WORDS

Management, student retention and success, student access, student motivation, student persistence, attrition and dropout, student support services, Department of Higher Education and Training, Technical and Vocational Education and Training Colleges, widening student participation, institutional image and reputation sources.

OPSOMMING

Na aanleiding van die oproepe om vernuwing wat tersiêre-onderwysstelsels op internasionale vlak in die gesig staar, het die Departement van Hoër Onderwys en Opleiding in Suid-Afrika sedert die instelling van 'n demokratiese regering verskeie verbeteringe ondergaan. In die afgelope aantal jare het instellings in die tegniese en beroepsonderwys- en opleidingssektor potensieële voorkeurleerinstellings geword wat die vermoë het om die ekonomie nuwe lewe te gee. Dit het gelei tot die samesmelting van die voormalige 152 kolleges in die sektor tot 50 kolleges, met die doel om toegang te vergemaklik sodat meer studente vir tegniese en beroepsopleiding ingeneem kan word. Die doel van hierdie studie was om te bepaal hoe faktore wat studentbehoud en -sukses beïnvloed, doeltreffend in die tegniese en beroepsonderwys- en opleidingskollegesektor bestuur kan word. Die studie is gerig deur die teoretiese raamwerk van Bronfenbrenner (1979, 1995) se ekologiese-stelselteorie. Hierdie teorie verklaar individue se verhoudings met hul omgewings met behulp van ekologiese stelsels wat in verhouding met mekaar funksioneer.

Tweedens, aan die studie was beginsels van stelsels teorie toegevoeg wat Bronfenbrenner se ekologiese stelsels teorie aanvul. Die empiriese ondersoek het bestaan uit 'n kwantitatiewe navorsingsbenadering waarby vraelyste aan studente uitgedeel is, gevolg deur 'n kwalitatiewe navorsingsbenadering wat semi-gestruktureerde individuele onderhoude met werknemers by tegniese en beroepsonderwys- en opleidingskolleges behels het. Die navorsingsbevindinge het gedui op 'n sterk behoefte aan die voorsiening van toepaslike beroepsvoorligting aan leerders op laerskool en verder wat voornemens is om aan tegniese en beroepsonderwys- en opleidingskolleges te studeer, asook die vestiging van 'n konstruktiewe studentesteuneenheid by hierdie kolleges om studentebhoud en -sukses te bevorder. Faktore wat studentebhoud en -sukses bevorder is geïdentifiseer as dié wat verband hou met die beeld en reputasie van tegniese en beroepsonderwys- en opleidingskolleges, bronne van doeltreffende kommunikasie, en studentesteunaktiwiteite wat aanvanklik en deurlopend as motivering vir studentebhoud en -sukses in hierdie sektor dien of dit belemmer.

SLEUTELWOORDE

bestuur (*management*), studentebhoud en -sukses (*student retention and success*), studentetoeegang (*student access*), studentemotivering (*student motivation*), studenteblywendheid (*student persistence*), afname in studentegetalle en druipling (*attrition and dropout*), studentesteundienste (*student support services*), Departement van Hoër Onderwys en Opleiding (*Department of Higher Education and Training*), tegniese en beroepsonderwys- en opleidingskolleges (*Technical and*

Vocational Education and Training Colleges), breër wordende studentedeelname (*widening student participation*), instellings se bronne van beeld en reputasie (*institutional image and reputation sources*).

NKOMISO

Mayelana na xilaveko xa vutumbuluxi lebyi mafambiselo ya swikolo le ya langutiseneke na wona misava hinkwayo, Ndzavisiso ya tidyondzo ta le henhla ya Afrika Dzongayi cincile ku sukela loko hi ri eka mfumo wa xidimokirasi, Eka masiku ya namuntlha, tikholichi ta Vuthikiniki na dyondzo na vuleteri (TVET) ti hundzukile swikolo leswi nga langiwaku ku pfxelela ikhonomi. Leswi swi endlile leswaku ku katsiwa tikholichi to ringana 152 leswaku ti va 50 ku ri ku endlela leswaku ku tekiwa na ku leteriwa vana va ku tala. Xikongomelo a ku ri ku endlela leswaku machudeni va nga lawuriwa na ku humelerisiwa njhani eka ti kholichi ta ti TVET. Dyondzo leyi yi rhangeriwa hi mavonelo ya malavisiselo ya Bronfenbrenner's (1979, 1995), mavonelo ya matshamelo na mahlamuselo ya vuxaka eka mpfanganyiso wa matirhiselo, xavumbirhi, Dyondzo leyi yi tirhisile milawu ya mafambiselo na mavonelo lama tatisaku maendleo ya matshamelo na mafambiselo ya Bronfenbrenner.

Malaviseselo ya maendlelo yo pfanganana ya tirhisiwile eka mavonelo ya va tirhi ya tikholichi ta ti TVET ku suka eka matshamelo na matirhelo yaku hambana hambana ku sukela eka malembe ya ntsariso ku endlela ku kuma nsusumeto wa ku humelela ka machudeni etikholichi. Ndzavisiso lowu wu katsakanya maendlelo ya khwalithethivhi, eka xiyenge xo sungula hi ku tirhisa swivutiso leswi nga ta xiyisisiwa eka machudeni swi tlhela swilandelerisiwa hi maendlelo ya malavisiselo ya khwalithethivhi (eka xiyenge xa vumbirhi) hi ku kandzelerisiwa hi nwangulano wa xiphemu na vatirhi va ti kholichi ta ti TVET. Mulavisisi u tirhisile xikwere xa chi na ku xopaxopa swiphemu swa swikambelo leswi a swi xopa xopiwa loko ku bumabumeriwe / hlayiwe mbuyelo wa ndzavisiso.

Mbuyelo wu kombisa swinene leswaku kuna ku yelana eka ndzetelo lowu nyikiwaku machudeni ya ti kholichi ta TVET ku suka eswikolweni swa le hansi ku ya ehenhla, na ku tumbuluxiwa ka xiyenge xa mpfuno wa machudeni etikholichini ta ti TVET ku tlakusa ku tiyisa na ku humelela ka machudeni. Swi nwana leswi susumetaku ku tlakusa na ku tiyisa vufambisi eku tlakuseni na ku humelerisa machudeni ya ti kholichi ta ti TVET swikombisa swi fananisiwa na xiyimo na xindzhuti xa swikolo leswi, swipfuno swa mavulavulelo, na swipfuno swa switirhisiwa swa mpfuno wa machudeni wa masungulo kumbe wa ku yisa nkucetelo kumbe xirhalanganyi xa ku tlakusa na ku pfuna ku humelela eka tikholichi ta ti TVET.

MARITO NKULO / XIKHIYA XA MARITO

Vufambisi, ntlakuso na ku humelela ka muchudeni, humelelo wa muchudeni, nhlohletelo wa muchudeni, mphikelelo wa muchudeni, kunyamalala na ku tsandzeka, mpfuno wa mintirho ya machudeni, Ndzawulo ya tidyondzo ta le henhla na vuleteri, Tikholichi ta vuthikiniki vuleteri na vuswikoti (TVET), Ndlalelo wa ku nghenelela ka machudeni, xindzhuti xa xikolo na ndhuma ya swipfuno.

TABLE OF CONTENTS	Page
Acknowledgements	ii
Declaration	iv
Dedication	v
Abbreviations	vi
Abstract	vi
Key words	vii

CHAPTER 1

ORIENTATION TO STUDY

1.1	INTRODUCTION	1
1.2	BACKGROUND TO STUDY	3
1.2.1	Theoretical Framework	4
1.2.2	The nature of the Technical and Vocational Education and Training College education	5
1.2.3	Challenges with viable Technical and Vocational Education and Training provisioning	6
1.2.4	Lecturing staff and students in a Technical and Vocational Education and Training institutions	7
1.3	MOTIVATION FOR STUDY	8
1.4	PROBLEM STATEMENT	10
1.5	RESEARCH QUESTIONS	11
1.5.1	Main research question	12
1.5.2	Secondary research questions	12
1.6	RESEARCH OBJECTIVES	13
1.7	RESEARCH HYPOTHESES	15
1.8	RESEARCH METHODOLOGY	16
1.8.1	Research paradigm and approach	17
1.8.2	Selection of sites and participants	18
1.8.3	Data collection	20
1.8.3.1	Qualitative research approach	21
1.8.3.2	Quantitative research approach	22
1.8.4	Data analysis	25
1.8.5	Ethical considerations	26

1.9	CLARIFICATION OF CENTRAL CONCEPTS	27
1.9.1	Concepts inherent in the topic	27
1.9.1.1	Management	27
1.9.1.2	Student retention	28
1.9.1.3	Achievement	28
1.9.1.4	Further Education and Training Colleges	29
1.9.2	Concepts related to the title	29
1.9.2.1	Widening student participation	29
1.9.2.2	Student access	30
1.9.2.3	Student motivation	30
1.9.2.4	Student persistence	31
1.9.2.5	Attrition and dropout	31
1.9.2.6	The department of education	32
1.9.2.7	The department of higher education and training	32
1.10	ORGANISATION OF THE THESIS	32
1.11	SUMMARY	32

CHAPTER 2

WIDENING STUDENT-PARTICIPATION AND INCREASING STUDENT ACCESS IN POST-SCHOOL EDUCATION INSTITUTIONS

2.1	INTRODUCTION	35
2.2	THE APPLICATION OF BRONFENBRENNER'S ECOLOGICAL SYSTEMS THEORY AS THEORETICAL FRAMEWORK	36
2.2.1	Background and social psychological traits	37
2.2.2	Family and educational activity deviation	37
2.2.3	Institutional policies and practices	38
2.2.4	Responsiveness to the cultural environment	39
2.2.5	Time-based developmental changes	39
2.3	THE PRINCIPLES UNDERPINNING WIDENING PARTICIPATION AND INCREASING ACCESS IN POST-SCHOOL EDUCATION	40
2.3.1	Perspectives on widening student participation	41
2.3.2	Perspectives on increasing student access	43

2.4	THE RATIONALE BEHIND WIDENING STUDENT PARTICIPATION AND INCREASING STUDENT ACCESS IN MERGED TVET COLLEGES	44
2.5	DETERMINANTS OF POST-SCHOOL INSTITUTIONAL CHOICE	46
2.5.1	Post-school institutional location	47
2.5.2	Academic qualifications and programme match	48
2.5.3	Reputation of Technical and Vocational Education and Training Colleges	49
2.5.4	Educational facilities	50
2.5.5	Cost and Time	51
2.5.6	Availability of financial aid	52
2.5.7	Career choice and employment opportunities	54
2.6	STUDENT RECRUITMENT	56
2.6.1	Pre-College preparatory programs	57
2.6.2	Promoting a College-attendance culture	59
2.6.3	On-site campus orientation	60
2.6.4	Student course credit orientation	61
2.7	SELECTION AND ADMISSION PRACTICES OF STUDENTS	63
2.7.1	Selection practices	64
2.7.1.1	Admission requirements	65
2.7.1.2	Prior educational attainment	67
2.7.1.3	The readiness of students for post-school education and training	68
2.8	THE HISTORY OF STUDENT SUCCESS RATES IN THE TVET COLLEGE INSTITUTIONS	70
2.9	FACTORS THAT PLAY A ROLE IN STUDENT ENROLMENT DECISIONS	72
2.9.1	External influences	74
2.9.2	Internal influences	76
2.9.3	Decision-making process in perspective	79
2.9.3.1	Problem or need recognition	80
2.9.3.2	Information search	80
2.9.3.3	Evaluation process	80
2.9.3.4	Outlet selection and purchase	81
2.9.3.5	Post-purchase process	82
2.10	SUMMARY	84

CHAPTER 3
STUDENT RETENTION AND ACHIEVEMENT IN POST-SCHOOL
INSTITUTIONS

3.1	INTRODUCTION	86
3.2	STUDENT RETENTION AND ACHIEVEMENT IN CONTEXT	87
3.3	PREDICTORS OF STUDENT RETENTION AND ACHIEVEMENT	90
3.3.1	Academic factors	92
3.3.1.1	Student orientation and induction	92
3.3.1.2	Student’s cognitive factors	94
3.3.1.3	Student engagement and involvement	95
3.3.1.4	Learning expectations and experiences	99
3.3.1.5	Curriculum delivery	101
3.3.1.6	Student-centred active learning	103
3.3.1.7	Formative assessment	105
3.3.1.8	Pedagogical challenges	105
3.4	NON-ACADEMIC FACTORS	106
3.4.1	Social-background	107
3.4.2	language factor	109
3.4.3	challenges experienced by first-generation students	110
3.4.4	study and living space	112
3.4.5	family structure	114
3.4.6	Institutional cultural and practical issues	115
3.4.7	Student support services	116
3.4.8	Financing College education studies	118
3.5	FACULTY ACCESSIBILITY FACTORS	120
3.5.1	Academic advising	120
3.5.2	Social integration	121
3.6	DEMOGRAPHIC FACTORS	123
3.7	STUDENT SENSE OF BELONGING	123
3.8	STUDENT MOTIVATION	125
3.9	SUMMARY	127

CHAPTER 4
RESEARCH METHODOLOGY

4.1	INTRODUCTION	130
4.2	RESEARCH METHODOLOGY AND DESIGN	130
4.2.1	Research	130
4.2.2	Research methodology	131
4.2.3	Research design	131
4.3	RESEARCH PROCESS	133
4.4	RESEARCH PARADIGMS	135
4.4.1	Hierarchical order of paradigms	136
4.4.2	Ecological systems theory	139
4.5	MIXED METHODS RESEARCH APPROACH	142
4.5.1	Qualitative research approach	144
4.5.2	Quantitative research approach	145
4.5.3	Predispositions of Qualitative and Quantitative modes of inquiry	147
4.6	SAMPLING PROCEDURES	148
4.6.1	Sample population	149
4.6.2	Sample frame	149
4.6.3	Sampling method	150
4.6.3.1	Qualitative data sampling	152
4.6.3.2	Quantitative data sampling	152
4.6.4	Sample size	153
4.6.5	Pilot study	154
4.7	DATA COLLECTION METHODS	154
4.7.1	Literature review	155
4.7.2	Semi-structured interviews	156
4.7.3	Questionnaires	156
4.7.3.1	Construction and structure of the questionnaires	157
4.7.3.2	Distribution and collection of the questionnaires	157
4.7.4	Collection of secondary data	158
4.8	DATA ANALYSIS	159
4.8.1	Qualitative data	160
4.8.2	Quantitative data	161
4.8.	Triangulation	161

4.9	VALIDITY AND RELIABILITY	162
4.9.1	Validity	163
4.9.2	Reliability	164
4.10	ETHICAL CONSIDERATIONS	164
4.10.1	Permission	165
4.10.2	Confidentiality	165
4.10.3	Voluntary participation	166
4.11	SUMMARY	166

CHAPTER 5
RESEARCH FINDINGS ON DATA QUANTITATIVELY
COLLECTED

5.1	INTRODUCTION	167
5.2	DISTRIBUTION OF QUESTIONNAIRE AND ANALYSIS OF FREQUENCIES PER SECTION	167
5.2.1	Socio-demographic profile of respondents	169
5.2.2	Institutional reputation and image of TVET Colleges	179
5.2.3	Factors improving student retention and success at TVET Colleges	185
5.2.4	Factors relating to initial student support services influencing student retention and success at a TVET Colleges	192
5.2.5	Factors relating to continuous student support services motivating or inhibiting student retention and success at a TVET College	198
5.3	THE RELIABILITY OF QUESTIONNAIRE CONSTRUCTS	204
5.4	RESEARCH OBJECTIVES RESULTS USING DIFFERENT STATISTICAL TEST METHODS	205
5.4.1	Research objective 1	206
5.4.2	Research objective 2	208
5.4.3	Research objective 3	210
5.4.4	Research objective 4	212
5.4.5	Research objective 5	215
5.5	PRESENTATION AND ANALYSIS OF RESULTS USING DIFFERENT STATISTICAL TEST METHODS	215
5.5.1	Presentation of the Chi-Square tests	216
5.5.1.1	Presentation of the Chi-Square results from the Mann-Whitney tests	216

5.5.1.2	Presentation of the Chi-Square results from the Kruskal-Wallis test	225
5.5.2	Presentation of the Factor Analysis	236
5.5.3	Presentation of the analysis of variables (ANOVA) tests	244
5.6	SUMMARY	246

CHAPTER 6

PRESENTATION OF QUALITATIVE RESEARCH FINDINGS

6.1	INTRODUCTION	247
6.1.1	Primary research question	247
6.1.2	Secondary research questions	247
6.1.3	Research objectives	248
6.2	BACKGROUND TO THE INTERVIEWS	248
6.3	DISTRIBUTION OF PARTICIPANTS BY TVET COLLEGE AND POSITION	249
6.4	PRESENTATION OF THE INTERVIEW FINDINGS	251
6.4.1	Theme 1: institutional reputation and image as an influencer of student recruitment, retention and success in the TVET College education	254
6.4.1.1	Subtheme 1: students choose to enrol at the specific TVET College because of its institutional reputation	259
6.4.1.2	Subtheme 2: the main reputational factors that influence students to choose a specific TVET College rather than another College	262
6.4.2	Theme 2: the institutional reputation and image information sources influencing student recruitment, retention and success in the TVET College institutions	271
6.4.2.1	Subtheme 1: institutional image information sources influencing potential students to enrol at a specific TVET College institution	272
6.4.2.2	Subtheme 2: the main institutional image information sources attracting potential applicants at TVET College institutions	272
6.4.3	Theme 3: main factors improving student retention and success at TVET College institutions	277
6.4.3.1	Subtheme 1: External factors (outside the classroom) that encourage student retention and success at TVET College institutions	278

6.4.4	Theme 4: main student support factors that either motivate or hinder students to continue studying at TVET College institutions	284
6.4.4.1	Subtheme 1: main student support factors initially motivating or hindering students to continue studying at TVET College institutions	284
6.4.4.2	Subtheme 2: main student support factors continuously motivating or hindering students to continue studying at TVET College institutions	294
6.4.5	Theme 5: additional factors contributing to student recruitment, retention and success at TVET College institutions	299
6.5	SUMMARY	305
CHAPTER 7		
PRESENTATION OF QUALITATIVE RESEARCH FINDINGS		
7.1	INTRODUCTION	306
7.2	DISCUSSION OF THE FINDINGS ON DATA QUANTITATIVELY COLLECTED	306
7.2.1	Part A: Socio-demographic profile of respondents	306
7.2.2	Part B: Institutional image and reputation influence student retention and success at a TVET College institutions	309
7.2.3	Part C: The main factors that improve student success at a TVET Collegee institutions	312
7.2.4	Part D1: The main factors relating to initial student support services influencing student retention and success at a TVET College institutions	314
7.2.5	Part D2: Factors relating to continuous student support motivating/inhibiting student retention and success at TVET Colleges	316
7.3	DISCUSSION OF THE FINDINGS ON DATA QUALITATIVELY COLLECTED	318
7.3.1	Interviews	318
7.3.1.1	Objective 1	318
7.3.1.2	Objective 2	321
7.3.1.3	Objective 3	323
7.3.1.4	Objective 4	325
7.3.1.5	Objective 5	328
7.3.1.6	Objective 6	330

7.3.2	Documents perused	331
7.4	SUMMARY	332

CHAPTER 8

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

8.1	INTRODUCTION	334
8.2	MAIN FINDINGS ON REPUTATION AND IMAGE FACTORS INFLUENCING STUDENT RECRUITMENT, RETENTION AND SUCCESS AT TVET COLLEGE INSTITUTIONS	334
8.2.1	Image and reputation factors influencing student recruitment, retention and success at TVET College institutions	334
8.2.2	Implications of image and information sources influencing student recruitment, retention and success at TVET College institutions	335
8.2.3	Recommendations about reputation and image factors influencing student recruitment, retention and success at TVET College institutions	336
8.3	MAIN FINDINGS ON COMMUNICATION SOURCES INFLUENCING STUDENT RECRUITMENT, RETENTION AND SUCCESS AT TVET COLLEGE INSTITUTIONS	339
8.3.1	Conclusions regarding communication sources influencing student recruitment, retention and success at TVET College institutions	339
8.3.2	Implications of communication sources influencing student recruitment, retention and success at TVET College institutions	340
8.3.3	Recommendations regarding communication sources that influence student recruitment, retention and success at TVET College institutions	341
8.4	MAIN FINDINGS ON FACTORS IMPROVING STUDENT RETENTION AND SUCCESS AT TVET COLLEGE INSTITUTIONS	342
8.4.1	Conclusions on the main factors improving student retention and success at TVET College institutions	343
8.4.2	Implications of the main findings factors improving student retention and success TVET College institutions	343
8.4.3	Recommendations regarding factors improving student retention and success at TVET College institutions	344

8.5	MAIN FINDINGS ON STUDENT SUPPORT FACTORS THAT INITIALLY EITHER MOTIVATE OR HINDER STUDENT RETENTION AND SUCCESS AT TVET COLLEGE INSTITUTIONS	347
8.5.1	Conclusions on student support factors that initially either motivate or hinder students to continue studying at TVET College institutions	347
8.5.2	Implications of student support factors that initially either motivate or hinder students to continue studying at TVET College institutions	348
8.5.3	Recommendations regarding student support factors that initially either motivate or hinder students to continue studying at TVET College institutions	348
8.6	MAIN FINDINGS ON STUDENT SUPPORT FACTORS THAT CONTINUOUSLY EITHER MOTIVATE OR HINDER STUDENT RETENTION AND SUCCESS AT TVET COLLEGE INSTITUTIONS	353
8.6.1	Conclusions on student support factors that continuously either motivate or hinder student retention and success at TVET College institutions	353
8.6.2	Implications and recommendations of student support factors continuously motivating or hindering students to persevere with their studies at TVET College institutions	354
8.7	MAIN FINDINGS ON ADDITIONAL FACTORS CONTRIBUTING TO STUDENT RECRUITMENT, RETENTION AND SUCCESS AT TVET COLLEGE INSTITUTIONS	357
8.7.1	Conclusions regarding additional factors contributing to student recruitment, retention and success at TVET College institutions	357
8.7.2	Implications of additional factors contributing to student recruitment, retention and success at TVET College institutions	358
8.7.3	Recommendations on additional factors contributing to student recruitment, retention and success at TVET College institutions	386
8.8	LIMITATIONS OF THE STUDY	363
8.8.1	Literature study limitations	364
8.8.2	Empirical study limitations	364
8.9	RECOMMENDATIONS FOR FUTURE RESEARCH	365

8.10	EVALUATION OF THE ALIGNMENT OF OBJECTIVES AND RESEARCH FINDINGS AS CONCLUDING REMARKS FOR THIS STUDY	365
	REFERENCES	369

LIST OF TABLES

Table 4.1:	Four world views	138
Table 4.2:	Inputs-Outputs Relationship	141
Table 4.3:	Quantitative versus qualitative research: Key points in the classic debate	146
Table 4.4:	Predispositions of quantitative and qualitative modes of inquiry	147
Table 4.5:	Summary of data collection instruments to be used	155
Table 4.6:	Seven (7) steps in the data analysis process	159
Table 5.1:	Response rate	168
Table 5.2:	Distribution of respondents according to the distance in Kilometres from their permanent homes	172
Table 5.3:	Information sources on the image and reputation of the TVET Colleges	179
Table 5.4:	Factors influencing students' course and TVET College choices to possibly enhance retention and success	185
Table 5.5:	Student support factors initially motivating/inhibiting student perseverance and success at TVET Colleges	192
Table 5.6:	Student support services factors that continuously motivating/inhibiting student retention and success at a TVET College institution	198
Table 5.7:	Ranked institutional image and reputational information sources when choosing to enrol at a TVET College	206
Table 5.8:	Ranking of factors influencing student persistence and academic performance at a TVET College institution	208
Table 5.9:	Ranking of student support services factors initially either motivate/hinder student retention and success at a TVET College institution	210
Table 5.10:	Ranking of the student support services factors that continuously either motivate/ hinder student retention and success at TVET College institutions	212
Table 5.11:	The influence of gender on certain variables	217
Table 5.12:	The mode of registration on certain variables	218
Table 5.13:	Course student enrolled for on certain variables	219

Table 5.14 :	The influence of the place where students stay while studying at this TVET College on various variables	223
Table 5.15 :	How the place where students were born and grew up as a permanent resident influence various other variables	224
Table 5.16:	The influence of various variables on age in years	226
Table 5.17:	Grade 12 or high school average percentage mark's influence on various variables	228
Table 5.18:	The NCV or N-Course's influence on various variables	230
Table 5.19:	The influence of distance from the student's permanent home on various variables	232
Table 5.20:	The influence of the father or male parents' (guardian's) level of education on various variables	233
Table 5.21:	The influence of the parents' (guardian's) source of income on various variables	235
Table 5.22:	Outcomes of analysis factors	238
Table 5.23:	Institutional reputation and image information sources (Rotated Factor Matrix ^a) outcomes	238
Table 5.24:	Factors influencing student enrolment decisions (Principal Axis Factoring) outcomes	239
Table 5.25:	Outcomes of analyses factors (V21)	239
Table 5.26:	Factors supporting academic persistence and success (Rotated Factor Matrix ^a) outcomes	239
Table 5.27:	Factors supporting students' academic persistence and success (Factor Transformation Matrix) outcomes	240
Table 5.28:	Outcomes of analyses factors	240
Table 5.29:	Factors increasing academic success (Rotated Factor Matrix ^a) outcomes	241
Table 5.30:	Factors increasing students' academic success (Factor Transformation Matrix) outcomes	241
Table 5.31:	Outcomes of analyses factors (V23)	242
Table 5.32:	Factors influencing students either to remain or drop out from the TVET College (Rotated Factor Matrix ^a) outcomes	242
Table 5.33:	Factors influencing students either to remain or drop out from the TVET College (Factor Transformation Matrix) outcomes	243

Table 5.34:	Descriptive statistical analysis results	243
--------------------	--	-----

LIST OF FIGURES

Figure 2.1:	Engel, Blackwell and Miniard’s Consumer Model	74
Figure 4.1:	The Research Onion	134
Figure 4.2:	Hierarchical order of a paradigm	136
Figure 4.3:	Presents a graphical explanation of ecological systems theory functioning	139
Figure 4.4:	Inputs-outputs relationship	141
Figure 4.5:	Steps in the process of conducting a mixed methods study	143
Figure 4.6:	Representation of the triangulation of data sources	162
Figure 5.1:	Distribution of respondents according to gender	169
Figure 5.2:	Distribution of respondents according to age in years	170
Figure 5.3:	Distribution of respondents according to their Grade 12 average percentage mark	171
Figure 5.4:	Distribution of respondents according to the mode or type of registration	171
Figure 5.5:	Distribution of respondents according to the course or qualification enrolled for	172
Figure 5.6:	Distribution of respondents according to their residential place while studying at TVET Colleges	174
Figure 5.7:	Distribution of respondents according to whether they were born and grew up as permanent residents of Limpopo Province	174
Figure 5.8:	Distribution of respondents according to their father or male guardians’ highest qualifications	175
Figure 5.9:	Distribution of respondents according to their mother or female guardians’ highest qualifications	176
Figure 5.10:	Distribution of respondents according to their father or male guardians’ income	177
Figure 5.11:	Distribution of respondents according to their mother or female guardians’ income	178

APPENDICES

Appendix B:	Approved ethics certificate	433
Appendix C:	Letter of consent for participation in interview	436
Appendix I:	A letter of assent from student in a TVET College to participate in a research project	451
Appendix J:	Questionnaire for prospective students	452

CHAPTER 1

ORIENTATION TO STUDY

1.1 INTRODUCTION

“Every generation; blames the one before; and all of their frustrations; come beating on your door; I know that I'm a prisoner; to all my father held so dear; I know that I'm a hostage; to all his hopes and fears; I just wish I could have told him in the living years;say it loud; say it clear; don't give up; Don't give in; And don't know what you can do next”.

These lyrics from the song called “The living years” written in 1994 by Michael Rutherford and BA Robertson of Mike and the Mechanics aptly describe the effects of procrastination which results in missing the golden opportunity to persist and achieve individual and organizational goals. This song also emphasises the importance of understanding the environment and the interactions involved during the development of the human being for the sake of betterment of the encompassing society.

The first year of academic experience represents a stressful transition for new entrants to the further education environment (Long, Ferrier & Heagney, 2006:168). Despite a multitude of social, academic, and emotional stressors, some college students successfully cope with the complex new life role and achieve academic success. Yorke and Longden (2008:27) remark that some students are less able to successfully manage this transition and decide to leave college education during their first year or at the end of their first year, thus before achieving their qualifications. Whilst young students cite reasons such as choosing the wrong course, stress, and dissatisfaction with their perceptions and opinions as their main reasons for dropping out from their studies, the older students appear to be more focused with consequent higher retention levels at college (Krause, Hartely, James & McInnis, 2005:72). However, it is estimated that 40% of college students leave the college without getting a qualification, and 75% of these students end their studies within their first two years of college education. Tinto (2006:12) contests that the three major indicators for student retention and success with college studies pertain to the individual student’s aptitude, the education level of students’ parents, and the availability of financial aid to the student.

A worldwide concern for higher education institutions is the retention of students and the demand which this retention concern holds for higher education institutions to reduce the rate of student dropout at their campuses (Field, 2018; Thomas & Quinn, 2003:14). Student retention and success

refers to the process of assisting students to remain in a particular institution until they successfully achieve academic goals. The same concern applies to the effective management of student retention and success at Technical and Vocational Education and Training (TVET) Colleges required for developing new and innovative means to encourage students to complete their studies. Focusing on higher education institutions that, like the college environment, represents after-school education and training, higher education institutions' progression and completion rates in the United Kingdom (UK), for example, are measured by the higher education council funding, and are penalized financially for low rates of student retention.

In this regard a study in the UK with young working-class students who have dropped out from their higher education studies identified the significance of the learning experience as one of the students' reasons to withdraw from their studies (Quinn, Thomas, Slack, Casey, Thexton & Nobel, 2005:79). Laing and Robinson (2003:179) concur that the learning and teaching environments are highly influential with regard to students' success. Further, and with reference to the survival rate for students (students who enrol and complete their studies) such percentages vary remarkably between industrialized countries such as the UK and the USA with an 80% survival rate for the UK students and with just over 50% of students in the USA completing their higher education studies (National Audit Office, 2007:2; Van Stolk, Tiessen, Clift & Levitt, 2007:52).

Considered proportionately with regard to the composition of the South African economy and with reference to international standards, the size of the TVET Colleges in South Africa is too small for the size and level of the South African economy (Department of Education, 2008:26). Industrial countries have 6% of their youth cohort in the vocational education institutions whereas in South Africa a comparable percentage is 2% (Department of Education, 2009:7). It can therefore be argued that the size of the TVET College system in South Africa should be increased by at least fivefold.

A holistic TVET College approach is necessary to make a significant impact on issues such as generally poor student retention, low student throughput and completion rates, and variable student success. The major changes within the comprehensive TVET College education require an absolute commitment and a clear vision from the management of each TVET College shared by all the stakeholders of the specific institution. An investigation of factors influencing students' withdrawal from the TVET institutions without completing their studies, with counteracting measures for this situation, was carried out in this research undertaking in order to provide guidelines for the effective management of student retention and success in TVET Colleges. The key concepts used in the context of this study are defined and their meanings explained in section 1.9.

1.2 BACKGROUND TO THE STUDY

Strategy III as an initiative of the National Skills Development Plan is focused on addressing the pressing challenges that are impacting on the ability of the South African economy to expand and provide increased employment opportunities to its potential labour force (DHET, 2011:5). Related to these initiatives are the strategies of the Department of Higher Education and Training (DHET) to expand so as to widen student participation, and accommodate increased student access and enrolments. However, the rapid expansion of an education system carries with it the danger of compromising the quality of education during the expansion processes (DHET, 2012:27). Already in 2003 Wild and Ebbers stated that student survival rates as an important indicator confirming the effectiveness of after-school tuition are closely related to the degree to which educational institutions invest time and money in education with eventual measurable outcomes. In 2018 the statement is still relevant, and even more so as these institutions are expected to increase their enrolment (Howard, 2018).

Recognizing the importance of the TVET College education, the National Plan for Further Education and Training released in December 2008 committed government to increasing the youth and adult participation in TVET Colleges to 1 million enrolled students by 2014 (Round Table Working Document, 2010:10; & Stumpf, 2009:7). Expanding access and increasing student enrolment in the TVET Colleges whilst ensuring satisfactory levels of student retention and graduation presupposes a serious challenge that will require intensive and comprehensive support to the affected institutions.

As the TVET College environment expands its enrolments, this environment must ensure that the quality of the education and training that they offer is relevant, contemporary, and of a high quality. Maintaining high quality of education ensures that throughput rates and the output of college graduates are increased, and that the wastage of valuable resources is minimized. To contribute to increased student attainment, the TVET Colleges need to improve student completion rates without sacrificing student access and ensure that quality of public resources is maintained (Jenkins & Rodríguez, 2013:188; Vinjevold, 2009:2). The TVET Colleges are therefore expected to be more productive and more efficient in utilizing the public resources.

A consequence of post-school institutions' increased access is the demand relating to retaining increased student of different age groups from wider ranges of educational, social and cultural backgrounds (Thomas, 2008:69). Yorke and Longden (2004:43) confirm that the increase of student

from different backgrounds on account of increased access and the demand thereof on tuition provisioning for sustained outputs as a pertinent factor influencing each and every individual TVET College. Ensuring viable outputs in the face of poor student retention with accompanying low student progression to next grades are prevailing conditions demanding sustained concerted efforts for improvement in post-school education and training in general, and in the Further Education Colleges (FEC) specifically (Long, Ferrier & Heagney, 2006:125; McInnis & James, 2004:92).

Prior to 2009 in South Africa the responsibility for education and training was divided between the Departments of Education and Labour, which made it difficult to coordinate. The creation of the Department of Higher Education and Training (DHET) which is separated from the Department of Basic Education (DBE) in 2009 represents large increase towards integrating the vocational education and training policy framework.

The White Paper for Post-School Education and Training, approved by Cabinet in November 2013, integrated the universities, college environment, adult learning centres, private institutions, environment education and training authorities (SETAs), the National Skills Fund (NSF) and regulatory bodies responsible for qualifications and quality assurance into one post-school system.

The DHET is responsible for the post-school system. The president of the Republic of South Africa signed the proclamation for the commencement of sections 24, 25(2) and 25(3) of the FET Colleges Amendment Act, 2013 (Act no 1 of 2013) on 24 January 2015 to come into operation on 1 April 2015 (DHET:2015). All the former Further Education and Training Colleges (FETC) have been renamed Technical and Vocational Education and Training (TVET) Colleges without changing the individuality of each College. The TVET are tasked with the responsibility of strengthening partnerships with the SETAs and employers, both at the system and College levels (DHET, 2015). These partnerships intend to assist in locating opportunities for work-integrated learning, place students at workplaces after completion of their qualifications, and obtain regular workplace exposure for College lecturing personnel. Consequently, throughout this study the name of public Further Education and Training (FET) Colleges will be referred to as the TVET Colleges.

1.2.1 Theoretical framework

Researchers understand theoretical frameworks as consisting of concepts, together with the definitions for those concepts, as directing frameworks for further research. The theoretical framework demonstrates an understanding of theories and concepts that are relevant to the title under

investigation. In order to understand the relationship between the student's developmental aspirations and various factors, settings, or systems such as TVET Colleges, it was necessary to use a relevant theory that provide constructs for discussions with regard to different variables that influence the management of student retention and success in an educational institution.

The researcher considered the use of ecological theory of Bronfenbrenner as the main and suitable theory in this study as explained next.

Ecological systems theory as developed by Bronfenbrenner (1979, 1995) and cited by Johnson (2008:2) and Strayhorn (2009:710) divides the individual's relationships with the environment into five different, but interrelated levels of functioning.

These levels are categorized as the microsystem, mesosystem, exosystem, macrosystem, and chronosystem of which each of these levels has different effects on the individual's being as explained in section 4.4.2.

1.2.2 The nature of the Technical and Vocational Education and Training College education

The Department of Higher Education and Training (2010:6) avers that the restructuring of the TVET College environment which started in 2000 resulted in the establishment of 50 TVET Colleges after the merging of 152 Technical Colleges of the former apartheid dispensation. Consequently, the incisive restructuring of the stand-alone former Technical Colleges reduced them drastically in favour of the larger Further Education and Training Colleges with 264 sites called campuses (Stumpf, 2009:7). It is worth noting that these TVET Colleges are geographically distributed across South African Provinces as: Eastern Cape-8; Free State-4; North West-3; Gauteng-8; Mpumalanga-3; KwaZulu-Natal-9; Limpopo-7; Northern Cape-2; and Western Cape-6.

Considered from a post merging perspective, the TVET College system has experienced a large investment through the recapitalization process initiated by the state which was implemented in 2007. The Department of Higher Education and Training (DHET) argues, however, that there is limited research available that provides a nuanced picture of the TVET College education reflecting its strengths and weaknesses regarding the effective management of student retention and achievement (DHET, 2011:14). In addition, the academics and research organizations are urged to identify the relevant research foci and related research regarding endeavours pertaining to how the merged TVET Colleges can be managed and retain the increased number of students enrolled at the same time. The management of student retention, progress and achievement measures in the TVET Colleges can be viably supported by a sound investigation of the students at risk of withdrawing from these institutions

and their reasons for dropping out of their studies before completion of their studies. It is equally important to investigate the profile of students who persist to complete their studies so as to determine the main factors influencing these students' perseverance which may assist in the management of student retention and success.

1.2.3 Challenges with viable Technical and Vocational Education and Training provisioning

One major challenge facing the TVET College system as a whole is its small size (DHET, 2012:19; 2019). The South African DHET suggests that by 2030 there must be a substantially expanded college system. However, an expansion of the TVET College system must create comprehensive realistic opportunities involving student success for increased social mobility while contributing to eventual higher levels of economic growth. Increasing student access and enrolment merely for the sake of creating an immediate short-term lowering of youth unemployment levels serves only that purpose (DHET, 2011:27; 2018).

All the public TVET Colleges in South Africa located in urban, semi-urban and rural areas require some interventions to improve the quality of teaching and learning offered (Stumpf, 2009:7). Accordingly, the DHET has developed a comprehensive turnaround strategy for skills development focusing on all the TVET Colleges covering all the multi-campus in South Africa (Nzimande, 2012: 3). The turnaround strategy aims to systematically address the key challenges that have faced the TVET College environment over the past years in order to achieve sustainable improvements in the quality of teaching and learning. The turnaround strategy intends to restore the status of the TVET Colleges as valuable higher education contributors to the society's youth, claiming its rightful place in contributing to driving the country's economy, thereby reducing unemployment rate, especially among the youth as main entrants to the College education. The DHET is envisioning turning the TVET Colleges into institutions of viable choice for prospective students. The key short-term steps to improve TVET College education and student throughput rates include the training of lecturers aiming at improving subject expertise, and ensuring that TVET Colleges select students who are most likely to be successful while strengthening their ability to succeed (Buthelezi, 2018; DHET, 2012:21; Redmond, 2017).

In this regard, suggestions for improved student retention and success would be centrally designed admission tests as well as bridging programmes to increase reasonably good chances of student success.

Globally considered, with relevance to the local situation, a study conducted on student retention and success in the UK revealed that many students experience academic-related culture shock due to not being sufficiently prepared for the transition from school to college education. Some of the key factors found to make the transition difficult were large class size, the combination of the increased work load with more personal freedom of life management, and not knowing how to adjust to this new learning environment (Quinn, Thomas, Slack, Casey, Thexton & Nobel, 2005:82; Xu, 2018).

In line with the above view, the TVET Colleges need to involve effective teams in monitoring class attendance at their institutions and intervene where there are problems of unauthorized absenteeism as well as any other signs of withdrawal from the college. The establishment of a well-designed data reporting mechanism that will assist in managing and curbing unauthorized absenteeism which leads to student withdrawals can assist with the development of counteracting mechanisms for student retention. Whilst the DHET expects the TVET Colleges to increase student access, this study on the management of student retention and success intends to determine how TVET Colleges can retain the increased number of enrolled students as they progress to successfully achieve their academic goals.

1.2.4 Lecturing staff and students in a Technical and Vocational Education and Training institution

In general, the lecturing staff of TVET Colleges can be divided into three categories (DHET, 2012:24). Firstly, there are lecturers in technical fields that, throughout the years, have been recruited from industry. In most cases such lecturers possess technical qualifications, workplace experience and knowledge of the work-related content, but little pedagogical training. A second category of lecturers represent those lecturers who teach in academic subjects like language, mathematics and science. These lecturers entered the TVET Colleges with academic teaching qualifications, but with little experience of the workplace of an industrial-related setting. The third category of lecturers pertain to lecturing staff who completed their national technical diploma (N6) courses in the TVET Colleges, or who obtained a national technical diploma from Universities of Technology.

Most of the lecturers in this third category have limited knowledge of the subject content with limited workplace experience. They therefore do not have adequate knowledge of teaching methodology or have adequate practical experience of the workplace. Compared to third category of lecturers, are artisans who have worked in industries before joining the College environment and possess excellent workplace-related knowledge.

The proposed process of promoting growth of the South African TVET College environment as mandated by the DHET requires functional commitment from both the specific college and its enrolled students (DHET, 2012:29). Ensuring that the large number of enrolled students is retained by the different TVET Colleges until these students obtain their qualifications requires a cross-college dimension of flexibility, flow and consistent strong support from each college's personnel. The planned increase in student intake in the TVET College institutions in South Africa must be accompanied by increased student retention, increased student throughput rates, and increased work placement opportunities for students in order to realise the return on public investment (Department of Education, 2008:39). Roman (2007:21) confirms that student attrition in the College education is perceived as a waste of resources that may be productively deployed elsewhere.

It is against this background that the current study investigated how best can student retention and success at TVET Colleges be effectively managed. Having outlined the background, it is important to briefly state the motivation for this study.

1.3 MOTIVATION FOR THE STUDY

The researcher witnessed and participated in the merging processes of the former Technical Colleges into the current South African multiple-campus TVET College system. From August to November 2001, the researcher visited three different Further Education Colleges in the UK's Central Scotland region. This educational visit was aimed at gaining a better understanding of how the UK Student Support Services managed and supported the enrolled students in Further Education Colleges. The visit also focused on how the UK's Further Education Colleges (FEC) recruit and retain students, place and trace these students' progression into the working environment.

Falkirk FEC, located in Falkirk town, was one of the biggest FEC with regard to student enrolment, and offered a variety of programmes in both Engineering and Business. This college had Sterling as its only satellite campus. Clackmann FEC, located in the small town of Clackmann, was a medium sized FEC, with a limited number of students enrolled and offered a limited number of courses. Cumbernauld FEC, which is in the rural area of Cumbernauld, was a significantly small FEC that offered few courses. The researcher attended seminars and participated in issues relating to student support, various forms of financial assistance to the needy students, and how FECs recruit, retain and graduate the enrolled students. The Central Scotland FECs had a similar academic set up and geographical situatedness which resembled the merging set up of the TVET Colleges in Limpopo

Province. The TVET Colleges in South Africa, and therefore also in Limpopo Province, were also merged to form mega Colleges with multiple campuses with increased student enrolments.

Subsequent to the recapitalization of the TVET Colleges in South Africa, the DHET took steps to enhance access to these TVET Colleges and the quality of courses they provide (DHET, 2010:8). The goal was to increase the number of youth and people out of school to access post-school education at these Technical and Vocational institutions. Widening student participation rates in the national certificate focusing on vocational education was promoted as an alternative matric offered at TVET Colleges to the 20% of youth who are not attending pure academic-related educational institutions.

In highlighting the importance of the radical changes within the Further Education and Training Colleges, Stumpf (2009:7) argues that, if the TVET Colleges are expected to respond to widening student participation and increasing student access as mandated by DHET, their capacity to retain the increased number of students enrolled must progressively be enhanced in order to enable them to do so appropriately and efficiently. In this study widening student participation refers to the recruitment and enrolment of students from different socio-economic status and qualification background. The TVET Colleges also need to ensure that the enrolled students remain in their courses until they achieve their academic goals.

Some scholars argue that it is widely understood that a student's background or demographics and pre-college academic ability are important predictors of a student's ability to graduate (Perkhounkova, Noble & McLaughlin, 2006:8; Ishitani, 2003:438; Ishitani & Snider, 2006:6). Other scholars are of the opinion that not only do the background and pre-college characteristics of students serve as important factors determining student persistence, but also the student's readiness for the college's more academic approach (De Long, Radcliffe & Gorny, 2007:49; Radcliffe, Huesman, & Kellogg, 2006:116; Radcliffe, Huesman, Kellogg & Jones-White, 2009:85). Of equal importance are the admission requirements for the first time applicants to the college and first-term progress reports as significant predictors of academic success. However, little has been done with regard to the management of student retention and progression in the TVET Colleges in Limpopo Province.

Against the background of the practical involvement in the TVET education, the researcher investigated how best can student retention and success at TVET Colleges be effectively managed whilst these institutions increase student access and enrolments. The interaction with student structures at various TVET Colleges in South Africa, the exposure to the international FEC system,

and working in the curriculum section of the Limpopo Provincial Department of Education inspired the researcher to engage with this study on student retention and achievement in the TVET College environment.

The intention with this study was to determine how best can student retention and success at TVET Colleges be effectively managed to be considered by different stakeholders within the TVET College environment so as to contribute towards the existing pool of knowledge on this title. The relevant stakeholders in this study include practicing campus managers, student support managers, admission officers and counsellors, financial aid counsellors, orientation managers, and academic personnel. The outlined motivation to this study necessitates stating the research problem of this investigation.

1.4 PROBLEM STATEMENT

Considerable theoretical and empirical effort has been given to the understanding of the process of managing student retention and achievement in post-school institutions (U.S. Department of Education, 2006:157). Accountability pressures from governments across the globe have raised the importance of identifying and removing barriers to students' progress and success in all types of after-school institutions. While within the South African context the DHET expects the TVET Colleges to widen student participation and increase the student intake by approximately 2.5 million by 2030, the TVET Colleges are characterized by low student retention and success rates (DHET, 2013:13). The low throughput rate (4%) of South African TVET Colleges in general, the high dropout rate (between 13% and 25%) of the national certificate vocational programmes, and poor certification rate (12%) of the national technical courses, remain a constant concern (DHET, 2012: 22; Nzimande, 2012:4). As it was said in sections 1.2.2-1.2.4, each student who leaves the TVET College before completing the targeted qualification costs the society with regard to the forfeited skill gained and the College with regard to the unrealized tuition as well as the student retention and success rates used to determine the funding of the institutions.

Some aspects related to student retention and success factors that not much research has been conducted in the TVET Colleges in Limpopo Province include factors such the institutional image and reputation, location of each TVET College, qualifications and programmes matching students' learning expectations and experiences, available financial aid, career guidance and employment opportunities, bridging or preparatory courses, college-attendance, admission requirements, student orientation and induction, curriculum delivery and pedagogical challenges, student readiness for post-school education and training, language factor, academic support, study and living space, and student support services. Addressing these aspects may turn the TVET Colleges into institutions of viable

choice for prospective students and eventually contribute towards the national economic development.

The effective management of student retention and success at TVET Colleges, particularly in Limpopo Province requires that these institutions reduce the rates of student dropout in order to positively improve the image and the reputation of these institutions as well as gaining favourable funding support from various sources.

The researcher used the above student retention and success related factors to guide this research project, and the formulation of both the primary and secondary research questions which were divided into quantitative (phase 1) and qualitative (phase 2) questions as explained next.

1.5 RESEARCH QUESTIONS

There are two types of distinguishable research questions, namely general research questions and specific research questions (Lune & Berg, 2017; Punch, 2005:33). Furthermore, the general research questions guide the thinking and assist in organising the research project, but are not specifically to be answered, whereas specific questions direct the empirical procedures and they are the specific questions to be answered. In support of this view, Blaikie (2010:58) and Creswell (2009:132) argue that research questions are important in defining the nature and scope of the research wherein quantitative research questions inquire about the relationship between the variables that the researcher investigates. According to Punch (2005:36) five main guiding pointers which the research questions do in a research project are to:

- organise the research project and give directive and coherence,
- delimit the study, indicating its boundaries,
- keep the researcher focused during the investigation,
- provide the framework for writing up the research report, and
- point to the data that will be needed.

The researcher used the above pointers as guidelines throughout this study and formulate the primary research question and the secondary research questions as divided into quantitative (phase 1) and qualitative (phase 2) questions.

1.5.1 Primary research question

Based on the preceding discussion, the main research question for this study is concerned with the aspects influencing the effective management of student retention and success at TVET Colleges within the South African context. The primary research question provided the researcher with guidance regarding the identification of the relevant literature, research methods, measuring instrument, data collection and analysis methods throughout this study. The primary research question is formulated as follows:

How can student retention and success at TVET Colleges be effectively managed?

1.5.2 Secondary research questions

In answering the primary research question above, the researcher used the mixed-methods research approach in formulating the secondary research questions wherein quantitative research paradigm was used for phase 1 and qualitative research paradigm for phase 2 of this study as outlined next and in section 4.5.

(a) Quantitative research questions (phase 1)

The five quantitative research sub-questions (phase 1) focusing on the students' opinions and perceptions on factors influencing student retention and success were formulated as follows:

- What is the influence of institutional image and reputation information sources on student recruitment, retention and success at the TVET College institutions?
- What are the main factors that influence student persistence and academic performance at the TVET College institutions?
- What are the main student support services factors that initially motivate or hinder student retention and success at the TVET College institutions?
- What are the main student support services factors that continuously motivate or hinder student retention and success at the TVET College institutions?
- What are other additional factors that contribute to increasing the effective management of student recruitment, retention and success at TVET Colleges?

(b) Qualitative research questions (phase 2)

The following six qualitative research sub-questions (phase 2) focusing on the participants' knowledge and lived experience regarding the management of student retention and success were formulated:

- What are the main institutional image and reputational aspects that influence students to choose a specific TVET College?
- What are the main institutional communication sources used in recruiting prospective students to enrol at TVET Colleges?
- What are the main aspects that influence student persistence and academic performance at a TVET College?
- What are the main student support services aspects that initially either motivate or hinder student retention and success at the TVET College institutions?
- What are the main student support services aspects that continuously either motivate or hinder student retention and success at the TVET College institutions?
- What are other additional aspects that should be considered for improving student recruitment, retention and success at the TVET College institutions?

These research questions assisted in the formulation of research objectives as well as the questions that were administered through the questionnaire and semi-structured interviews used to collect data from students as respondents and from employees as interviews participants in this study.

1.6 RESEARCH OBJECTIVES

The definitions of student retention and completion rates which vary from one country to another distort the picture of student success by limiting student success to the completion of the academic goal at the specific institution (Jones-White, Radcliffe, Huesman, & Kellogg, 2009:54). This investigation on student retention and success at TVET Colleges implies students who enrolled at any TVET College had the intention to complete their studies at the same TVET College. The overall objective of this study was to investigate as to how best student retention and success at TVET Colleges can be effectively managed within the South African context. This study also aimed to unearth the crucial factors which play an important role in students' persistence and attrition.

This study's primary research objectives were divided into quantitative research (phase 1) and qualitative research objectives (phase 2) as outlined next.

(a) Quantitative research objectives (phase 1)

The primary research objectives in phase 1 of this study were to:

- determine the extent to which institutional image and reputation information sources influence the management of student recruitment, retention and success at the TVET College institutions;
- determine the main factors that influence student persistence and academic performance at a TVET College institutions;
- investigate main student support services factors that initially either motivate or hinder student retention and success at the TVET College institutions;
- determine main student support services factors that continuously either motivate or hinder student retention and success at the TVET College institutions; and
- ascertain any additional factors contributing to the increase in the management of student recruitment, retention and success at TVET Colleges.

(b) Qualitative research objectives (phase 2)

The primary research objectives in phase 2 of this study were to:

- investigate which institutional image and reputational aspects influence students to choose a specific TVET College rather than the other;
- determine the main institutional communication sources used in recruiting prospective students to enrol at TVET Colleges;
- investigate the main aspects that influence student persistence and academic performance at a TVET College;
- determine the main student support services aspects that initially either motivate or inhibit student retention and success at the TVET College institutions;
- determine the main student support services aspects that continuously either motivate or hinder student retention and success at the TVET College institutions; and
- ascertain any other additional aspects that may contribute towards the management of student recruitment, retention and success at the TVET College institutions.

1.7 RESEARCH HYPOTHESES

Based on the above discussion, it is hypothesised that:

- H₁: male and female students differ with regard to the importance they attach to the institutional image and reputation of the TVET College information sources, factors improving student academic performance, and factors increasing the effective management of student recruitment, retention and success in the TVET College insitutions.
- H₂: students using different modes of registration differ with regard to the importance they attach to the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing the effective management of student recruitment, retention and success in the TVET College insitutions.
- H₃: students enrolling for different courses or programmes or qualifications differ with regard to the importance they attach to the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing the effective management of student recruitment, retention and success in the TVET College insitutions.
- H₄: students staying at different residential places (away from their homes) while studying at the TVET College differ with regard to the importance they attach to the institutional reputation and image of the TVET College information sources, and factors improving student academic performance, factors increasing the effective management of student recruitment, retention and success in the TVET College insitutions.
- H₅: students from different permanent places of birth differ with regard to the importance they attach to the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing the effective management of student recruitment, retention and success in the TVET College insitutions.
- H₆: students of different age (in years) differ with regard to the importance they attach to the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing the effective management of student recruitment, retention and success in the TVET College insitutions.

- H₇: students with a Grade 12 or high school average percentage mark of sixty percent or more differ with students with a lower Grade 12 average percent with regard to the importance they attach to the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing the effective management of student recruitment, retention and success in the TVET College insitutions.
- H₈: the NCV or N-Course qualification differ with regard to the importance they attach to the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing the effective management of student recruitment, retention and success in the TVET College insitutions.
- H₉: students who reside 50 kilometres away from their permanent homes differ with regard to the importance they attach to the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing student recruitment, retention and success in the TVET College insitutions.
- H₁₀: the parents'(guardian's) level of education influence students' attachment to the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing the effective management of student recruitment, retention and success in the TVET College insitutions.
- H₁₁: the parents'(guardian's) source of income influence students' attachment to the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing the effective management of student recruitment, retention and success in the TVET College insitutions.

1.8 RESEARCH METHODOLOGY

As research methodology scientifically guides the researcher on gathering credible and trustworthy data in relation to the research problem with the accompanying research questions, both a literature study and an empirically studies, in this study the researcher used the mixed-methods research approach to investigate as to how student retention and success in the TVET Colleges can be

effectively managed. This implies that a quantitative research (phase 1) and a qualitative research (phase 2) approaches were used in this same study to complement each other's findings.

1.8.1 Research paradigm and approach

Different scholars contend that a research paradigm represents a collection of logically related assumptions, concepts and propositions that orientate thinking and practices that are employed by the researcher to find meaningful answers to the postulated research question (Baronov, 2012:77; Bogdan & Biklen, 2007:24; Johnson & Christensen, 2004:29). With regard to the research paradigm Spatz and Kardas (2008:30) reason that in interpretivism or constructivism theory, reality and ethics are relative, hence human beings experience similar situations differently because of their biological sex, psychological experiences, and social environmental interaction to create separate and distinct realities. People's ethical decisions vary because of a number of factors such as historical timelines, cultural backgrounds, and contemporary situations. The interpretivist or constructivist researcher assumes relativist ontology, a subject epistemology, and a naturalistic set of methodological procedures (Denzin & Lincoln, 2011:13). Reko (2012:112) argues that interpretivists believe that the world is socially constructed and social phenomena exist independently of interpretation, which implies that an objective analysis is impossible.

With this investigation on the management of student retention and success in the TVET College institutions the researcher understands that the research paradigm as the ontology, or nature of existence, represents the way in which reality is considered and understood in order to progress to the specific research approach as the way of generating knowledge whether by means of a qualitative, quantitative or the combination of qualitative and quantitative (mixed-methods) research approaches to prompt the specific research methods best suited for the collection of viable data in order to answer the research question satisfactorily. Creswell and Clarke (2011:41) affirm that an interpretivist/constructivist researcher works from the meaning of the phenomenon formed through participants and their own objective views. When participants provide their understandings, they respond from their experiences shaped by their social interactions with other people and from their own personal histories.

In this study on the management of student retention and success the researcher departs from an interpretivist/constructivist paradigm as the focus is on the understanding of the functioning of a specific phenomenon, namely a contextual TVET College education.

Progressing from the research paradigm, namely an interpretivist/constructivist paradigm, the researcher understands qualitative research to be descriptive in nature which is associated with the gathering, analysis, interpretation, and presentation of narrative information, whereas a quantitative research approach represents the confirming of anticipated outcomes (Bogdan & Biklen, 2007:4; Neuman, 2007:7; Teddlie & Tashakkori, 2009:6). The researcher is further aware that a qualitative research (phase 2 of this study) approach draws a descriptive orientation that focuses on the complex and nuanced process of the creation and maintenance of meaning, whereas quantitative (phase 1 of this study) measures are focused on frequencies and percentages. As opposed to quantitative measures, the data collected via qualitative approaches could take different forms such as words or pictures rather than numbers, and relies on research instruments such as interview transcripts, field notes, photographs, videotapes, personal documents, memos, and other official records.

Bernard (2006:298), Johnson and Christensen (2004:417), and Creswell and Clark (2007:6) are in agreement when they say that in the mixed-methods research approach, the researcher systematically uses a quantitative approach in one phase and the qualitative approach for the other phase of this same research study. Realizing the strengths and weaknesses in both the qualitative and quantitative research approaches, the researcher used the mixed-methods research approach for the sake of gaining a deeper understanding as to why some students withdraw from their studies at TVET Colleges whilst others remain within the same institution to complete their academic goals. The mixed-methods research approach also improved the overall quality of this investigation of the management of student retention and success at TVET Colleges as it represents a more thorough approach to data collection.

1.8.2 Selection of sites and participants

Population, sometimes called target population, is the object of the study which consists of individuals, groups, organizations, human products and events, or the conditions to which they are exposed (Johnson & Christensen, 2004:199; Welman, Kruger & Mitchel, 2005:52-53). A population is the full set of cases from which a sample is taken. In this regard Neuman (2007:146) states that the researcher draws a sample from a larger pool of cases or elements. With this study, the researcher is interested in learning about the management of student retention and success, and wants to understand the sample results as representative of the target population, namely the specific group of TVET Colleges. With regard to the research population, Limpopo Province as the most Northern Province

in South Africa has seven TVET Colleges with a total of 18 campuses that are relevant for providing adequate information regarding the management of student retention and success.

According to Bernard (2006:191) convenience is the method of selecting phenomena to contribute to the solution of the research question based on what is conveniently achievable for the researcher. Convenience includes the feasible way to proceed to collect data about a group or category of people who are relatively rare in the population (Maxwell, 2013:97; Wimmer & Dominick, 2003:87). From this research population of seven TVET Colleges with a total of 18 campuses, six TVET Colleges consisting of 15 campuses were selected as the research sample. These six TVET Colleges in Limpopo Province were selected as research sites as they were approachable with regard to distance. In line with the work by De Vos, Strydom, Fouché and Delport (2005:202), Pickard (2007:64), Teddlie and Tashakkori (2009:173), and Wimmer and Dominick (2003:189), the participants were selected purposefully owing to the fact that each of these six TVET Colleges is the result of the merged TVET Colleges which was based on widening student participation, increasing student access and enrolments in order to change the formerly small and under-resourced Technical Colleges into mega institutions with improved resources.

As non-academic personnel and academic staff were selected to as participants during the interviews and fulltime students as respondents representing TVET Colleges of different size located in different geographical areas, the researcher intentionally selected the employees (for qualitative phase 2) and fulltime students (for quantitative phase 1) from Capricorn, Letaba, Lephalale, Sekhukhune, Waterberg and Vhembe TVET Colleges to provide information-rich responses with regard to the management of student retention and success in the specific context. Some of the campuses selected as research sites are located in towns whereas others are in the semi-rural areas. The selected campuses differ in size regarding the number of students enrolled, lecturing staff and the courses they offer.

In purposeful sampling, particular settings, persons, and activities are deliberately selected to provide information that is particularly relevant to the phenomenon of study (De Vos *et al.*, 2005: 202; Creswell & Clarke, 2011:173; Krathwohl, 2009:172; Maxwell, 2013:97), which in this case pertains to the management of student retention and success in the TVET College insitutions. The indicators for selecting TVET College personnel for participating in the study were based on expert knowledge due to active involvement in student enrolment projection; student recruitment and admission; student induction and career guidance; and the day-to-day teaching and learning at the specific TVET

College. The indicators for selecting fulltime students as respondents were based on the fact that these students are recruited into the TVET Colleges from a variety of backgrounds. Students bring with them a set of expectations representing their anticipation of what it will be like at the college. Some of their expectations are unrealistic as these expectations are based on their specific secondary school experiences which, in many instances, did not prepare students well for college environment conditions.

The research sample for the qualitative research phase 2 comprises four employees and 100 fulltime students for the quantitative research phase 1 from one campus of each of the six TVET Colleges representing that specific TVET College. The four members of staff from each campus comprised the Campus Manager, one TVET College Lecturer, one Student Support Manager, and one TVET College Enrolment Manager. The total number of sample for this study on the management of student retention and success in the TVET College insitutions comprised 24 employees participating in the semi-structured interviews and 600 fulltime students responding to the questionnaires. In line with the views cited by De Vos (2006:197), this research sample representing the comprehensive categories of stakeholder participation ensured that the different groups of the research population were well represented.

The selected sample was further stratified into sub-strata representing academic staff who teach the national certificate vocational programmers and academic staff who teach the national technical education courses with fulltime students enrolled in the respective courses from each of the selected TVET Colleges.

1.8.3 Data collection

Contemplating the methodology used to collect data in order to answer the research question viably, the researcher knew that the mixed-methods research approach is a research approach where the investigator collects and analyses data, integrates the findings, and draws inferences using both qualitative and quantitative approaches in the same study (Teddlie & Tashakkori, 2009:7). Examining the phenomenon on student retention and achievement in the TVET Colleges through the mixed-methods research approach improved the overall quality of the investigation because, and as confirmed by Picard (2007:86), Welman *et al.* (2005:143), and Wimmer and Dominick (2003:118):

- the consistency of the findings is confirmed through triangulation using different data collecting instruments

- complementarity of the different approaches refines the end results of the research
- the development of results from one approach influence subsequent research steps
- answers originating from the questions from one approach lead to further research opportunities.

1.8.3.1 Qualitative research approach

As qualitative research is descriptive in nature which is associated with the gathering, analysis, interpretation, and presentation of narrative information (Bogdan & Biklen, 2007:4; Neuman, 2007:7; Teddlie & Tashakkori, 2009:6) the research approach draws a descriptive orientation that focuses on the complex and nuanced process of the creation and maintenance of meaning. As said in section 1.6.1, the data collected via a qualitative research approach take the form of words or pictures rather than numbers relying on interview transcripts, field notes, photographs, videotapes, personal documents, memos, and other official records. Welman *et al.* (2005:188) point out that qualitative research is an approach rather than a design or a set of techniques. It covers an array of interpretive techniques seeking to describe, decode, translate and conclude with the meaning of naturally occurring phenomena in the social world. The qualitative research approach can successfully be used in the investigation on the management of student retention and success in the TVET College institutions. For the purpose of this investigation, the researcher used semi-structured, individual, in-depth interviewing to collect data from the campus managers, student enrolment or admission managers, student support managers, student orientation managers, and academic staff in order to obtain an in-depth understanding of the main reasons some students withdraw from the course they enrolled for whereas others persevere until they complete their studies. The collection of data also focused on the strategies that the TVET Colleges implement to ensure that students remain at college until they achieve their qualifications. The management of student retention and graduation databases (statistics) and other related documents supplemented the data collected via individual interviews.

- **Credibility and trustworthiness**

Credibility and trustworthiness are two very important factors to consider when collecting and analysing qualitative-related data, and presenting the findings. Trustworthiness is arranged by clearly outlining the research processes that are closely related to the honesty and integrity of the researcher (Saldana, 2011:135). With regard to credibility, Teddlie and Tashakkori (2009:26) point out that it relates to prolonged engagements, persistent observation, and triangulation. Sing (2013:202)

emphasizes that the credibility criteria for qualitative research involves establishing that results of the qualitative study are credible and believable from the perspective of the participant in the research. The purpose of the qualitative research approach is to describe, with understanding, the phenomenon of interest from the participant's point of view, where the only ones who can legitimately judge the credibility of the results are the participants themselves.

Furthermore, credibility is concerned with whether the research achieved intimate familiarity with the setting or topic. The credibility of the study must be sufficient to merit the researcher's claims, justified by the researcher's systematic comparisons between observations and between categories (Charmaz, 2006:182). The logical links between the gathered data, arguments and analysis has to provide sufficient research evidence for the researcher's claims that will allow the reader to form an independent assessment.

With this study on the management of student retention and success in the TVET College insitutions, the researcher as an interviewer probed for extensive responses on different research questions from the participants during the interview process in order to verify that the different nuances on the specific theme were comprehensively explored. The researcher ensured that this study accounted for credibility and trustworthiness, firstly by clearly and correctly citing different key participants' opinions on the management of student retention and completion of post-school education and, secondly, by carefully analysing the collected data.

1.8.3.2 Quantitative research approach

In addition to the qualitative research approach for collecting data, and for the purpose of a deeper understanding of the phenomenon of study, namely the management of student retention and success in the TVET College insitutions, through a self-administered questionnaire data were collected quantitatively. The purpose of the quantitative research approach (also known as pertaining to a positivist research paradigm) is to evaluate objective data consisting of numbers (Welman *et al.*, 2005:8). In line with Creswell and Clarke's (2011:188) work regarding the use of developed questionnaires during the quantitative research approach, the researcher developed questions relating to the themes covered with the quantitative investigation to determine from respondents in each research site what were the most important predictors of students' persistence and the completion of studies.

- **Questionnaire**

Most often researchers deliver questionnaires by hand so that the respondents can complete them in their own time after which the researcher returns to collect the completed questionnaires at a later stage (De Vos *et al.*, 2005:168). To minimize covering a small number of respondents, to save time, and to clarify when respondents experienced any difficulties with the questionnaires, the researcher made an appointment to deliver the questionnaires with closed- and open-ended questions which were used to collect data regarding the factors influencing the management of student retention and success in TVET College institutions. In line with the work of Rugg and Petre (2007:149) and Welman *et al.* (2005:174-175) on questionnaire composition, the questionnaire for this study comprised of closed-ended questions based on a Likert-type scale answering approach with one open-ended question at the end of the questionnaire. The open-ended question prompted respondents about their beliefs, judgments and experiences with regard to the management of student retention and success in the TVET College environment. The data were collected from fulltime students of the six selected TVET Colleges anticipated to the total of 600 completed questionnaires.

- **Validity and reliability**

Validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept of investigation (Babbie & Benaquisto, 2010:141; De Vos *et al.*, 2005:160), which in this study comprised the management of student retention and success in the TVET College institutions. From a quantitative research perspective, reliability refers to the consistency with which an instrument measures whatever it is intended to measure, whereas validity deals with the degree to which evidence and theory support the interpretation of the test scores (De Vos *et al.*, 2005: 162; Krathwohl, 2009:413; Opperman, 2009:147). Reliability is also a matter of whether a particular technique, applied repeatedly to the same object, yields the same results each time it is used (Babbie & Benaquisto, 2010:139; Welman *et al.*, 2005:145). A reliable system of measurement or coding is therefore consistent in a manner that each time it is used; it yields the same measure or code. If two researchers, for example, work together, and both follow the same procedure using the same data, they should produce the same measures or codes (Perrie & Bellamy, 2012:21). Furthermore, validity pertains to the degree to which the statements used are approximate to the truth.

The questionnaire with closed-questions and one open-ended question developed for the quantitative data collection part of this study were developed in such a way that if it is used to collect data from

additional respondents, using the same data collection strategy, it should yield similar results. In this study the Statistical Package for the Social Sciences analysis software was used in analysing the data collected through the questionnaires. The graphic statistics (descriptive) were used to illustrate frequent patterns in the students' response percentages. Concurring with the suggestions by De Vos *et al.* (2005:243) and Levin and Fox (2006:427) the researcher validated the data from the quantitative questionnaires through the use of a Chi-Square test or contingency analysis to facilitate the frequency comparison of the questions.

- **Pilot study**

As a brief and limited version of the anticipated research study and with the purpose of refining the procedures of the research project, a pilot study as a small-scale implementation of the design interviews and the questionnaires was conducted to ensure the quality of future data collection procedures (Oppenheim, 2009:47; Spatz & Kardas, 2008:364; Teddlie & Tashakkori, 2009:203). In preparation for the actual study, the researcher used a pilot study to test the selected procedures, and identify possible problems in the data collection protocols. Johnson and Christensen (2004:177) conclude that the researcher must always pilot test the questionnaire to find out whether it will operate effectively. In general, such a pilot test should be conducted with a minimum of 5 to 10 people similar to those who will participate in the actual study.

With this study of the management of student retention and success in the TVET College institutions, and prior to the actual collection of data for phase 2, the researcher tested the semi-structured interview schedule with the campus manager, lecturer, student support manager and student enrolment manager from one of the five research sites. One set of questionnaires was also distributed for completion by ten students enrolled for the national certificate vocational courses and ten students enrolled for the national technical education courses from one campus at Mopani South East TVET College for phase 1. Having participated in the pilot study, Mopani South East TVET College and its campus did not participate in the actual research project. However, data collected from the pilot study were also analysed for possible integration with the analysed data finally collected in pursuit of providing thorough answers to the formulated research questions. In line with the suggestions by De Vos (2000:183), interviewees (phase 2) and respondents (phase 1) were requested to comment on the wording of the questions, the sequence of the questions, possible redundant questions, and the inclusion of missing, but relevant questions. Based on the responses from the pilot study, all identified

unclear statements, mistakes, and certain patterns of reactions were considered for pruning the questionnaire to a manageable length and acceptable layout.

1.8.4 Data analysis

Bogdan and Biklen (2007:159) and Gibbs (2007:11) describe data analysis as the process of systematically searching and arranging the interview scripts, field notes, and other materials used in the collection of data to enable the researcher to deduce meaningful findings. Wimmer and Dominick (2003:111) agree when they say that collected data comes in a variety of forms such as notes written while observing in the field, interview transcripts, documents, diaries, and journals which the researcher must organize, analyse and make sense of.

- **Interviews**

Babbie and Benaquisto (2010:386) define data analysis with a qualitative approach as bringing order to a mass of data obtained from the participants through in-depth interviews, focus groups, archival documents, and other qualitative research techniques. The qualitative data analysis requires the researcher to code the data, divide the text into small phrases, sentences or paragraphs, and group the codes into themes (Creswell & Clarke, 2011:208; Babbie & Benaquisto, 2010:394). The researcher coded the data to bring order and coherence to it and formulated themes from the evidence received from the participants. The recorded data during the interviews through the use of an audiotape were transcribed verbatim. The data collected, notes written during interviews, information from student retention and attrition database (statistics), and related documents were analysed and classified according to the significant relationship and tendencies in relation to the research aims of this study.

- **Questionnaires**

According to Babbie and Benaquisto (2010:386) quantitative analysis is about converting social data into a numerical form involving one or more variable. Quantitative analysis is the numerical representation and manipulation of collected data for the purpose of describing and explaining the phenomena which that the data reflect. The data collected from the fulltime students through the questionnaire consisting of closed-ended questions and one open-ended question were analysed proceeding from descriptive analysis to inferential analysis. Descriptive statistics in the form of tables and graphs were used to interpret the data and descriptive measures such as frequencies and

percentages were used to quantify the findings from the students' responses. In line with Creswell and Clarke (2011:209) and Johnson and Christensen (2004:425), the researcher of this study on the management of student retention and success in the TVET College insitutions used figures to present quantitative results in visual form such as in graphs, bar or pie charts.

In this investigation, both the focused literature study findings and the findings from an analysis of the empirically collected data through the semi-structured interviews and questionnaires were used in determining aspects to be considered as guidelines on the effective management of student retention and success in the TVET College insitutions.

1.8.5 Ethical considerations

Research ethics is concerned with the attempt to formulate codes and principles of moral behaviour (May, 2010:59). The focus is the capacity for ethical inquiry to inform reasons for action in the conduct of the research project. Research ethics refers to the acceptable rules and good conduct for research, grounded in moral and political beliefs which are external to the research itself (Gomm, 2008:365). Furthermore, research ethics is not a matter of individual morality, but a communal discipline upheld by the communities of researchers who police the research conduct. The researcher did, throughout this study on student retention and achievement, consider the crucial factors for adhering to ethical considerations. These factors for answering to ethical conduct with research pertain to:

- respect the worthiness of the research project;
- acknowledge competency boundaries such as the expertise to carry on with the study;
- gain informed consent from participants;
- consider matters of benefit, cost, reciprocity, harm, risk, honesty, trust, privacy, confidentiality, and anonymity; and
- pursue research integrity and quality with ownership-taking of collecting data and drawing conclusions.

Welman *et al.* (2005:201) affirm that major aspects pertaining to ethical considerations relate to informed consent, the assured right of privacy, protection from harm, and the researcher's dedicated and concerned involvement in the research activities. Dedicated and concerned researcher involvement pertains to obtaining the necessary permission from the respondents for data collection,

assuring the participants that their identity will remain anonymous and that they will be indemnified against any physical and emotional harm, and that the researcher will guard against manipulating participants or treating them as objects. The researcher applied in writing for permission through the relevant authorities to collect data through conducting interviews, writing notes, student retention and attrition database (statistics), archival documents and questionnaires. This application letter thoroughly and honestly clarified the purpose of the investigation and the reasons the participants would be involved.

1.9 CLARIFICATION OF CENTRAL CONCEPTS

The most important concepts from the literature are defined and their meaning explained in the context of this study. This approach is divided into the concepts inherent in the title and concepts that are closely related to the research title.

1.9.1 Concepts inherent in the research title

1.9.1.1 Management

Hersey, Blanchard and Johnson (2008:2) define management as the act of influencing people and some resources to achieve meaningful results. For managers to be successful, they must achieve results valued by the people who have a stake in their organization's accomplishments. Grobler, Bothma, Brewer, Carey, Holland and Warnich (2011:57) support these views by emphasizing that management means creative problem solving, working within the paradigm and system, setting people and things in motion by means of methods and techniques, and using people as a means of doing things. In characterizing managerial work, most educators and other experts find it useful to conceptualize the activities performed by managers as reflected in the four managerial functions referred to as planning, organizing, leading and controlling (Moorhead & Griffin, 2008:7).

Pursuant to the TVET Colleges Act, 2006 (Department of Education, 2008:23), the TVET Colleges' principals are part of the senior management services of the Department of Education. Their terms and conditions of employment are set out in this Act, read in conjunction with the Public Service Act, 1994 and the Public Service Regulations 2001. The TVET Colleges consist of the head offices, from where the colleges' principals and administrative section operate and the campuses where the campus management activities and teaching and learning take place. This study sought to explore student retention management in the TVET Colleges, which encompasses various educational management

tasks, carried out by individuals with authoritative accountability in order to achieve meaningful results that are valued as accomplishments by the other stakeholders in the TVET College institutions.

1.9.1.2 Student retention

There are differing definitions of student retention and rates of retention across countries. In the USA, for example, student retention refers to the proportion of students who enrol and remain at a particular institution, while persistence rates refer to the proportion of students enrolled at one institution, transfer to another institution, and remain enrolled in another college (Crosling, Thomas & Heagney, 2008:2). Student retention in Australia also includes students who begin their first year of studies at a College and later transfer to another institution different to a College. These students are then not considered as dropouts from the college environment, but as retained students in the education system.

According to Moxley, Najor-Durack and Dumbrique (2001:37) student retention is the process of helping students to meet their needs so that they will persist in their education towards the achievement of the educational aims they value.

In this research project, student retention implies the state of keeping the students in a particular institution by reducing or eliminating those factors that disrupt the students' education and that ultimately result in their failure to achieve those educational aims they want to achieve. Comprehensively considered, and with reference to this study, student retention accounts for the retaining of all the students whose educational goals and objectives relate to either learning specific skills through a short course programme, or to obtain certain credits, or the achievement of a particular full qualification.

1.9.1.3 Achievement

Nicholls and Sutton (2001:3) understand achievement as pertaining to a student attending to assessment tasks with the eventual receiving of a grade. Achievement also implies that all students are being academically stretched to their full potential. The number of distinctions or the quality of the Grade 12 passes achieved by matric students represents the extent of achievement at high school level.

Achievement in this investigation will firstly mean the recognition granted to a student enrolled in TVET College after all the regarded learning outcomes have been successfully demonstrated.

Secondly, achievement will refer to the acquirement of the academic goal or objective by the student after meeting the necessary requirements.

1.9.1.4 Further Education and Training Colleges

The Further Education and Training Act, Act 16 of 2006 as amended defines TVET College education and training as all learning and training programmes leading to qualifications from levels two to four of the National Qualifications Framework (NQF) as contemplated in the South African Qualifications Authority Act, Act 58 of 1995. This implies that qualifications obtained within the Further Education and Training environment represent those qualifications higher than the initial qualification of the General Education and Training band (GET). This means qualifications higher than Grade 7 as the final grade of general education obtained in the formal school environment and representing Level 1 on the NQF. Further Education and Training (FET) also represents the educational achievements below higher education qualifications obtained after Grade 12 final examinations through formal schooling which is at Level 4 on the NQF band.

For the purpose of this investigation on student retention in the TVET College institutions, Further Education and Training refers to the tuition received at an educational institution which offers National Certificate Vocational (NCV) programmes, National Technical Education Diploma (NATED) courses and skills programmes comprising learning and training activities leading to qualifications higher than Level 1 and lower than Level 5 in accordance with the South African NQF and within the ambit of the Department of Higher Education and Training (DHET).

1.9.2 Concepts related to the title

1.9.2.1 Widening student participation

Scholars attest that the concept ‘widening student participation’ relates primarily to the enrolment of those students who are from the lower socio-economic groups, and those living with disabilities (Thomas & Quinn, 2006:85; & Bowes, Thomas, Peck & Nathwani, 2011:34). The socio-economic status focuses on parental occupation, parents’ educational attainment, income, or geographical location. The Department for Education and Skills (2006:3) concurs with the above views when it states that widening participation is a means of helping more people from historically-disadvantaged groups, particularly low socio-economic groups, to participate successfully in further education.

Stuart, Lido, Morgan, Solomon, and Ackroyd (2008:34) maintain that widening participation is associated with addressing patterns of under-representation of some students from different background in higher education institutions.

Within the context of this study, widening student participation was used broadly to refer to the enrolment of students from different socio-economic status and those students living with disabilities.

1.9.2.2 Student access

The Department of Education and Skills (2006:3) describes student access as increasing opportunities for people from historically-disadvantaged groups to attend higher education institutions and courses which offer the highest financial returns. In accordance with the Department of Education and Skills' contention, Altbach, Reisberg and Rumbley (2009:3) and Bowes, Thomas, Peck and Nathwani (2011:34) are of the opinion that providing equal access to higher education means overcoming the social and economic inequities within each nation and the corresponding disparities in order to provide opportunities for student to enrol in higher education institutions.

In this study, the concepts 'student access' and 'student enrolment' will be used interchangeably referring to students recruited from different backgrounds to study at the TVET Colleges with the intention to provide opportunities to those students who find it difficult to enrol in the Further Education and Training (TVET) College insitutions.

1.9.2.3 Student motivation

Some scholars describe motivation as the process whereby goal-directed activity is instigated and sustained (Björklund, 2001:4; Pintrich & Schunk, 2002:5; & Porter, Bigley & Steers, 2003:1). Implied in this study is that motivation refers to the desire to get good grades or hope to generally succeed in life, whether to satisfy the family or be admitted at the college or to get a job.

For the purpose of this study the concept 'motivation' implies the students' competitive drive to persist with the educational journey until they achieve the grades or qualifications.

1.9.2.4 Student persistence

Comings (2007:24) and King (2008:3) define student persistence as the continual pursuit of a student in a degree programme leading toward the completion of the programme and therefore being awarded a college degree in the student's field of study. Persistence and retention are concepts that are used interchangeably. Student persistence could start through self-study before the first episode of participation in a programme, and continues until a student meets his or her educational goals.

Consistent with the above definition, some scholars describe the concept 'persistence' as the enrolment headcount of any group of students compared with the actual number of students at a given point with the intention to measure the number of students who progress from one grade to the next until completion of their academic programme or obtaining their awards or graduating from an institution (Noel & Levitz, 2008:3; & Zeidenberg, Cho & Jenkins, 2010:17).

This study is concerned with the capacity of TVET Colleges to enhance student persistence and students' chances to complete their studies. It is worth noting that the researcher will interchangeably use the terms 'persistence' and 'retention' throughout this study.

1.9.2.5 Student attrition and dropout

Student attrition or student dropout may be specifically defined within a particular field of study. It is generally characterized as the departure from or delay in successful completion of a programme of requirements. The NAO (2007:19) describes the concept 'student attrition' as the failure to achieve some of the goals or objectives or the expectations by the student.

In his Student Integration Model, Tinto (1975) defines student attrition as a longitudinal process of interactions between the individual, the academic and social systems of the College during which a person's experiences in those systems continually modify his goals and institutional commitments in ways which lead to persistence and or to varying forms of dropout. Tinto's definition demonstrates how student attrition can involve many interrelated factors and studying those factors that lead to attrition can be a complex process. In a related definition, Hagedorn (2007:6) asserts that student attrition is the diminution in numbers of students resulting from lower student retention. Student dropout is defined in comparison to student achievement versus the original intent.

For purpose of this study, the concepts ‘student attrition’ and ‘student dropout’ refer to the period when students leave the College before achieving their academic goals.

1.9.2.6 The Department of Education

In the context of this study, the Department of Education (DoE) refers to the National Department of Education which came into existence after the democratic government restructured the 19 racially-arranged departments of education of the past apartheid regime. The concept also includes the administration of the nine Provincial Education Departments (PEDs).

1.9.2.7 The Department of Higher Education and Training

In 2009 the Department of Education was further restructured into two ministries, namely the Department of Higher Education and Training (DHET) which is responsible for institutions in the higher education and training band whilst the Department of Basic Education (DBE) which focuses on the school system.

In the current study, the Department of Higher Education and Training refers to the National Department accounting for higher education and training where the TVET Colleges belong. There are instances in this study where the researcher uses both the DHET and DoE with the intention to develop a common understanding of the educational processes involved in reshaping the TVET College system in response to South Africa’s economic needs.

1.10 ORGANISATION OF THE THESIS

The study is divided into eight chapters organized as outlined below:

Chapter 1 positions the study within the framework of its nature and extent. This chapter covers important aspects pertaining to an orientation to the study which relates to the research background, problem statement and research methodology.

Chapter 2 deals with an in-depth study of related literature to explore the existing theoretical information regarding widening student participation, increasing student access, and students’ decision-making process in further education institutions. The approach will be to depart from an

international perspective and end with a focus on the local situation. These discussions will be based on ecological systems theory as the theoretical framework underlying this study.

Chapter 3 comprehensively focuses on a literature review of the main predictors of student success in the TVET College institutions. This chapter will explore student retention and attainment trends and strategies in further education institutions taking place on a global scale to ensure student success. The approach will again be to depart from an international perspective on the topic of student retention with a final focus on the national position.

Chapter 4 deals with the research methodology and research design employed by this study on student retention and qualification completion management in the TVET College institutions. This chapter will outline the selection of sites and participants who were involved in collecting, processing and presenting data in an objective and honest manner. This will include the choice, use and justification of the methods and techniques used for data collection and data analysis so as to deduce relevant findings.

Chapter 5 provides the data analysis and research findings using different statistical test methods.

Chapter 6 focuses on the research findings collected from the TVET College staff members.

Chapter 7 discusses the research findings on data qualitatively collected

Chapter 8 presents the summary, conclusions, and recommendations based on both the literature study and the empirical investigation with reference to the management of student retention and success in the TVET College institutions. This chapter also indicates the aspects that encourage further investigation on the management of student retention and success within the TVET College system.

1.11 SUMMARY

The number of the students enrolled at entry levels in the Further Education and Training institutions are always higher than those who progress to the next levels or those who graduate. Many private colleges mushroomed with the intention to attract the highest number of disparate students who dropped out from public TVET Colleges and universities. The South African DHET expects the TVET Colleges to increase student intake and reach a specific target at a given time. The

constructiveness of student retention and success management in TVET Colleges is crucial for increasing student progression and success rates. Exploring the management of student retention and success within context forms the basis of this study on student retention and achievement relating to students at risk of dropping out from their studies before achieving their academic goals. Chapter 2 unpack the existing theories regarding widening student participation, and increasing student access in Further Education institutions.

CHAPTER 2

WIDENING STUDENT PARTICIPATION AND INCREASING STUDENT ACCESS IN POST-SCHOOL EDUCATION INSTITUTIONS

2.1 INTRODUCTION

Globally and locally, widening student participation and increasing student access in post-school set-ups are in continuous change. Technical and Vocational Education and Training Colleges and the community they serve are dependent on each other for survival. The public Technical and Vocational Education and Training (TVET) Colleges are the custodian of providing access to those who are in need of post-school qualifications in order to respond to the economic needs by producing graduates who are globally competent.

Worldwide there have been concerns expressed by both international bodies and national governments that there are strong economic reasons for increasing student access and widening the constituency that the post-school institutions serve by including those groups of students who have traditionally been excluded. These strands of thought are evident in key statements by some international organizations such as the European Commission (2001a; 2001b), the Council of Europe (CE) (2001), the United Nations Educational, Scientific and Cultural Organization (UNESCO) (1998a; 1998b), the Organization for Economic Co-operation and Development (OECD) (2001), and the International Labour Office (ILO) (2000).

In a sharp contrast, the drive towards widening participation and increasing student access, equity and social cohesion is a pure political goal where the changes in the South African post-school institutions after 1994 are a direct reflection of the political influence mediated by concerns for social justice rather than being the direct imposition of the neoliberal agendas that drove the Higher Education (HE) change in advanced industrial societies during the 1980s (Bundy, 2006:9; Lange, 2006:40-44; Rougaas, 2001:10; Singh, 2006:66). Before 1994, the South African Technical and Vocational Colleges - then called Technical Colleges - were located in the various Departments of Education (DoE) determined by the apartheid education system to serve different population groups according to their race and ethnicity. Subsequent to that, in 1995 the South African government began to overhaul the education and training system

inherited from the apartheid government by establishing the National Qualification Framework (NQF) that should enable those who completed their secondary school education to smoothly progress to higher education institutions (African National Congress, 1994:62; Department of Education, 2008:6; Eicker, Haseloff, & Lennartz, 2017).

Against the background of this scenario for widened student access, the related literature review in this chapter is structured into three interrelated parts. The first part discusses the application of Bronfenbrenner's ecological systems theory as the theoretical framework underlying this study, followed by the principles underpinning and the rationale behind widening student participation and increasing student access in the post-1994 South African Further Education and Training (FET) College environment, now called Technical and Vocational Education and Training (TVET) Colleges. The third fragment provides a brief discussion on the theoretical perspectives drawn from the international and national literature regarding factors that influence students to choose one post-school institution over the other, student recruitment, the selection and admission of students, and the history of student success rates in the TVET College institutions.

The next section focuses on the application of Bronfenbrenner's ecological systems theory and the widening of participation in and access to post-school institutions. These discussions are in preparation for a discussion of the main conditions determining student persistence and success in the TVET College institutions which will be dealt with in Chapter 3.

2.2 THE APPLICATION OF BRONFENBRENNER'S ECOLOGICAL SYSTEMS THEORY AS THEORETICAL FRAMEWORK

According to Bronfenbrenner's initial ecological theory (1979; 1989), the environment's main four types of layers, namely the microsystem, mesosystem, exosystem, and macrosystem, interact in complex ways and can both affect and be affected by the person's development. The ecology of human development is the scientific study of the progressive, mutual accommodation throughout the life course between an active, growing human being and the changing properties of the immediate settings in which the developing person lives (Bronfenbrenner, 1995:188). This human development process is affected by the relations between the settings and by the larger contexts in which the settings are embedded.

Considered together, the four systems represent the nested networks of interactions that reflect an individual's ecology which changes over time as an individual gets older or as certain systems such as families, peers, or academic institutions become more, or less, salient to an individual's development resulting in the fifth level called the chronosystem (Bronfenbrenner, 1995; Conway, 2007:7). These layers are interdependent and interwoven, and they all function cohesively such that an alteration of any part of the system impacts the system as a whole. The application of each of the system layers is described below.

2.2.1 Background and social psychological traits

The microsystem is defined as the pattern of activities, roles, and interpersonal relationships experienced by a developing person in a particular setting with particular physical and material features and containing other persons with distinctive characteristics of temperament, personality, and systems of belief (Bronfenbrenner, 1995:227; 2005; Johnson, 2014:182-189). The implication is that this layer forms a set of structures with which a person has direct contact, and the influences between the developing person and these structures are bidirectional. The home and classroom facilities are the most common examples of student microsystems where students are socialized and educated as they interact with and learn from both adults and peers (Strayhorn, 2010:177-180). The student influences and is influenced by the microsystem. Extending this theory about human development to organizational development and an individual post-school institution such as a TVET College implies that the microsystem of these institutions comprise of the students, parents and family members, administration, educators, and the surrounding community, including the academic support programmes, financial support, extra-mural activities, and youth organizations.

2.2.2 Family and educational activity deviation

Bronfenbrenner's mesosystem refers to the number and quality of linkages between children's microsystems (Bronfenbrenner, 1995:227; 2005:5; Tatum, 2009:55). Students' development and educational activities are supported best when there are frequent and strong linkages among their microsystems such as the family-post-school-community partnerships. Just as the direction of influence between the post-school institution and each structure within the microsystem is bi-directional, the mesosystem involves bidirectional influences between various structures which are found in the interactions and dynamics between students and parents (Conway, 2007:7; Strayhorn, 2010:179). Parental expectations regarding the academic performance and extra-curricular successes

of their children can often create dynamism that directly and indirectly impacts the atmosphere and climate of the TVET institution. The unreasonably high expectations and low tolerance for failure can create dynamism between parent and child that is characterized by tension and fear (Johnson, 2014:182-189).

Hagedorn (2007:6), agreeing with Tinto's views, acknowledges that students enter college with various individual characteristics such as those which are related to family background, individual attributes, and pre-college schooling experiences. In line with this view, Kwai (2009:27) describes family background characteristics as family socioeconomic status, parental educational level, and parental expectations. In addition, Tinto (in Kwai, 2009:27) points out that individual attributes include students' academic ability, race and gender, whereas pre-college schooling experiences included the characteristics of the student's high school academic achievement, and social attainments.

This dynamism impacts the TVET College education in various direct and indirect ways, including student behaviour and performance in the classroom resulting in unrealistic pressures for student success placed on College personnel by the parents and sponsors. In order to safeguard students from unnecessary pressure, College personnel can attempt to shield the students from such parental pressures by restricting the amount of information that is publicly communicated regarding student achievement.

2.2.3 Institutional policies and practices

In contrast, the exosystem refers to social systems in which students do not directly participate but which influence student action like when the post-school institution develops and implements policies and procedures that guide student conduct yet students have little or no role in establishing these policies (Strayhorn, 2010:177-189). The exosystem represents the larger social system that encompasses events, contingencies, decisions, and policies over which the developing person has no influence. The exosystem thus exerts a unidirectional influence that directly or indirectly impacts the developing person (Tatum, 2009:55). The government establishes policies and programmes or qualifications that either benefit or harm the students such as some state regulations, some local economic decisions, and some government mandates. For instance, the current mix of programmes and qualifications offered by TVET Colleges is complex to easily administer, and difficult for students and parents to comprehend during the registration period (OECD, 2014).

2.2.4 Responsiveness to the cultural environment

The ecological layer having the most external impact is the macrosystem, which entails the culture, attitudes and ideologies in the society in which the individual lives. Bronfenbrenner (2005:81) describes the macrosystem as a societal blueprint for a particular culture or subculture whereby each culture establishes values and beliefs that govern the priorities of all the other noted ecological systems. In line with this view, Chang (2008:43) emphasises that this culture, subculture, or broad social context consists of the overarching pattern of values, belief systems, lifestyles, opportunities, customs, and resources embedded therein. The South African society functions under a democratic style of government and operates as a capitalist society where the people elect individuals to represent their views in parliament and, instead of allowing the government total control over the country's economy, the country relies on businesses to produce goods and compete for customers in the free market. Although the South Africans share the values of democracy and capitalism, people also come from different geographical, religious, and cultural backgrounds meaning that nested within the South African overarching macrosystem are different and distinct subcultures representing different macrosystems. The macrosystem of a particular TVET College is embodied not only in the cultural, political, social, and economic climate of the local community, but also in that of the nation as a whole.

2.2.5 Time-based developmental changes

Bronfenbrenner added the chronosystem to the original model acknowledging that, like physical ecologies, human ecologies change over time (Strayhorn, 2010:179). The chronosystem represents a time-based dimension that influences the operation of all levels of the ecological systems that can refer to both the short term and the long term time dimensions of the individual over the course of a lifespan, as well as the socio-historical time dimension of the macrosystem in which the individual lives (Bronfenbrenner, 1995:619-647). The chronosystem of an individual post-school institution may be represented by the continuous developmental changes that occur in its student body, teaching staff, and curricular choices.

The concept of the chronosystem, a late addition to Bronfenbrenner's ecological theory, is particularly pertinent to this study, as it includes temporal patterns and long term stress in an individual's environment such as persistent poverty which can have a particularly profound impact and effect on human development and human persistence (Conway, 2007:7).

The researcher is of the view that the Bronfenbrenner's ecological systems theory brings out the general and in-depth understanding of what widening student participation in and increasing student access to the TVET College education entails, and simultaneously contributes to the knowledge base of relevant stakeholders regarding the subject. The next section focuses on the principles underpinning widening student participation and increasing student access in post-school institutions.

2.3 THE PRINCIPLES UNDERPINNING WIDENING PARTICIPATION IN AND INCREASING ACCESS TO POST-SCHOOL EDUCATION

Multiple social disadvantages can influence the initial education negatively and, subsequently, can hamper participation in other forms of learning in post-school institutions. The family size, occupational status, parental income and educational background in the Further Education environment are particularly influential to participation in academic activities (Gorard, Smith, May, Thomas, Adnett, & Slack, 2006:109). Inequalities with regard to participation in the South African Technical and Vocation Education insitutions remain prevalent throughout the life course of the student and pertain firstly to the kind of subject choices the student makes. These inequalities with regard to students who enrol at the same institution include student age differences, differing socio-economic backgrounds, gender differences, ethnicity variances, difficulties with English as medium of instruction, and differences relating to the quality of education received at the type of school students attended. Inequalities also pertain to health and disability variances, some students having learning difficulties, some disintegrated family structures, and differing religious backgrounds of students enrolled at the same institution (Bowes, Thomas, Peck, & Nathwani, 2013:33-40).

Studies conducted on widening student participation and increasing access in post-school institutions in South Africa revealed that a unitary higher education system should be based on increased participation, greater responsiveness and increased cooperation and partnerships. This, however, will necessitate changes in curricula and qualifications and will demand a more cost-effective management of institutions (DoE, 1997; Mabokela, 2001; NCHE, 1996). In this regard the post-school transformation findings presented the vision of a transformed higher education system as related to guidance by the principles of equity and redress, democracy, development, quality, effectiveness and efficiency, academic freedom, institutional autonomy and public accountability (Ntshoe, 2004; Taylor, 2004; Van Wyk, 2003). On the pinnacle priorities of the South African Department of Higher Education and Training (DHET) is the elimination of any form of

discrimination and inequality in educational institutions through the development of a culture of human rights and democracy that will result in widening student participation in and increasing student access to the education system (DHET, 2012:8; Redmond, 2017). Quantum progress in addressing discriminatory practices, such as, for example redressing racial and gender imbalances in student populations in post-school institutions, has been made since 1994. However, discrimination on the basis of social class and disability remains pervasive in South African Further Education institutions.

In order to understand what student retention and achievement should mean for the TVET Colleges, the researcher found it appropriate to explore the reasons for and the characteristics of widening student participation and increasing student access in post-school institutions specifically as they pertain to technical and vocational provisioning within the post-school education and training institutions.

2.3.1 The perspective on widening student participation

The thrust to widen student participation and increase access to post-school education is associated with the number of themes within the larger banner of lifelong learning (Osborne, 2003:48). Such themes include the economic imperatives created by global competition, technological changes and the challenge of the knowledge economy. The demands of these economic imperatives impact on individual responsibilities and self-improvement, employability, and the flexibility of institutions to accommodate individual participant needs within the parameter of social inclusion (Osborne, 2003:48). Although the measures of socio-economic status vary, the term of widening participation relates primarily to assisting more people from historically-disadvantaged groups to participate successfully in post-school education (Department for Education and Skills, 2006a:3; Thomas & Quinn, 2006:85). The enrolment of students from lower socio-economic status (SES) groups as these SES groups are determined by parental occupation, educational attainment, income, and geographical location, and the enrolment of students living with disabilities has in the last few years become a central concern for the post-school environment worldwide.

In response to the worldwide growing pressure and trend to increase access to the post-school education and training institutions, Further Education institutions (FEI) have started to accept a large number of students from different backgrounds with different expectations. However, this trend of increased access resulted in FEIs finding that some of the enrolled students have needs and critical

expectations from the post-school education environment which differ from those needs they experienced during their school days (Eicker, Haseloff, & Lennartz, 2017). These differing needs with post-school education included general needs pertaining to earning a living earning and daily survival (Bryson, 2004; Lea, Stephenson & Troy, 2003). The mismatch between the institutional and student expectations due to students' needs for earning a living earning resulted in students being unavailable to participate fully in post-school institutional life relating to mural activities and committed engagement in academic involvement (James, 2002:72). Students who became more interested in other activities outside the campus environment, such as working in the paid employment environment, started to demand more provisioning-related choices vis-à-vis flexible delivery modes, flexible assessment options, reduced and flexible time spent on campus, and more lenient programmes of study to accommodate formal working hours.

Increasing student access in the South African post-school context is aimed at increasing the competent workforce and improving economic prosperity as a way of addressing economic imbalances and the patterns of under-representation in the Higher Education institutions (DHET, 2010:24; Jones, 2008:146). This vision demands that TVET Colleges should offer qualifications and programmes that are relevant to new economic demands and produce competent graduates who are employable and those who contribute to the country's socio-economic practices in a functional way (Bowl, 2012:3). These functional provisioning of the TVET Colleges include that they firstly offer the opportunities to work in partnership with other institutions and industries to support the progression of both younger and older people who would not have considered post-school education before. Secondly, the lecturers of the TVET Colleges should be employees who are key sources of information, advice and guidance regarding progression routes for technical and vocational qualifications, and regarding life-skills for work-based students. Thirdly, the TVET College environment should utilise their potential of bridging the transition to higher education study. In order to realise these three aims of functional provisioning, the South African TVET Colleges and employers are expected to establish functional partnerships that can promote and play important roles in the formation of responsive programme offerings. Responsive programme offerings should engender a curriculum that responds to particular requests from Environment Education and Training Authorities (SETAs), employers and government to meet specific development goals (National Planning Commission, 2018). The differentiated TVET College system should be able to develop flexible programme delivery modes that afford employees the opportunity to attend at different time periods.

2.3.2 The perspective on increasing student access

Increased and fair access means making it possible for more individuals to enrol and it also connotes increasing opportunities for people from historically-disadvantaged groups to attend Further Education institutions and choose courses which offer the highest financial returns (Altbach, Reisberg & Rumbley, 2009:39; NAO, 2001:1).

Student participation rates in the TVET College institutions remains low estimated at 3.8% to 8% (DHET, 2009:11; 2018). The introduction of the national norms and standards policy for funding the TVET Colleges aims to ensure that TVET Colleges are accessible to economically active youth and adults outside of the school system who wish to improve their skills or gain access to better job opportunities (DHET, 2019; Eicker, Haseloff, & Lennartz, 2017). Increasing participation in the higher education and training institutions is an indicator of an increasingly competent workforce and growing economic prosperity of that country (Cook, 2009:12). The TVET Colleges are expected to be in a position to provide different options for students ranging from those who intend studying full-time or part-time, to those who are interested in apprenticeships, attending the college for a few months per year on various skills or occupational programmes.

Truly providing equal access to post-school institutions means overcoming the social and economic inequities within each nation and the corresponding disparities that result from these inequities. Despite the initiatives by government, higher education institutions, foreign donors and local civil societies to improve student access and widen participation in post-school education, the many policy initiatives for broader post-school participation have not benefited all the environments of society equally as only limited progress has been made compared to what was optimistically envisioned (Jones, Coetzee, Bailey, & Wickham, 2008:19).

One of the cornerstones in the transformation of the South African post-school system since 1994 is broadening student access to the post-school institutions. The TVET College education is a crucial part of government's strategy for raising the technical and vocational standards in order to combat social exclusion, unemployment and skills shortages. Despite the fact that the South African TVET College enrolments have been increasing rapidly over the past few years, the expected student access target is still to be reached. The DHET expects the TVET Colleges to play a key role in achieving the national learning targets such as that the head count enrolment increases from 358,393 enrolments to

enrolments in 2010 to 737,880 in 2016 which should realise an enrolment expectation of 2.5 million students by 2030 (DHET, 2013:12; 2018).

In a quest to understand increasing student access, this study is concerned with the TVET Colleges' preparedness to retain the above targeted number of students and ensure that these students achieve their qualifications so as to become the source of South African skills development endeavours in addressing the country's acute skills shortages and preparing student participants adequately for the world of work. There exists an alarming picture of institution inability with regard to the attrition of students from the school system because of the fact that only a significantly small proportion of students obtain tertiary entry requirements so as to realistically qualify to further their studies in the Further Education institutions. At the same time the country needs to increase the number of candidates for entry into post-school education programmes (Boinamo, 2007; Pandor, 2007; DHET, 2018). Furthermore, for those students who do achieve the required grades to gain entry, prospects for success at the post-school level are low due to life survival struggles whereas a high percentage of the students who should rather have enrolled in the TVET College institutions obtain tertiary entry grades from the secondary schools allowing them to enrol for higher education study.

The TVET Colleges can enrol only a limited number of applicants as determined by the individual College's selection criteria, minimum pass rate requirements, and the availability of space with related didactic resources. Providing TVET College education to all environments throughout the nation's population means confronting social inequalities deeply rooted in history, culture, and economic structure that influence an individual's ability to compete (Selesho, 2014:137). Geographical and unequal distribution of wealth and resources contribute to the disadvantage of certain population groups such as that student participation tends to be below the national average for populations living in remote or rural areas and for indigenous groups. It can therefore be concluded that, although TVET Colleges differ in terms of quality of provisioning, and diversity of student enrolment, they are all equally held accountable to recruit and increase the numbers of students in order to meet the enrolment target of 2.5 million students anticipated for the 2030 academic year.

2.4 THE RATIONALE BEHIND WIDENING STUDENT PARTICIPATION IN AND INCREASING STUDENT ACCESS TO MERGED TVET COLLEGES

Widening participation in and increasing access to FEIs are seen as salient features for an increasingly competent workforce and for growing economic prosperity in any country (Cook, 2009:12). Post-school education within a globalisation context, the demand for widening participation, changes in

technology affecting teaching and learning, as well as the skills sought by the graduates of FEIs demand post-school institutions to be relevant and accountable with their teaching and research provisioning. Further, the management approaches developed in the corporate environment and significant increases in the numbers of students enrolled in corporate-related courses form part of the important trends considered by policy makers.

The South African post-school institution mergers which commenced in 2002 kept many TVET Colleges inwardly focused in trying to address the challenges of integrating human resource processes, organizational cultures and operating over geographically dispersed sites (Bundy, 2006:15). Studies conducted on the policy changes for the South African post-school environment as from 1995 found that widening participation has been influenced by international trends shaping post-school institutions from developed and developing countries (Eckel, 2001:103; Jamieson & Naidoo, 2007:362-371; Ramose, 2003:137-143; Van Wyk, 2005). It is against this backdrop of changes in the economic environment and historical developments in the post-school education environment of South Africa that the TVET College system had to emerge in order to play a meaningful role in serving the South African economic needs. Main challenges faced by the TVET College institutions include the following (DoE, 2008:12):

- low student participation and poor student access in vocational programmes,
- low funding of the TVET College environment,
- lack of relevance and response to economic needs,
- low graduation and throughput rates arising out of high failure rates and low retention rates,
- low technically-skilled graduates, and
- poor public perception and lack of environment identity

The South African generation of the second decade of the 21st century lives in times when the White Paper 4 on a programme for the transformation of the Further Education and Training envisions a modern vibrant post-school TVET College education that constitutes a national, coordinated post-school system that builds a foundation for lifelong learning and which is responsive to the needs of the 21st century (DoE, 1998). Within this equation lies the suggestion that a revolutionary restructuring of the TVET education system is aimed at a continuous response to the country's economic needs. The Constitution of the Republic of South Africa (1996a) guarantees access to basic education for all, with the provision that everyone

has the right to basic education. Part of this agreement is the main legal framework underpinning the government's initiatives to increase student participation and access to the post-school education system. However, accessible provision for assisting people to improve on the learning they have missed out on during their school going age is little (DHET, 2012:9). There are few alternatives for those who seek vocational and/or occupational qualifications.

Also, the financial resources to allow most secondary school leavers, including matriculants, to successfully enter post-school provisioning are inadequate. Currently, approximately three times as many students enter universities each year as compared to students enrolled in TVET Colleges (DHET, 2012). This inverted pyramid is a major problem for the country's system of education and results in a workforce with serious shortages of artisanal and other mid-level skills. For that reason, the DHET aims that, over the next 20 years, ending in 2030, there will be a dramatic increase of the number of students enrolling in the TVET Colleges in order to address the acute skills shortages of the country's economy, and the learning needs of individuals (DHET, 2012:28; 2013; Kraak, 2012:33). This increase in student intake includes students enrolling in the general vocational, apprenticeship, artisanal, and other occupational programmes.

2.5 DETERMINANTS OF POST-SCHOOL INSTITUTIONAL CHOICE

The beginning of each academic year is marked by graduating secondary school students struggling with the decision about whether to enrol for College qualifications or not and, if so, which FE College to attend (Kirp, 2003:118). At the same time, the post-school institutions recruit prospective students who are believed to be a good match for their institutional programmes. Some of the would-be Further Education College (FEC) students have mixed beliefs about the FEC access where some students think that they are not meant for the College education even though they show good academic performance in their secondary school results.

There are also students who do not consider all of the options open to them, whilst other students are not familiar with the complicated process of applying for College education (Kinzie, Palmer, Hayek, Hossler, Jacob, & Cummings, 2004). These mixed uncertainties lead some students to choosing a particular College that is not a good match for them and they very often drop-out during their first year of study, which results in a loss of talent and a waste of resources. The mismatch between the selected students and courses chosen by the students has an impact on students' later performance.

As alluded to in section 2.3, factors such as the parental education levels and involvement in students' academic activities, socio-economic status, student and parent expectations, ethnicity, gender, and residency influence the students to choose one institution over the other (Astin & Oseguera, 2005; Charles, Roscigno, & Torres, 2007:329-352; Perna & Titus, 2005; Soutar & Turner, 2002). It is imperative for the post-school environment to understand and consider the multiple factors that impact the FEC choice when establishing student retention and achievement frameworks. These factors pertain to matters such as the courses and programmes students intend to enrol for, academic reputation, location and ranking of the educational institution, the quality of academic personnel, friends who attended the same post-school institution, family suggestions and advice, and costs for the student. The concern in this regard is to determine what makes some prospective students choose and enrol in a particular TVET College over the other. The institutional factors confirmed to affect students' choice of the specific TVET institution include factors relating to location, academic qualifications and programme match, TVET College reputation, educational facilities, cost of the programme and time to complete all the different courses, availability of financial aid, and career and employment opportunities.

2.5.1 Post-school institutional location

Numerous studies consistently revealed that the post-school institution's location is a major factor for the potential student's decision to apply, enrol and attend the specific College which is at close proximity to the student's home (DfES, 2006b:51-53; Ming, 2010:53; Tinto, 2000:87; 2010:60). For convenience and accessibility, the low-cost, nearby post-school institution is also an important stimulator of students' decision to further their studies.

Given the popularity of some cities or towns because of their infrastructure and accessibility as compared to the rural areas, prospective students give first preference to the FEIs in towns (Brown, 2010; Hesel, 2004; Kuh, 2009; Magolda, 2000). The employment opportunities in and around cities also attract a large number of students to apply for admission in academic institutions around such affluent areas (DoE, 2007; Gardiner, 2008:13; Kuh, 2009; Manning, 2000). The 50 public TVET Colleges in South African are spread throughout the country where some are located in the cities and others are in the rural areas. The geographical location of these TVET institutions becomes a major factor in student decisions to apply at and enrol in a particular academic institution.

The TVET College marketing and enrolment personnel must consider the proximity to the College campus as they recruit their would-be students since it also affects class attendance rates. Students who live closer to the campus where they have enrolled, even if they may have registered at the campuses which are located far from their homes, are likely to attend classes regularly until completion (Field, 2018). Therefore, the FEIs in rural areas are expected to work harder in order to attract more applicants if they are to increase their student enrolments. The TVET Colleges' recruitment personnel must also ensure that there is adequate transport, accommodation, and other resources related to teaching and learning in order to minimize student withdrawals.

2.5.2 Academic qualification and programme match

The availability of the courses and programmes that are relevant and offer employment opportunities is one of the important attributes for first year students in choosing a particular post-school institution (Ming, 2010:53; Yusof, Ahmad, Tajudin, & Ravindran, 2008:27-40). There are students who leave the FE institutions after realizing that the qualification they have enrolled for does not meet their expectations or that they have simply enrolled for the wrong course (NAO, 2007; Quinn, Thomas, Slack, Casey, Thexton, & Noble, 2005:134). Even some students who selected relevant qualifications as they enrolled at FECs through the acceptable institutional selection and admission processes raised concerns about the academic programme mismatch (Bosch *et al.*, 2008; Kim *et al.*, 2010; Kuh *et al.*, 2005; Yorke & Longden, 2008:47).

The range of programmes of study and the flexibility of qualification options are important factors for students to choose FE institutions. For Ismail (2009:132) academic qualification match is an important and recognized external factor that influences students when they choose the FE institution for enrolment. Increased participation rates in the post-school education institutions do not open the same opportunities equally to all (Piquet, 2006:134). The small percentage of the age cohort of students who enrol in the FEIs which have low pass percentages and/or the basic entry credentials of these students to the post-school institutions are at the lower levels.

The current qualification framework of the South African Technical and Vocational system poses a number of challenges such as the confusing mixture of overlapping and competing programmes and qualifications, inadequately developed courses and programmes for adults, and limited post-school vocational qualifications (OECD, 2014:38). The TVET College applicants can choose to enrol for qualifications from the three different programmes, namely, the National Certificate Vocational

(NCV) programme which takes one year to proceed to the next grade, the National Technical Education (NATED) known as the report 191 programme in Engineering studies which is a three-month course, and lastly the report 191 programme in Business Studies which is a semester course that takes six months to complete (OECD, 2010; 2014:38). Those who enrolled for the NATED programme are required to demonstrate 2000 hours of experience to obtain their National Diploma. Enrolment personnel should determine applicants' expectations before they enrol and advise prospective students on appropriate course possibilities. The registration officials are expected to provide thorough guidance and assistance to the new applicants when selecting their courses so that the selected programme offerings respond to the country's skills demands and individual students' aptitudes and interests.

2.5.3 Reputation of Technical and Vocational Education and Training Colleges

The manner in which people clearly understand what they are there to do and how well these people are seen to be doing in whatever is being done are key reputational aspects in any organization (Foster, 2005:38). A cohort of scholars agreed that the reputation and image of a learning institution is an influential factor which potential students consider when choosing and selecting a College where they enrol and study (De Jager & Du Plooy, 2006:13; Donalson & McNicholas, 2004:247; Ming, 2010:53; Keling, 2006:46-64; Keling, Krishnan, and Nurtjahja, 2007:9).

Studies conducted in China, Canada and Australia on student choice of higher education institutions revealed that students are motivated by factors relating to the affordability and prestige of qualifications offered at a location approachable to them (Bangser, 2008:1; Drew & Michael, 2006:781-800; Hannukainen, 2008:42). Students also value the support services such as library services and non-academic assistance as determinants for their choice of a higher education institution. A factor added to South African students' choice of a post-school institution is admission requirements (De Jager & Du Plooy, 2006:10-16).

Nationally and locally, the FECs are expected to be the dynamic learning environments playing an important role in delivering the key government priorities and strategies by contributing to economic development and social cohesion (DHET, 2012:21; Foster, 2005:38). Although the TVET College environment has done a significant amount of work in recent years to promote their successes and improvements in educational achievement, these institutions are still not sufficiently well understood and valued because of their reputation and profile (DoE, 2008:28).

Instead of the TVET Colleges enjoying a golden age as compared to the secondary schools and universities, the public and particularly the potential employers' perception is that the TVET Colleges are not delivering what is needed by the industry which leads to a negative perception and lack of productive engagement with the College stakeholders (DoE, 2008; Foster, 2005). Some of the TVET Colleges are characterized by obsolete and inappropriate buildings, outdated equipment and technology, and sometimes a lack of up to date knowledge and experience amongst staff which creates an unwelcoming atmosphere within the TVET College education system (Foster, 2005).

There are high expectations from the TVET Colleges to provide the necessary skills for entry to the labour market and to support a successful career path since it is a central component of South Africa's skills development system (DHET, 2012:20; Eichhorst, 2012:153, OECD, 2010a; 2010b). The TVET Colleges are expected to become institutions of choice for young school leavers, and people who are not employed, not in education and not in training (NEET) since they offer technical and vocational programmes as well as providing academic and theoretical education for apprentices.

One important additional caveat to the post-school institutions is to promote and protect the reputation and image of the TVET Colleges. For that reason, the DHET (2012:21) ascertains that the TVET institutions will have sufficient up-to-date equipment and other facilities where these resources are budgeted for and procured on an on-going basis for the College as a whole, and learning and teaching facilities such class rooms, laboratories and workshops are equipped. In addition to recruitment and admission personnel's accurate distribution of information when dealing with the potential students, they should regularly provide relevant feedback to the stakeholders in order to improve client confidence in the community and the prospective students. The TVET Colleges must find a way of saying who they are and what they do in order to build a positive reputation and attract support and resources from potential stakeholders.

2.5.4 Educational facilities

The post-school institutional provisioning of training inevitably requires the sharing of facilities and capital equipment across the local learning network for the benefit and convenience of learners (DfES, 2006b:54; Kuh, 2009). Therefore, the post-school institutions need to develop innovative strategies that enable them to use technology to develop the potential of e-learning, blended learning and learning in the community. There is much scope for the use of e-learning to enhance students'

experience and FEIs must invest in the technology for on-line learning if they are to compete with private environment providers (DfES, 2006b:54; Tinto, 2005:89-97). The effective use of e-learning is also important for improving the reputation of FECs with employers which partner with Colleges as part of the strategy for the FECs to become the institution of choice.

Infrastructure and educational facilities such as modern classrooms, laboratories, libraries, and well-equipped workshop venues form part of the significant predictors which influence student choice for College tuition (Foster, 2005:66; Ming, 2010:53). For that reason, some prospective students are reluctant to enter unwelcoming physical environments, especially those that remind them of the schools they come from. Also the quality of the facilities has a direct bearing on the reputation and image of the FECs to students, prospective employers of the College graduates and the community, whereas poor perceptions about the FECs stem from their run-down appearances (Foster, 2005; Ming, 2010).

In summary, student choice of post-school institutions in South Africa is affected by factors such as the physical conditions of the post-school institutions, employment possibilities of the qualifications offered, course content, student experiences, sporting aspects and financial considerations as the main determinants influencing TVET College selection (Bonnema & Van der Waldt, 2008:316; DoE, 2007; Gardiner, 2008:13). There are still TVET institutions based in the rural areas which are difficult to reach, their physical conditions are inadequate, and student performance in comparison to institutions elsewhere is weak. Although there have been significant infrastructural improvements since 1994, the National Education Infrastructure Management System found that there are rural educational institutions which are still without clean running water, electricity, libraries, laboratories and computers (DfES, 2006b:51; Foster, 2005:67).

2.5.5 Cost and time

The cost of post-school institutions acts as a deterrent for potential students and a barrier to student access to FEIs in several ways. Student perception, for example, that the total study fee outweighs the benefits of a particular educational choice inhibits student choice. Cost-related factors such as cash constraints, where an individual student cannot obtain sufficient funds to cover the immediate cost of education, and debt aversion or a reluctance to incur debt in order to access education hamper enrolment possibilities (Joseph & Joseph, 2000; Usher, 2006:10). The financing schemes for students make good policies but they are not always embraced by the students whom they are designed to help.

For that reason, students' tuition costs persist to remain an inhibiting factor for enrolment, especially also with regard to post-school institutions that are privatized and where the total price constraint weighs more heavily on students from poorer backgrounds.

Even in cases where the post-school institutions refrain from charging excessive tuition or enrolment fees, students bear the indirect costs such as accommodation and transport expenses (Amagir, Wilschut, & Groot, 2018; DHET, 2018; Yang & Grauer, 2016). For students who reside in the rural or remote areas which are further away from academic post-school institutions, accessing the TVET institutions of their choice at times requires additional fees for relocating to places nearer (Baloyi, 2004:62; Usher, 2006:7). Different countries offer scholarships, grants and loan programmes based on the availability of funds for financial schemes. These offerings are lower than the net cost necessary for pursuing post-school studies in order to mediate the cost as an obstacle to student access to FEIs. These programmes demonstrate some degree of success and play a pivotal role in student persistence, but they cannot remove economic barriers, and desperate poverty faced by different communities pressurize the youth from the low income groups to drop-out from the educational institutions in search of jobs (Bound, Lovenheim, & Turner, 2010:129-157). For that reason, the possibility for such students to further their College studies dwindles as the tuition costs increase whilst the availability of need-based financial aid decreases (College Board, 2005a; 2006; Ming, 2010:55). The cost, course duration and location of the post-school institutions are important stimulators for students' decisions to select and further their studies at a particular College.

The funding model for the South African TVET College education should aim at growing and diversifying the College environment where the funding norms and standards provide education largely for students from low income backgrounds (DoE, 2007; DHET, 2012). There is a need for differentiating between TVET institutions located in rural areas and those in urban areas, and between Colleges at various stages of development. The accurate method of determining the needy students is also a necessity in order to eliminate allocating financial assistance to un-deserving applicants whilst the TVET Colleges are responsive to the economic needs by offering more skills and occupational programmes that can be completed within a shorter period.

2.5.6 The availability of financial aid

The public revenue must be accounted for by the further education institutional expenses worldwide and at times the overall cost pressure for students' financial assistance is growing at a rate beyond

which the available finance aid streams cannot keep pace in most countries (Jenkins & Rodríguez, 2013:188; Usher, 2006:10). For Philip *et al.* (2009:67) financing the post-school education in the first decade of the 21st century has been dominated by two phenomena: firstly, the post-school education is increasingly important to the economies, individuals, and societies striving for democracy and social justice. Secondly, the cost of education in the FEIs has risen significantly. Studies conducted on the availability of financial assistance to students reveal that finances are a make-it or break-it issue for students from the low-income backgrounds, particularly the previously disadvantaged students. For them finances determine whether they may stay or leave the FEI, with the result that these students are less likely to earn a qualification than those who are from higher income families (Swail, 2004:22; Thayer, 2000:4; Thomas, Quinn, Slack & Casey, 2002:5). A strong financial aid post-school institution is regarded as a sign of a well-oiled FEC, where the latitude is given to students who have special financial needs so that they can pursue their studies (College Board, 2005b; Mills 2004; Price *et al.*, 2003; Yusof *et al.*, 2008:27).

Student retention serves as an important measure of the institution's effectiveness (Roman, 2007:10). Post-school institutions are increasingly held accountable by government for their students' dropout rate because student retention and student enrolments translate into the amounts of revenue, either from the fulltime equivalent reimbursement or tuition and fees (DHET, 2018, 2019; Yang & Grauer, 2016). The effectiveness of post-school tuition is associated with the number of times the students may repeat grades, subjects, learning programmes and whole qualifications in, for example, the TVET Colleges environment. Ineffective post-school institutions are characterized by low student retention rates, high repetition rates, and high student dropout impacting negatively on the government funding (Amagir, Wilschut, & Groot, 2018; DHET, 2019). The implications of students leaving the college without obtaining a qualification pertain to costs associated with unrealized tuition, forfeited fees, and lost alumni contributions. Implications of student dropout for the society at large pertain to less employment opportunities, leaving the society with a smaller pool of skilled labourers to choose from (Scott, Spielmans, & Julka, 2004:67; DHET, 2018).

The financial assistance offered by the post-school institution to students is considered one of the other important attributes influencing the selection of a particular academic institution over the other (Ismail, 2009:17; Yusof *et al.*, 2008:33). Regardless of the heavy financial burdens on some FEC students, the primary reason that students are not successful, regardless of successful application, is the unpreparedness for academic engagement rather than the lack of sufficient finances (Adelman, 2006; College Board, 2006; Swail, 2014:19). In fact, students who correctly choose their courses in

a particular College according to their interests and abilities are more likely to persist and complete their qualifications than those students who are unprepared, irrespective of ancillary issues such as the financial need of a prepared student. The rigorous course work serves as a proxy for other important criteria such as study skills, time management and organizational skills (Burrus, Jackson, Holtzman, Roberts, & Mandigo, 2013:25; Kerka, 2007:58). Students at post-school institutions are expected to know how to learn and how to manage their time, develop higher order thinking skills and be able to work in isolation and in groups. While some students drop-out of the FEIs because of financial unaffordability, there are many more students who drop-out because they do not have the academic-related skills to succeed (Swail, 2014:23). The daunting deficiencies in student preparations and learning readiness faced the FEIs, especially those Colleges which are without clear selection and admission requirements.

Widening student participation in the post-school institutions which is driven by the need for demographic-related equity of access and the higher percentage of students who desire to further their studies is exhausting the finances for student tuition and teaching and learning resources (CHE, 2010:206; Steyn & De Villiers, 2006:164-5). What is required is more than the available funding for the institutional costs to translate educational opportunities into sound qualifications, marketable skills and a changed life path for the typical South African youth from low SES environments (DoE, 2007; Pandor, 2007).

Realizing that many students from the lower socio-economic backgrounds attend the public TVET Colleges in the Limpopo Province and that financial aid is salient to student retention and achievement, the availability of financial assistance is one of the variables for this study. The expansion of student enrolments presents eminent challenges for the TVET College education where the expectations are to provide access to free or highly subsidized tertiary education. The government tax revenues are not keeping pace with the rapidly rising costs for students to further their TVET College studies whilst post-school education is increasingly viewed as a major source of economic development in South Africa.

2.5.7 Career choice and employment opportunities

Education is universally recognized as the answer to the socio-economic problems throughout the world. Individuals, organizations, and societies look up to education to provide a cure for poverty, bad government, poor communication systems, inadequate shelter, innovation, employability, a

competitive labour market, and an improved scarce skilled labour force (Borchert, 2002; Haase & Lautenschläger, 2011:1-13). Increasing the level of economic activity is one of the major goals of every nation aspiring toward quality of life and social status for all their citizens whilst young people face many of life's most important decisions during those transition years between high school and the world of working life.

Studies conducted on the career choice and employment opportunities revealed that many students are unaware of their education and employment options and the career paths the students follow to their careers are indirect, and their decisions are often based on scant information (American College Testing Program (ACT), 2008a; Burke, 2012; Mashige & Oduntan, 2011:23; Olawale, 2014:668). Career and employment opportunities function as a significant predictor for the choice of a College education where secondary school going students are influenced by what the FE institutions' graduates do after completing their College qualifications, and the contributions they make in their society (ACT, 2009; 2012a; Caumont, 2014; Servier, 2001; 2004; Tinto, 2017:5). Also the students are interested in the employment preparation opportunities provided by the FEC based on existing job opportunities for the graduates.

In this regard students often experience problems when deciding on career choices which affect them throughout their lives and determine their enjoyment of those careers in the future (Mashige & Oduntan, 2011:22; Olamide & Olawaiye, 2013:37; Watson, McMahon, Foxcrof, & Els, 2010:719). The correct career choice amongst the young people who are on the verge of completing their secondary schooling days is one of the major areas of concern since they choose unsuitable career paths due to ignorance, inexperience and peer pressure (Alberts, Mbalo & Ackermann, 2003:171; Fletcher, 2012; Kern, 2000; Servier, 2002; Issa & Nwalo, 2008:25). This career mismatch constitutes a nuisance to the youth, parents and potential employers since such students are unable to contribute meaningfully to the country's economy.

Improving the level of sophistication of economic activity is one of the major goals set for FE institutions which require an efficient allocation of the appropriate human resources in order to achieve set goals (Borchert, 2002:84; Haase & Lautenschläger, 2011:7; Howard, 2018; Papier, 2017). Therefore, the FEIs' personnel need to understand the determinants of students' motivation and career choices for the socio-economic role of the FECs. In addition, identifying the various factors that influence students' career choices would give parents, educators, and the industry an idea as to where students place most of their trust in the career selection process, and encourage the policy-makers to understand students' career decisions (Ayentimi, Burgess, & Dayaram, 2018; Brown, 2010;

Mohammad, 2015; Mudhovozi & Chireshe, 2012:168). Among College graduates, the choice of occupational programme-is strongly associated with students' institutional choices wherein the career choices represent a substantial investment in occupation-specific human capital whether in humanities, business, sciences or engineering fields (Arcidiacono, 2004:343-375; Carneiro, Meghir, & Parey, 2013; Ceja, 2006; Kiyama, 2010; Perez & McDonough, 2008; Wiswall, 2006).

Exploring the factors that contribute towards students' career choices is an area of recurring interest in TVET Colleges that can impact on the economic development of the country. Career path selection is one of the many important choices that students have to make in determining their future plans (Baker & Griffin, 2010; Baldwin, & Rosier, 2017; Drake, 2011, Powell & McGrath, 2019). Such decisions shape their employment opportunities throughout students' lives. The essence of who the student is revolves around what the student wants to do for a living. Student career choice has been a common and serious challenge to most secondary school-going students throughout South Africa.

2.6 STUDENT RECRUITMENT

Prospective students are recruited into the post-school institutions from a variety of secondary schools with different backgrounds. For Hoyt and Brown (2003) and Punnarach (2004) student recruitment and admissions personnel should be focusing on two areas in the main. Firstly, the recruitment section deals with the identification of students whose careers and educational goals are closely matched to the institutional mission. Secondly, they focus on recruiting, selecting and admitting those students whose educational goals and expectations are relevant to the vision of the post-school institution. The development of enrolment management programmes in recent years has empowered the student recruitment and admission personnel in many FECs. An institutional perspective on how the academic institution chooses its prospective students and what financial aid the institution offers forms the crux of an institution's core business (College Board, 2005b; Swail, 2004). Furthermore, education institutions must be cognizant of the issue of institution-student-fit, and at some point the business side must regress to allow for the personal side of the college connection.

Understanding the decision-making processes regarding how students select a TVET College will assist the Further Education institutions to target their student market better. Student recruitment has therefore become increasingly important and numerous studies have examined Further Education institutions' recruitment processes in an attempt to identify factors influencing students' choices (Espinoza *et al.*, 2002; Gray & Daugherty, 2004; Hoyt & Brown, 2003; Punnarach, 2004). It is

important for student enrolment management personnel to match students' goals and expectations to the FEC's mission and vision as they identify the potential students for admission and orientation (Swail, 2004:24).

TVET Colleges that are knowledgeable about the factors that influence students' educational interests and enrolment decision-making processes can increase the fit between the student and the institution. Academic institutions can use student selection process information to develop marketing strategies designed to attract sufficient numbers of students with the desired academic goals as well as non-academic characteristics such as gender and ethnic orientation.

2.6.1 Pre-college preparatory programmes

The pre-college programmes offer the institutions an opportunity to recruit and assess student ability based on previous contact with potential students at secondary schools. The responsible staff members should capitalize on the available student data and students' involvement in the pre-college programmes offered by the individual academic institution to ensure the efficiency of the FEC or the specific FE campus in relation to student recruitment (Baker & Griffin, 2010; Drake, 2011; Hoops & Artip, 2016; Kimbark, Peters, & Richardson, 2017; Swail, 2004:24). Accordingly, Choy, (2001:106) and Coy-Ogan (2009:32) identify five sequential steps which prospective FEC students must typically adhere to:

- aspire to attain qualifications early enough to make the necessary preparations,
- prepare academically to ensure qualification,
- write examinations for admission,
- apply to a fulltime College qualification
- receive confirmation of acceptance and enrol at the College.

The likelihood that students will make a successful transition from secondary school education to a TVET College environment is often related to assistance for students to be ready to enrol at a specific institution (Hoops & Artip, 2016; Kimbark, Peters, & Richardson, 2017; O'Gara, Karp, & Hughes, 2009). This assistance serves as a guiding tool to assist students who have the potential to complete further education College qualifications not to go astray at some point along the pre-study enrolment actions as discussed above (Conley, 2008:21; Coy-Ogan, 2009:34; DHET, 2012; Swail, 2014). Prospective students need recent and relevant information about the array of post-school options to

be available as early as from Grade 8 in order for the school-going students to make appropriate subjects combination selections while still attending secondary school and to develop solid post-secondary school aspirations (McDonough, 2004:112; Engle & O'Brien, 2007:157). Furthermore, previous educational and personal experiences during pre-college preparatory visits equip students for the expectations and demands that these students will encounter in order to succeed in particular fields of study in the Colleges. Academic habits ingrained during primary and secondary school years and students' academic accomplishments have a major impact on their successes as College students (Wyer, 2005:93).

College Board (2008a) research delineates a student's post-school preparedness dimensions by identifying academic under-preparation, emotional under-preparedness, and cultural under-preparedness as common factors influencing first-generation students' persistence in their first year of study. Studies conducted on students' pre-college preparedness reveal that most students who advance to post-school institutions are not fully prepared and have limited knowledge on how FECs operate and how to navigate through the demanding expectations of College life (Adelman, 2006; 2009:32; Attewell, Lavin, Domina, & Levey, 2006:33; Conley, 2007a).

Without thorough preparation in all the areas of College life, particularly the first year students are categorized as at risk of failing to complete the programme in which they enrolled since the social and cultural expectations about the academic performance and learning in general can be quite different from those of the secondary school environment (Attewell *et al.*, 2007:5; Choy, 2001; Conley, 2007b:23-39). Students' secondary school subjects may have been completed with good grades and satisfy admissions requirements, yet the rigor may not imply readiness for the TVET College education courses, especially during their first year of study. There is need for post-school institutions to be flexible in their course offerings and the time of course offering and in the provision of pre-college programmes which will result in prospective students sustaining interest in attending that particular College (Espinoza *et al.*, 2002:21; Swail, 2006:34).

In summary, reaching the point where the TVET Colleges in South Africa become a viable option and institutions of choice for prospective students requires thorough planning and a variety of actions by students while still attending secondary schools (Howell & Smith, 2011:2-7). The TVET Colleges should encourage potential applicants to participate in College preparatory courses, writing entrance examinations and applying for admission to further education institutions and for financial aid. Further Education Colleges should provide constant career guidance, counselling, academic support,

and accurate information to students to ensure that the College staff achieve certain milestones in assisting and motivating students at various levels of school-going age for future successful College education.

2.6.2 Promoting a College-attendance culture

The transition of students from a secondary school to a post-school environment demands considerable efforts from all stakeholders. Several studies conducted on student success with further education tuition concluded that the solution to College students' lack of readiness is that the secondary schools and post-school institutions are not working together in creating the environments that prepare students for a post-school environment (Conley, 2007b:23-39; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006:219; Moore, Slate, Edmonson, Combs, Bustamante, & Onwuegbuzie, 2010:817-838).

Post-school preparations assist the first entrant students to be academically and socially adept to integrate into the further education College environment, and demand a more rigorous and engaging secondary school curriculum which increase the preparedness of persistence toward College qualifications (Adelman, 2006; Horn & Berger, 2004:304; Horn & Kojaku, 2001:162; Roderick, Nagaoka, & Coca, 2009:185-209).

For that reason, Kuh *et al.* (2006:54) argue that there is a need for student preparatory programmes targeting the smooth transition from the secondary schools to FEC environments. Preparatory programmes for the student at risk of withdrawing should include student success initiatives such as student orientation, transition courses and first-year seminars. It should further include the development of learning communities, intrusive advising, tutoring, and supplemental instruction. In all of this, peer tutoring, study groups, summer bridge programmes, study skills workshops, mentoring, student support groups, and student-faculty research for improved practice are crucially valuable (Kuh *et al.*, 2006:221).

The views that academic institutions should take a fresh look at the current readiness agenda to determine if these college-readiness standards and preparation programmes are and should be prescriptive for all students contradicts those who support differentiation, rather than standardization, as the key to success (Barnes & Slate, 2011; 2013:1, Noddings, 2010:7-8). Nations should face the unpopular and harsh reality that some students have neither the interest nor aptitude for certain

subjects offered by the FECs. College and career readiness can be achieved through focusing on differentiation of academic offerings, improving quality for those students who show interest and aptitude for a given subject, and providing clear career paths that correlate with academic or vocational programme offerings (Barnes & Slate, 2013:8). For that reason, Haskins and Rouse (2013:137) emphasise the significance of additional evaluation that should establish evidence-based best practices that will serve as guidelines on how the TVET College environment can dedicate resources to increase College readiness.

In summary and concurring with Kuh *et al.* (2006:54), the researcher is of the view that the use of current students and former students who serve as College assistants to visit local schools as recruiters of College tuition is one of the cost-effective ways of reaching out to the community. This practice is appealing because of the close connection between College students and secondary school students as opposed to continuous visits by adult recruitment personnel. Also the interactions between the College and students' former schools assist in generating a peer relationship between the TVET College and secondary schools which becomes an important part of a student's decision-making to attend a particular College. TVET Colleges are expected to determine partnerships with individual schools so that students from a particular school may apply to a range of FEIs of their choice.

2.6.3 On-site campus orientation

Providing prospective students who enrolled at the College for the pre-college with on-campus experiences, especially with regard to experiences on the possibilities of all the different facility opportunities, can have long-term positive impacts on their aspiration for post-school studies (Bridglall & Gordon, 2002:24; Brown, 2010; Ming, 2010: 3). The on-campus orientation provides practical applications for both students and Colleges, namely affording students the opportunities to test the campus environment so that they become more familiar and comfortable with the College, and allowing the FEIs a better chance to recruit students who have had extended visits to the campuses.

In spite of the fact that institutional-fit and campus integration are important factors for retaining students until completion of their qualifications, the campus climate mediates students' academic and social experiences in the FEC institutions where students from low SES environments who are inadequately prepared for non-academic challenges can experience culture shock during their first year of study (Ming, 2010:55; Swail, 2004:8). The lack of insight and attention to aspects such as

parents' income, race and ethnicity in the student population by faculty members and a curriculum that often restricts the nature and quality of minority students' interactions within and outside the classroom, threaten their academic performance and social experiences. The campus visit is a major factor in the decision making process and one of the College's best recruitment tools that becomes one of the most important factors influencing a student's decisions on enrolment and eventual success with College environment education (Ming, 2010:3; Sevier, 2004:19).

Student orientation forms an important part of student integration on the campus, both socially and academically. On-site campus orientation programmes should look beyond the student and offer opportunities to families and other significant student associates, since a student's College visit is an experience for the entire family and not just for the student who enrolls and attends the specific academic institution. For this reason, extensive communications with families should become standard practice for all TVET Colleges.

2.6.4 Student course credit orientation

Most FE institutions use student orientation sessions to introduce newly enrolled students to institutional support services, such as counselling, academic support services and student health services (Beal & Crockett, 2010:259; Marsh & O'Mara, 2008:543; Seginer, 2009:173). Although the establishment of mandatory student orientation without any course credit is a standard practice on campuses, students often resent this use of their time, particularly when student orientation programmes are poorly planned and provide information on further education institutional services and regulations only.

Formal student orientation programmes should combine both life skills and academic aspects of orientation to students where providing a course credit for the attendance of such an orientation programme could be a vital aspect of preparing students for FEC activities, especially as academic difficulties are reported to manifest predominantly in the first year of study (Jones, Coetzee, Bailey & Wickham, 2008:51). Studies on student orientation found that course credit orientation assists newly enrolled students to adjust in their new academic and socio-cultural environments and, in this way, improve student retention, throughput and success (Braxton *et al.*, 2006; Hossler, 2006; Patton, Morelon, Whitehead, & Hossler, 2006). Linking student orientation programmes with a course credit generally motivates students' interest and attention, and justifies the importance of student orientation

to students in relation to their academic pursuits (Hughes, Rodriguez, Edwards, & Belfield, 2012:104; Redden, 2007:121; Swail, 2004).

The call for improving course credit transfer among educational institutions has merit as it fuels the argument for greater articulation between education providers in order to provide increased credit transferability for students interested in continuing with their College education at other institutions (Coy-Ogan, 2009:31; Planty, Bozick, & Ingels, 2006:79; Warburton, Bugarin, & Nunez, 2001:73-77; Schwartz, 2004:28). The rationale for credit transfer among institutions anticipates that students who earn college course credits either through attendance of the designated credit programme hours for first-semester students or during their secondary school-going days are likely to perform better in their first-year of college studies, and are likely to eventually have a better chance of success to graduate as college students than their peers who do not enrol for the college-preparatory course credit (Jones *et al.*, 2008:54; Lerner & Brand, 2006:134).

Enrolling students in advance and encouraging potential students to attend college-preparatory courses while still in secondary schools increase college-preparedness and workplace readiness because students who participate in advanced placement programmes have a convincing success rate with the eventual completion of their College education (Dougherty, Mellor, & Jian, 2006:103; Dougherty & Kienzl, 2006:452-487; Samarge, 2006:84). For that reason, Brown (2010) and Conley (2007b:24-38) assert that these college-preparatory courses afford students a seamless transition from the secondary school environment to the post-school set up, since the advanced placement course expectations are similar to the academic staffs' expectations of College courses.

The diversity of courses offered by South African TVET Colleges is both an advantage and a disadvantage to the prospective students since the range of course provisioning makes it possible for potential students to undertake a suitable course, but at the same time some students are faced with a bewildering choice (NAO, 2001:13). Sometimes students shop around for suitable academic institutions in search for a place in the most advanced qualification programme and subsequently some students leave TVET Colleges because their expectations of what the courses will cover are not realized. According to Habley (2000:40) registered students may withdraw either because of the level of the subject content difficulties, or the extent, or lack, of depth and breadth of curriculum content, or even because of the eventual lack of relevancy to their chosen career path.

In summary, the decision to attend College education is a significant process influenced by numerous internal and external factors. There are an increasing number of first generation students who pursue

FE studies and commit themselves to attain a College qualification, but who face numerous challenges during their first year of study when compared to their peers from College-educated families (Dougherty *et al.*, 2006:106). For that reason, Tinto (2010:73) argues that while student enrolment increases, there is still proportionately less participation from students who are first generation students. Personal experiences, self-efficacy, and beliefs about the benefits of post-school education create a foundation from which students approach the college decision-making process. Once students are fully registered and have commenced with their studies, the TVET College institutions need to provide relevant academic support and remedial programmes to students who are academically underprepared because of the fact that they are first-generation students lacking social capital for success with further education.

2.7 SELECTION AND ADMISSION PRACTICES OF STUDENTS

Institutional selection and admission mechanisms are important tools used to ensure that only those applicants with the academic potential to succeed are admitted to the applicable academic institution and the selected field of study. Encouraging and recruiting prospective students to enrol and to gain Further Education higher institution qualifications has led to an increased focus on admission processes and the decision-making processes that are made by both the students and the institution during student admission where the applicant chooses the preferred institution, and then the institution selects the applicant based on the minimum entry requirements (College Board, 2005c; Cook, 2009:12; Jones *et al.*, 2008:47).

Both the institution and the student have the responsibility to ensure that the choices made are in their best interest considering that the criteria for student admission may vary from one institution to the next as well as between faculties within the same institution resulting in a situation where some students who had been refused admission to one FEI had been accepted by another institution. Selecting of potential students for success at a specific institution has become a complex matter as it is increasingly accepted that secondary school marks including the Grade 12 final results may not any longer be reliable predictors of possible academic success at a FEI (Schwartz, 2004:4). A fair but realistic admission system that provides equal opportunities for all applicants irrespective of their background, but with consideration of merited ability and aspirations are necessary for the TVET College environment. In this study on student retention and achievement, student selection and student admission refers to the process by which prospective students are selected and admitted into

a range of qualifications and programmes in the TVET College institutions based on mutual decisions by the institution and students themselves regarding their needs.

2.7.1 Selection practices

With regard to standardised student selection for further education, studies reveal that countries in general apply selection strategies that involve the general certificates of secondary education (GCSEs) assessments, scholastic aptitude test (SAT) testing, and grade point average (GPA) as selection criteria for student admission (Abdull, 2014:141; Adelman, 2006; Cook, 2009:14; Edwards, Coates, & Friedman, 2012:88-100; Hagedorn & Fogel, 2002:174; Rich, Ayers, Thomson, Sinclair, Rohan & Seymour, 2012:28; Salvatori, 2001). The satisfactory performance in the GCSEs which are subject-based examinations set by the regional examination board to a nationally agreed core curriculum is accepted as the minimum requirement for applicants to continue into post-secondary education institutions. Some educational institutions select and register applicants based on a combination of best performances in SAT and GPA tests and other factors such as personal interview performances, personal statements, academic achievement test results, and references from the specific secondary schools. This selection process ultimately allows the candidates an opportunity to succeed within the programme based on competence.

The use of accurate student selection methods leads to transparency regarding admission processes and facilitates a reasonable prediction of student performance beyond the first year of college education study, reducing the demands placed on College staff and faculty dealing with students who are potentially struggling within the programme (Abdull, 2014:145; Edwards *et al.*, 2012:90-98; Saupe & Eimers, 2011:12). Pre-admission tests are valuable as these tests for selection assist to ensure that applicants who are unable to perform in the specific field placements, applicants failing to adhere to course requirements, and applicants exhibiting difficulty in College life are not selected for study at a FEI (Rich *et al.*, 2012:27-34). It also eliminates the sole reliance of selection committees on academic performance which insufficiently determines the logical reasoning, problem solving skills, and student motivation among students accepted into any given faculty. For that reason, the pre-admission tests reduce the impacts of secondary school assessment inconsistencies in the admissions process, measure student aptitude and potential to acquire knowledge and minimize the cost involved in the student selection programme since such tests decrease the number of students dropping out of their further education programmes (Edwards *et al.*, 2012:91-100; Geiser, 2009:16-20; Morrison &

Schmit, 2010:241; Reibnegger, Caluba, Ithaler, Manhal, Neges, & Smolle, 2010:205-214; Stemler, 2012:67).

Inferring from the above views, several studies conducted on pre-admission tests advise that it is critical that the selected pre-admission test be subject-specific which will allow FEC faculties to select students who are likely to succeed in the specific programmes and related future careers they select (Lai, Nankervis, Story, Hodgson, Lewenberg, & MacMahon Ball, 2008:331-344; Mattimore, 2008:57). The post-school institutions should bear in mind that the locally developed pre-admissions tests which they use as pre-admission tests to select and admit students to their respective institutions are broad in nature, are influenced by socio-economic standing, are subject to parental experiences, and are attuned to the opportunity to access test preparatory material (Edwards *et al.*, 2012:87-101; McDermott, 2008:139; Morrison & Schmit, 2010:248; Saupe & Eimers, 2011:212). In addition, pre-admission testing provides improved objectivity, efficiency, and accuracy in the student selection process, thereby reducing the impacts of secondary school assessment inconsistencies on their admissions process (Marnewick, 2012:123-137; Schmitt, 2012:18-29).

2.7.1.1 Admission requirements

In the education industry, student admission is the process of admitting prospective students to enrol in a range of post-secondary institution possibilities based on mutual decision-making processes regarding the needs, scarcity and reward of qualification completion, and is often described as a combination of art and science (Cortes, 2013:60; Stemler, 2012:5-17). The science aspect of student admission is overly portrayed by the growing frenzy around College entrance tests and the relentless push for prestige among Colleges (Lovett, 2005:26; Schmidt 2008:14; Soares, 2012:89).

Regardless of entrance test requirements, FEIs are increasingly realising that the scores on standardized College admission examinations, which is one of the presumed measures of students' academic readiness for College education, fail to account for much of the variance in students' persistence and the likelihood to achieve their qualifications (Sternberg, Gabora, & Bonney, 2012:35). The recruitment structures and College admissions vary widely from country to country which results in several applicable processes and recruitment practices around the world in the FE market.

Generally, the nationwide student admission policy stipulates that access to post-school institutions is predicated on the secondary school credentials where students who pass senior secondary school

final examinations with the minimum entrance requirements set by academic institutions or institution departments qualify for admission at that academic institution independently (Kurantowicz & Nizinska, 2013:137). Implied here is that students who pass their final secondary school examinations with less than the expected minimum required results could not be accepted in the higher institutions and that with minor differences across the College spectrum, students who achieve high final examination marks are guaranteed admission to full-time studies at public FECs (Zwick, 2007:63).

The FEI adopting the no-admission-test arrangement claim that their applicants have become more diverse in racial, ethnic, and socio-economic composition and in the range of expressed interests of study which influence some post-school institutions to provide educational opportunities through open access to students who are under prepared for College-level courses. Admission tests have thus become obsolete (Epstein, 2009:8-12; Moss & Yeaton, 2006:216; Shanley, 2007:430). However, simply providing opportunity to interested students may not be sufficient to deal with academically underprepared students, who may require further academic support in order to be integrated successfully into the FEI. Therefore, the further education Colleges need to restructure and redesign their selection and admission requirements so that they include non-cognitive abilities in order to address academic preparedness and understand the under prepared student better (Bailey, 2009:11-31; Boylan, 2008:2-3; 2009:1-23).

The intelligence of students should be measured by cognitive ability and the extent of adaptive competency in order to successfully adapt to the non-cognitive environmental challenges where these students can develop practical and creative skills to survive in the College environment (Sternberg, 2005:6-13; 2007:170). The shift from concentrating on the cognitive to the non-cognitive measures for student assessment is the result of changing the focus from student selection and placement towards students' holistic development related to adapted educational practices pertaining to instruction and counselling (Gottfredson & Saklofske, 2009:183-195). Studies on student admission revealed that some academic institutions use the non-cognitive factors to assess if students had determination, autonomy, and the willingness to seek help on teaching and learning which augment the SAT assessment and assist the FEI in determining the interventions to help academically underprepared college students to improve their chances of success (Boylan, 2009:14-23; Schmitt, Keeney, Oswald, Pleskac, Billington, Sinha, & Zorzie, 2009:1479-1497; Sternberg, 2008:150-160).

The utilization of the appropriate selection methods allow the admission of students who have the highest chance of success both within the context of the programme and working life following

graduation (Kogan & McConnell, 2001:101-108; Rich *et al.*, 2012:27-34; Salvatori, 2001:159-175). A clear and effective admission process for TVET Colleges is necessary where student space is a limiting factor like in situations where the vocational and technical laboratories or workshops are designed and equipped to safely serve a specific number of students. Consequently, a complex of such facility provisioning lacks both the space and the flexibility to accommodate the possible needs and interests of all applicants. Therefore, an appropriate selection process to determine which applicants will benefit from specific educational opportunities is important.

2.7.1.2 Prior educational attainment

The prior educational attainment record remains one of the best indicators of success at undergraduate level, and continues to be central to admission processes since the more different the prior experiences are of the recruited students at the FEIs the more difficult will it be for students to adjust in the new post-school environment (Conley, 2007:44; Cook & Rushton, 2008:113). Several studies on prior educational attainment emphasise that equal examination grades do not necessarily represent equal potential (Dayton, 2012; DeAngelo, Franke, Hurtado, Pryor, & Tran, 2011; Duckworth, Peterson, Matthews, & Kelly, 2007). As indicated in section 2.6.3, students' success in Colleges' academic activities is dependent upon a wider range of traits than is considered in the traditional admission process. Furthermore, applicants have responsibilities at home or at work other than their College studies, which can also interrupt their study programme and affect their education achievement. Recent research shows that, *ceteris paribus*, students from state schools and Colleges tend to perform better at undergraduate level than students from independent secondary schools and Colleges when all variables are considered equal (Cortes, 2013:61). The reason for this relates to the comparatively more funding and related sources allocated to the state learning institutions by the government.

The American College and Testing (ACT) Program, the Scholastic Aptitude Test (SAT) scores and the higher number of credit hours in pre-attendance orientation programmes are considered to be significant factors in attaining better educational qualifications and are therefore useful predictors of first-year student persistence with College studies (Zwick, 2007:42). There is a growing body of studies challenging the long-standing and tightly held assumptions with regard to the validity of the standardized selection tests and also that the standardized test scores alone are less predictive and inaccurate than the secondary schools' grade point average examination points (Adebayo, 2008:15-17; Camara & Echternacht, 2000:134; Hagedorn, 2005:90-105; Kobrin, Patterson, Shaw, Mattern, & Barbuti, 2008:94).

In contrast, some studies on students' educational attainment reveal that the secondary school examination performance is the best predictor for prospective College success, regardless of the reputation and the quality of the secondary school, and the fact that such secondary school examination results are less closely correlated with the students' socio-economic characteristics than are standardized test scores (Bowen, Chingos, & McPherson, 2009:57-59; Geiser & Santelices, 2007:82). In addition, the standardized test results have differential validity for various groups of students which are not a cultural bias but indicate that the meaning of the results is not the same for all groups of students (Kobrin *et al.*, 2008; Nankervis, 2011; Zwick, 2007). The students in the South African TVET Colleges are generally selected and admitted based on the secondary school examination results, but various Colleges use different other additional educational attainment methods to supplement the school results.

2.7.1.3 The readiness of students for post-school education and training

There are TVET Colleges that may not be in the position to massively increase their enrolments immediately. The TVET Colleges with more capacity will increase enrolments in the short to medium term. It is estimated that only 20% of TVET Colleges are able to reasonably increase their student enrolments immediately (DHET, 2009:8, 2018; Mlachila & Moeletsi, 2019). The remaining 80% of the TVET Colleges need to be supported by government and need to develop plans to ensure that they can eventually increase their enrolments. Infrastructure development, the strong mentoring and coaching of management and teaching staff, and the development of management's financial and planning capacity form part of the support required by different TVET Colleges in order to become viable institutions for increased student access. In general, the TVET Colleges need to create learning environments that are more attractive, so as to increase access and attendance, improving the level of participation leading to high throughput rates (DHET, 2012:24; 2019). All of these measures are imperative for the endeavours of TVET Colleges to successfully retain their enrolled students until these students obtain their college qualifications.

College education readiness as explained by different definitions should be redefined as the academic preparedness of prospective students that include the range from simple quantitative measures of academic preparedness to more complex definitions of which academic preparedness is only one component (Barnes, Slate, & Rojas-LeBouef, 2010:4; Perna, 2005:217; Conley, 2008: 3-13; Perna & Thomas, 2006). Post-school education readiness comprises of domains such as cognitive and

metacognitive capabilities, content knowledge, academic self-management behaviours, and application and acculturation to the College culture where the student is enrolled.

Student readiness is also coupled with social and environmental factors that present a more holistic view of what is required to be successful in College environment education. For that reason, one of the important elements of a student's cognitive and metacognitive capabilities for College success include the critical-thinking skills of analysis, interpretation, precision and accuracy, problem solving, and reasoning (Achieve, Inc., 2005; 2006; 2012:6; ACT, 2006a; 2008b; College Board, 2007; 2008b; Conley, 2008:13, 2010; Perna, 2002:64-84). In addition, students are expected to possess specific content knowledge in the key areas of mathematics, writing, and reading. Students also need knowledge in academic self-management behaviours, such as study skills and time management capabilities as well as the understanding of the academic institutions' application processes and the acculturation to the College environment. Whilst acknowledging that academic preparation is an essential part of student readiness for success with College study, career skills and students' life skills and general competence in literacy and mathematics skills are crucial aspects to be included with academic preparation (Achieve, Inc., 2006; 2012:6; Griffin, 2008:57).

Highlighted in section 2.6.3 is that factors such as childcare responsibilities and language barriers which have an influence on self-study habits, and students of single parents or unemployed and illiterate parents serve as risk factors for students dropping out of FEIs not completing their studies (Boylan, 2009:2-3; Chen, Wu, & Tasoff, 2010:124; Fewell & Deutscher, 2004:132-13; Griffin, 2008:57). Further, early educational factors relating to maternal responsivity are influential non-cognitive factors contributing to academic preparedness. Some studies on academic readiness questions the legitimacy of a one-size-fits-all accountability practice where academic authorities, administrators, policy makers, researchers, and practitioners agree that a rigorous academic preparation is essential for students to meet the demands of a globalised 21st century society (Barnes & Slate, 2010, 2013:3; Nichols & Berliner, 2006, 2008; Noddings, 2010:29-31; Rosenbaum, Stephan, & Rosenbaum, 2010:1-10; Ryan, Matheson, & Morgenthau (2004:932-989).

In contrast some College education readiness initiatives do not consider optional requisite skills and strategies necessary for College study success such as creativity, critical thinking, self-efficacy, and self-regulation. These initiatives also question the standardization of College readiness criteria which are considered to lower student achievement as an achievement generalized among all enrolled students (Adebayo, 2008: 21; Barnes, Slate, & Rojas-LeBouef, 2010: 2; Noddings, 2010:29).

As explained in section 2.6.4, studies on College education readiness emphasise that secondary school students can narrow the College persistence gap by taking rigorous pre-college courses that include English, mathematics and science (Adelman, 2006; Barnes & Slate, 2013:1-11; Barnes *et al.*, 2010:5; Combs, Slate, Moore, Bustamante, Onwuegbuzie, & Edmonson, 2010:441-457). In addition, the secondary school graduates who are academically prepared are best positioned to do well in College regardless of their race, gender, or socio-economic status (Cline, Bissell, Hafner, & Katz, 2007; Conley, 2007a, 2007b:23-39; Horn & Kojaku, 2001; Martinez & Klopott, 2003; Warburton *et al.*, 2001). These college-ready students can easily integrate into the complex, bureaucratic global society where they can develop and perpetuate personal attributes such as cultural, social, and economic capital status to eventually become engaged citizens (Chandler, Slate, Moore, & Barnes, 2014:1-12; Dougherty, Mellor, & Smith, 2006:74; Kirsch, Braun, Yamamoto, & Sum, 2007:92; Young & Ley, 2002:22, 2003:4).

Post-school entry requirements vary considerably in the ways they select and admit students for post-school experiences. In South Africa TVET institutions are characterized by various methods of admitting students where some admit students based on open enrolment systems in which the Grade 12 (matric) certificate is sufficient to gain entry whereas other institutions apply highly selective systems subject to rigorous admission and selection arrangements.

2.8 THE HISTORY OF STUDENT SUCCESS RATES IN TVET INSTITUTIONS

The multiple visions and missions at the FECs make it difficult to identify students who are enrolling for the purpose of completing full qualifications at a certain FEC or obtaining certain College credentials to transfer from one educational institution to another (Adelman, 2005). There are instances where students who are still in secondary school education complete only a few modules at further education institutions before enrolling as fulltime students at Colleges whilst other students complete all the lower-grade requirements at a specific College before transferring to another College (Moore, Shulock, Ceja, & Lang, 2007:11). Each of these circumstances represents a transfer, but these different circumstances are not equivalent with regard to the degree of progress they represent toward completion of a qualification.

The efforts to measure student success have been limited to student retention, graduation, and transfer rates which are inadequate in clearly defining academic completion as well as providing guidance with regard to improving student progress and degree completion (Moore, Shulock, Ceja, & Lang,

2007:11; Moore, Slate, Edmonson, Combs, Bustamante, & Onwuegbuzie, 2010:817-838). Although students' attendance patterns have changed, where some students attend College part time, and/or enrol in multiple institutions along the path to completion of their qualifications, measuring academic completion has traditionally examined only the full-time students at the beginning of their first year, and tracked only student retention and graduation within the institution where a student first enrolled (ACT, 2012b; Adelman, 2006). Unfortunately, these traditional measures of student success are difficult to apply to the FECs where students enrol for full-time and part-time studies and where the intermediate outcomes that students must achieve on their path to qualification completion are ignored. Traditional measures of student success also ignore the successful finishing by students of needed remedial courses and the completion of particular courses in addition to the courses set for a specific qualification (Allen *et al.*, 2008:646). By so doing the traditional measures of determining student success fails to provide any guidance for intervention endeavours to increase student retention and success with qualification completion.

Studies on academic completion argue that academic self-discipline, pre-college academic performance, and pre-college educational development have indirect effects on student completion (Allen *et al.*, 2008:646; García-Ros, Pérez-González, & Cavas-Martínez, Tomás. 2018). The diminishing resources placed an emphasis on student retention at the post-school institutions where countries have to translate academic student completion into accountability measures for FE institutions (Harackiewicz, Barron, Tauer, & Elliott, 2002: 562-575; Tinto, 2006: 1-19). Common practice in examining student retention is to predict student retention status or the possible successful completion of a qualification on competencies involving cognitive and non-cognitive factors. The Higher Education Funding Council (HEFC) in England, for example, uses two measures of retention, the first being student completion rate which is the proportion of new students who within a year continue their studies until they obtain their qualification, with no more than one consecutive year out of the HE system (NAO, 2007:5). The second and a more immediate measure of student retention is the proportion of an institution's intake which is enrolled in the HE institution in the year following their first entry to that HE institution.

Notwithstanding that student success may mean different things for different students, much of the emphasis in the UK on student success pertains to the retention of students in their courses and their successful completion of those courses and their qualification within a specified time-period (Jones & Thomas, 2001; Quinn *et al.*, 2005). All public TVET Collegee insitutions have the responsibility

to ensure that all their recruited and registered students are academically supported until they complete their qualifications.

2.9 FACTORS THAT PLAY A ROLE IN STUDENT ENROLMENT DECISIONS

Simply widening participation and increasing access to the further education institutions is not solving any egalitarian-related problems because student success over the past years and the statistics on student drop-out and failure rates, especially amongst historically disadvantaged communities, have increased in the face of increased access (Jones *et al.*, 2008:18; Thomas, 2002:1).

The South Africa TVET College system experience reflects international developments although with its own contextual features. Over and above the drive to expand post-school institutions, there has been considerable political pressure since 1994 to transform the system along the lines of race, gender, class and disability, with a particular emphasis on increasing access to the TVET College institutions for various categories of students (Jones, Coetzee, Bailey, & Wickham, 2008:18).

An ultimate relationship exists between the TVET College institutions and the students where the College acts as a service industry and the students as its clients. The TVET College system has the responsibility to recruit suitable students to the College whereas the student must choose the College where he or she is comfortable to enrol based on different factors. For the TVET Colleges to make appropriate decisions about the institution mix that satisfies their clients' needs, they must understand the consumers' expectations and their consumption behaviours. Responding to both the pressures and trends in the FE education, there must be expanded efforts by these educational institutions to understand the influence of consumer behaviour, more specifically the institutions' selection processes of the prospective students.

The TVET College institutions must first understand the student market base and become knowledgeable about the selection process as part of consumer decision-making processes in order to market themselves effectively. The decision-making processes examine the complex interaction between the marketing of the institutions and the consumer behaviour of students that bring change in the prospective students' selection by using effective marketing strategies.

Consumer behaviour is that which consumers display when searching for something, purchasing, using, evaluating and disposing products and services that they expect will satisfy their needs. It has

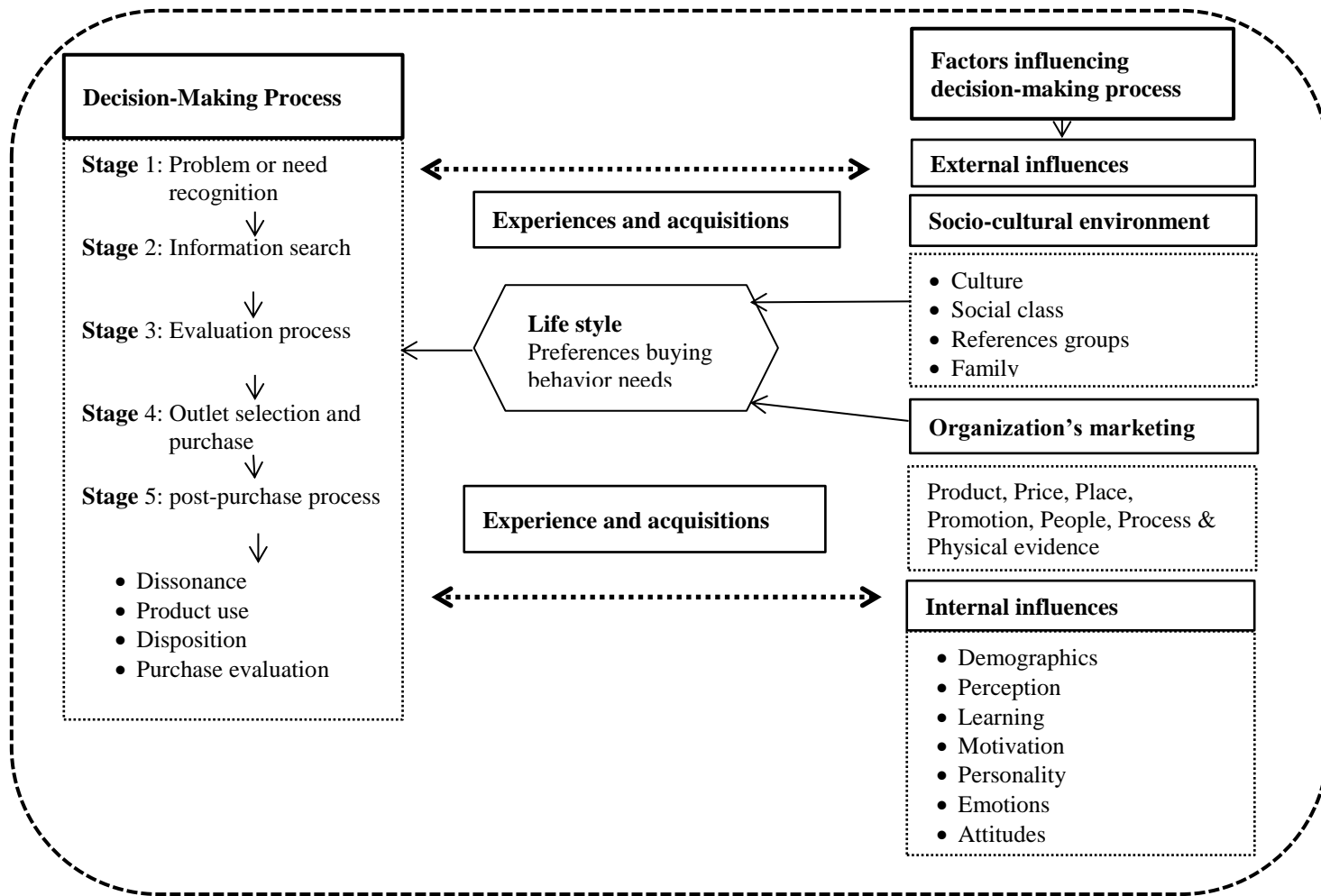
two different kinds of consuming entities, namely the personal consumer and the organizational consumer (Hawkins, Best & Coney, 2004:678; Schiffman & Kanuk, 2004:8). The personal consumer, also known as the end-user, refers to people who buy goods for their household use whilst the organizational consumers are the buyers of goods and services in order to run their own businesses (Hawkins *et al.*, 2004:678; Schiffman & Kanuk, 2004:9). The students' decision-making processes in this study are summarized and represented by consumer behaviour models. There are various consumer and decision-making models such as economical consumer behaviour, sociological consumer behaviour, and information processing models which are used to explain how students select post-school institutions (Cosser & Du Toit, 2002:22).

The Engel, Blackwell and Miniard model (Hawkins *et al.*, 2004:28) which provides a comprehensive discussion on the possible influences on consumer behaviour is used in this study as the basis for discussing the student decision-making process to select and enrol in one post-school institution rather than another.

The Engel, Blackwell and Miniard model of consumer behaviour consists of two parts: the process of consumer behaviour consisting of five steps, and the external and internal factors which influence the process (Berman & Evans, 2001:234; Hawkins *et al.*, 2004:28). These factors influence the decision-making process as illustrated by Figure 2.1 below. Section 2.9.1 briefly explains the external factors, and section 2.9.2 deals with the internal factors' influence on students' decision-making process for enrolment.

The steps involved in the decision-making process are discussed in section 2.9.3.

Figure 2.1: Engel, Blackwell and Miniard’s consumer model



Source: Adapted from: Hawkins, Best and Coney (2004:27)

The above model by Engel, Blackwell and Miniard of consumer behaviour illustrates how the decision-making process to decide on enrolment in a specific FE College is influenced by external and internal factors. The influence of these categories of factors is explained next.

2.9.1 External influences

The external influences depict those individual factors affecting individual clients, decision-making sections and organizations. External influences consist of the socio-cultural influences and institution’s marketing practices. The socio-cultural environment has a major influence on the consumer, and consists of various non-commercial influences such as culture, social class, reference groups, family and marketing efforts on consumer behaviour (Schiffman & Kanuk, 2004:553).

The study of culture is about all aspects of a society which is adaptive, dynamic and patterned blueprints for action and interpretation that enables people to behave in such a manner that it is acceptable to other members of the culture (Arnould, Price, & Zinkhan, 2004:106; Du Plessis & Rousseau, 2005:82). Cultural influences ascribed to the implicit values, norms, beliefs and customs prescribing the conduct of the society which lead to common patterns of behaviour, as are learnt from the society. Different societies are divided into small subcultures that consist of people with similar ethnic origin, customs and the way they behave, resulting in them sharing particular values and patterns of behaviour (Hawkins *et al.*, 2004:152). It is advisable for the TVET Colleges to understand students' culture and their background in order to understand the important values that students cherish, and to be aware of other aspects that influence students' choice of a FEC, and use such important information when developing their marketing strategies.

Social class refers to the division of members of societies into a hierarchy of distinct status so that members of each class have relatively the same status whilst members of all other classes have less status, and each social class is different in occupation, education, income, ownership and belonging (Peter & Olson, 2005:242; Schiffman & Kanuk, 2004:372). Social class is crucial to organizations since people of different social classes have different behaviour and needs. Prospective students, including students from a low socio-economic background in a society, may consider furthering their studies by selecting and enrolling at a particular FEI in order to improve their social prestige and alleviate poverty (Dhesi, 2001:13-25).

Accordingly, the South African upper and middle class students view obtaining FE qualifications as a career investment and consider post-school institutions as an advantage for employment opportunity and the primary reason for entering TVET Colleges (Cosser & Du Toit, 2002:3). Therefore, the TVET institution should establish and use the measurement of social class as they identify and segment their targeted clients. The social class database will assist these post-school institutions in developing effective marketing efforts directed at students from different backgrounds and social status.

Almost all people regularly interact with others who directly or indirectly influence their purchase decisions. Arnould *et al.* (2004:607) describe a person's reference group which can include family, friends, peers, educators and other influential groups of people, as a group whose presumed perspectives, attitudes, or behaviour are used by the individual as the basis for the individual's own perspectives, attitudes, or behaviour. Academic institutions must attempt to influence and win support of secondary school teaching staff, since they can exert critical influence on the potential students

when selecting a particular post-school institution. TVET College marketing personnel must identify the key reference groups that students make use of as they prepare their recruitment, advertising, personal selling activities, and distribution of the College information to prospective students.

The primary reference group that can exert the greatest influence regarding the attitude towards certain information, structuring and conditioning behaviour of the potential students is the family where the student belongs and usually maintains the longest affiliation with them (Hamrick & Stages, 2004:151). The parents play an important and central role in the student's early decision-making regarding furthering studies at a specific post-school institution (Bers & Galowachi, 2002:69). The TVET institutions can benefit by communicating with parents and providing information about the institutions' products through their children's school-going period. It is important for the Colleges to concentrate more efforts on reaching parents of the prospective students through the production and dissemination of publications, and fostering strong partnerships with secondary school personnel who can easily transmit such information to the parents. Although the children may ultimately decide which institution to attend, communicating with parents can influence students' enrolments since the parents are likely to respond in particular to messages about the financial wisdom of using an institution (Bers & Galowachi, 2002:69-82).

The marketing efforts by organizations are a direct endeavour to reach, inform and persuade consumers to buy and use its products and services (Schiffman & Kanuk, 2004:553). The TVET Colleges can influence students' decision-making processes by making students aware of their specific College-related needs, and supplying students with the information that will attract students' attention towards purchasing and using the College's service products through the use of the College's marketing mix such as the price, service product, promotion, place, process, people, and physical evidence all coordinated and integrated and aimed at attracting students.

2.9.2 Internal influences

Internal influences deal with how the individual reacts to group influences, environmental changes and marketing strategies. The demographics of consumers' personal information such as gender, race and age where gender refers to the cultural behaviour appropriate to a particular group in a society at a given time are aspects relating to internal influences (Arnould *et al.*, 2004:511-512; Hoyer & MacInnis, 2001:384). The roles and responsibilities of the gender are changing where males and females differ with regard to consumer traits, information processing, decision-making styles and

buying patterns. For that reason, gender influences the purchase and consumption needs, as physiological differences between males and females may lead to specialized service product needs (Bers & Galowich, 2002:70; Hoyt & Brown, 2003:3;). Organizations need to be sensitive to gender-based differences in service product meaning and symbolism.

The significant differences between male and female students, and the importance they attach to different information sources in the institution selection processes, relate to matters such as female students consider parents, educators and career guidance personnel as key sources of information, whilst male students do not consider any of these three sources as important. Furthermore, male and female students express different views with regard to the institution or campus security (Du Plooy & De Jager, 2004:227; Maringe, 2006:269).

Perception is a process of giving meaning to sensory stimuli through which people select, organise and interpret sensory stimuli into a meaningful cohered structure such as, for instance, students' views on a brand, service product or institution (Bers & Galowich, 2002:70; Hoyt & Brown, 2003:3; Lamb, Hair, McDaniel, Boshoff, & Terblanche, 2004:166; McDonough, 2004:527). Hoyer and Macinnis (2001:386) emphasise that perception consists of three components: first, exposure which occurs when stimulus comes within a range of the sensory receptors of consumers. Attention as the second component of perception occurs when the stimulus activates receptors and relates the sensation to the brain for processing. The third part of perception process is interpretation which consists of the assignment of meaning to stimuli that have been attended to.

Accordingly, perception has strategic implications for FEIs, because consumers make decisions based on what they perceive rather than on the basis of objective reality (Hoyer & Macinnis, 2001:101; Schiffman & Kanuk, 2004:199). The perception, for example, that the specific post-school institution offers quality education makes a considerable impact on the decision-making process of students to select and enrol at that institution. Also, good quality academic programmes, leadership opportunities, job placement options and employment opportunities, financial aid options and good value for money are some of the factors that determine the perceived quality as experienced at the *alma mater* after completion at an institution (Jones, 2002:88-89).

Consumer learning is the process by which individuals acquire, purchase and consume knowledge and experiences which they apply to their future related behaviour. The implication is that service product, performance, availability, values, and preferences are important for the consumer and the

provider organization therefore is interested in the nature of learning so as to continuously improve on provisioning (Schiffman & Kanuk, 2004:245). If the needs are satisfied, continued reinforcement usually leads to brand loyalty for a particular brand, service or product. Equally, if the consumer learning experience has been negative, the consumer will respond to the stimuli from competitive brands. Applied to the TVET institution environment, TVETs need to know and understand how students learn best and make use of information when developing their promotion strategies to ensure that students learn about the service products they have to offer and that the institution's brand will appeal to prospective students.

Motivation is an inner drive that reflects goal directed arousal by internal stimulus such as hunger, thirst, desire or self-esteem which can be identified through the use of Maslow's hierarchy of needs, namely the physiological needs, safety and security needs, social needs, ego needs, and self-actualization (Arnould *et al.*, 2004:288; Schiffman & Kanuk, 2004:103). The consumers' motivation and goals depend on how consumers interpret macro-environmental factors, local content, and social networks within their own personal history, circumstances and values. Therefore, motivation means that students have a need that is sufficiently pressing to drive the student to search for satisfaction of their needs. For Haig (2002:50), students choose FEIs that would provide them with studying and working opportunities. In contrast, the popular reason for selecting and enrolling in FEIs include enjoyment of the subject matter, new subject areas, need for a qualification in a particular career, better jobs, and to enjoy student life (Whitehead, Raffan, & Deaney, 2006:5). TVET Colleges can make use of the need level that is shared by large segments of the student market to focus their marketing advertisement appeal and other marketing mixes to satisfy that specific need. Personality is the distinctive and enduring patterns of thought, emotions and behaviour that characterize each individual's adoption to the situation of the consumer's life (Arnould *et al.*, 2004:389; Schiffman & Kanuk, 2004:150). Consumers prefer the service products that preserve, enhance, change or extend their self-image by selecting outlets or brands they perceive as consistent with their relevant self-image or personality.

Peter and Olson (2005:49) define emotions as strong, relatively uncontrolled feelings that affect the behaviour of individuals experienced when the environment, events, or consumer's mental processes trigger physiological changes and therefore affect the consumers' thoughts and behaviour. For Hawkins *et al.* (2004:374), advertisements with emotionally arousing material lead to an increase in attention, a higher degree of processing, better remembering and brand preference. The TVET

Colleges can make use of the emotions to capture the attention of the prospective students as well as creating the brand preferences.

Attitude refers to the evaluation of a concept or object such as an issue, person, group, brand or service expressing a degree of favour or disfavour by which consumers select information in the environment to interpret and view an attitude as the point at which consumers become conscious or aware of certain stimuli (Peter & Olson, 2005:49). Attitude consists of three parts which influence each other: firstly, the cognitive component, that consists of the individual's beliefs and knowledge about the object; secondly, the feelings or emotional reactions to an object that represents the affective component; and, thirdly, the behavioural intention (Hawkins *et al.*, 2004:395; Schiffman & Kanuk, 2004:285).

The TVET College education provides a variety of service products and information to their prospective students hoping that it will lead to a favourable evaluation by the students, and that those students' positive attitudes will lead to brand selection and purchase behaviour. These academic institutions can use the measurement of attitudes to identify segments for which they can develop new service products and to formulate and evaluate promotional strategies. It is important for the TVET institutions to generate and maintain the positive attitudes towards their institutions through the information they dispatch to their clients.

Lifestyle suggests a patterned way of life into which consumers fit various service products and the resources through which people conduct their lives, including their activities, interests and views (Peter & Olson, 2005:463). Lifestyle is a function of one's inherent individual characteristics that have been shaped through social interaction as the individuals grow which suggests that the TVET Colleges should use the differences in students' lifestyles to segment their clients' market, select appropriate media and to choose relevant advertising themes.

2.9.3 Decision-making process in perspective

The factors discussed in sections 2.9.1 and 2.9.2 play a vital role in influencing a student's decision-making process and the subsequent patterns followed to enrol at a specific institution. It is, therefore, crucial for the TVET institutions to consider such influences and clearly understand how individual Colleges can use them to their advantage when recruiting and selecting prospective students. The five-step decision making processes consists of problem or need recognition, information searches, evaluating alternatives, outlet selection and purchase, and, finally, the post-purchase process.

2.9.3.1 Problem or need recognition

The initial stage in any decision-making process is the problem or need of recognition (Peter & Olson, 2005:171). The recognition of a need can occur when the consumer is faced with the problem where consumers sense the difference between what they perceive to be the ideal state of affairs (i.e. the condition they would like to be in) as compared to the actual state (i.e. the condition they are in). The consumer acts immediately when there are discrepancies between the two stages which are influenced by the consumer's lifestyle and the current situation, the level of motivation, ability and opportunity (Baloyi, 2004:38). Both the external stimuli, which are the marketplace information such as the advertisements that lead the consumer to recognize the problem, and the internal stimuli perceived to be the state of discomfort can trigger the problem recognition (Gregory, 2014; Hawkins *et al.*, 2004:504; Johnston, 2010).

For students, problem recognition may occur through the realization that the secondary school education is insufficient and that obtaining a further education qualification will increase employment opportunities. The desired state of a prospective student may be to have a higher education qualification whereby a discrepancy or gap can exist between a student's actual and desired state of education that will force the consumer to immediately search for the solution to the problem (Berman & Evans, 2001:234).

As soon as the TVET College institutions become aware of the problem recognition patterns among potential students, they can respond by designing the marketing mix in an attempt to solve such problems. Also, these learning institutions must assist the students in recognizing the need to further their studies and then respond by developing marketing strategies.

2.9.3.2 Information search

The natural response from a customer to problem recognition is to find solutions, where the process of seeking a solution naturally leads to the search for information (Caumont, 2014; Hawkins *et al.*, 2004:525). After identifying a problem of sufficient magnitude to propel the consumer into action, the search process of acquiring information about the products or services to eliminate the problem starts. For that reason, the search for information should correlate with what an organization can provide within the individual's framework of reference (Du Plessis & Rousseau, 2005:87; Pascarella & Terenzini, 2005). The investigation of the consumer search process is important to organizations

since it influences the marketing mix strategies such as promotion and communication (Gregory, 2014; Johnston, 2010). The academic institutions must investigate student's information search activity by determining the usefulness of different sources used by students in the selection process. This investigation on the management of student retention and success can assist the TVET Colleges in responding to questions regarding the students' post-school preferences, and can also be used to influence students' search patterns in the decision-making processes.

2.9.3.3 Evaluation process

Once the consumer has searched for and selected the necessary information, the next stage to focus on is organizing, categorizing and interpreting the information, and concluding by selecting the evaluative criteria and ranking each criterion (Berman & Evans, 2001:235). The number, type and importance of evaluative criteria used differ from customer to customer, and across service product categories. While students evaluate different post-school institutions based on their performance on each choice criterion, the students use different decision-making rules to make their final selection of a particular TVET College.

2.9.3.4 Outlet selection and purchase

As the decision-making process progresses through the problem recognition, information searches, and alternative evaluation and selection, the consumer finally reaches a point where the actual purchase is concluded (Peter & Olson, 2005:179). The outcome of the brand evaluation is an intention to buy or not to buy. The purchase transaction is the crucial point at which an institution and prospective students come together in the economic system.

The TVET College institutions can increase the probability of the brand selection by adapting their price, service product, distribution, communication, people, processes and physical evidence strategies to affect the probability of exposure and selection to their clients. Although the students go through the evaluation process when deciding on which institution to apply to, it is the academic institution that makes the final decision regarding the acceptance or rejection of the student's application based on the selection criteria. The decision-making processes regarding which post-school institution to study at is the natural outcome of the evaluation process which is followed by the student completing the application process and awaiting acceptance or not in the selected post-school institution. However, acceptance to the institution does not mean that applicants have been

enrolled; hence the TVET College and student must ensure that the student's acceptance results in final registration.

2.9.3.5 Post-purchase process

The consumer's decision-making processes result in situations where some purchases are followed by purchase dissonance and/or use while other purchases end up with non-use where the consumer keeps or returns the service product without using it. For an example, secondary school-going students may register for a pre-college course but then decide not to further their College studies after completing Grade 12. A consumer's post-purchase consists of dissonance, service product use, product disposition, and purchase evaluation. Product purchase often requires the disposing of the product or the product packaging, but due to the intangible nature of service product in this case, the product disposition is not discussed.

The post-purchase dissonance refers to doubts or anxieties after making a difficult, relatively permanent decision where consumers may feel insecure about their final choices, and any negative information about the chosen service or product causes post-purchase dissonance, which is a conflict resulting from the contradictory beliefs (Du Plessis & Rousseau, 2005:121; Berman & Evans, 2001:236). Schiffman and Kanuk (2004:570) advise that the reduction of doubts or uncertainties the consumer might have about the service or product chosen is an important component of managing post-purchase. For that reason, the TVET institutions must know and understand the magnitude of the influences by the post-purchase behaviour in order to reduce post-purchase dissonance. The probability of the consumer experiencing post-purchase dissonance and the magnitude of such dissonance depend on factors like the degree of commitment to the decision, importance of the decision, difficulty of choosing among alternatives, and the individual's tendency to experience anxiety (Schiffman & Kanuk, 2004:570).

Every time the students select an institution and enrol for a particular course, they add to the buying experiences. The more often the service product is purchased, the more routine the purchase decision becomes. In routine buying situations, consumers may have fewer second thoughts as to the wisdom of a purchase. However, consumers will experience some post-purchase anxiety when purchase is less than the routine as in the case of academic institutions. As the process of choosing a FEC is an important decision, with a higher degree of commitment as well as difficulty in choosing among other post-school institutions, the TVET institutions can expect prospective students to experience a high

level of post-purchase dissonance. Students experiencing post-purchase dissonance may change their study courses or programmes, residences or even institutions they have enrolled with. Realizing that students may probably experience post-purchase dissonance when selecting the academic institution, the TVET Colleges must develop strategies to abate or even prevent post-purchase dissonance.

Different organizations are interested in service product use for many and different reasons. Firstly, consumers use the service product to fulfil their needs. If the service product does not fulfil the clients' needs, a negative evaluation may result. Observing consumers as they use the service product is an important source for developing new service product approaches. Knowledge of how their service products are used by their clients can assist academic institutions when developing new and effective promotion strategies, service products, distribution, and process strategies. The post-school institutions can also benefit from the fact that the use of a one service product may require or propose for the use of another product or service that may lead to multi-category purchases. The TVET Colleges therefore have to teach students the correct way of using their service product in order to minimize confusion whilst increasing client satisfaction which will lead to positive experiences by students, and a positive service product evaluation.

Post-purchase dissonance, product use and disposition are all potential influences on the purchase evaluation process (Arnould *et al.*, 2004:346). During and after purchasing and using a service product, the consumer determines the level of satisfaction or dissatisfaction. Satisfaction or dissatisfaction depends on the relationship between the consumer's expectations and the institution's perceived performance. Students have expectations before selecting and enrolling in the TVET institution based on the information received from family members, friends, the institution and other sources. Once the student's expectations are met, there will be satisfaction, and these satisfied students will probably recommend the institution to others. Satisfied students will continue enrolling at the same TVET institution until completion and talk positively about that particular institution.

The behavioural consequences of consumer satisfaction are threefold namely, the decision to stay with the existing service provider; the engagement in positive or negative word-of-mouth communication; and the intention to change the service provider for a better one (Athanasopoulos, Gunaris & Stathkapoulus, 2001:687). In contrast, the expectations that are not realized by students will lead to students' dissatisfaction and drop-out from the institutions. The TVET Colleges should regularly monitor the early warning signs of unmet expectations to prevent dissatisfaction such as students' poor performance, and lack of social integration or disadvantages due to family or ethnic background. These TVET Colleges must do so by providing meaningful career path planning, social

integration, financial planning, faculty counselling, and by providing advice and support on a continuous basis to minimize student dissatisfaction.

2.10 SUMMARY

Economic changes have a direct influence on many aspects of life including the post-school educational landscape. In this context, the role of the TVET College system is under scrutiny with regard to its responsiveness to providing for a qualified and skilled labour force. In this regard Chapter 2 highlighted some of the major and critical trends worldwide and also in South Africa pertaining to a widening of student participation and increasing student access in post-school institutions. This increased student access, however, does not automatically mean that the post-school institutions' outputs, measured by the rate of completed further education qualifications, increased accordingly. Increased access only indicates a broadening of student population acceptance to further education institutions (Steyn, 2011:1).

A substantial increase in student participation in the FEI impacts negatively on resource availability. Also, accommodating a more diverse student population results in a tension between societies whereby the TVET College institutions find themselves under pressure to meet the complex and often contradictory expectations from the different communities which they serve. Economic climate challenges result in the TVET College system facing budgetary pressure together with the demand for extended services and facilities to address the needs of a widened and diverse student corps.

Considering both the financial and opportunity costs for students, the FECs should be mindful of the ethics of accepting students who are not likely to succeed since there is a large group of students who are under-prepared for College education (Jones *et al.*, 2008:21; Swail, 2014:25). Also, increasing student enrolments impact negatively on class sizes, lecturers' time spent pursuing sources of additional income, partnerships, timetables, additional resource availability, and ultimately, on teaching and learning activities. It is within these contexts that TVET College institutions are battling to address the needs of a diverse student population.

Student choice of a specific TVET College is influenced by factors such as personal preference, parents, TVET entrance exam scores, TVET ranking, advisors, and suggestions by friends. For those reasons, when a FEI accepts the registration of a student, the institution in effect enters a moral, ethical, and legal contract with the registered student to do whatever is reasonably possible to help that student succeed, confirming that the student's choice to enrol at the specific institution was the

right decision (Swail, 2014:23). The fact that many students who lack the requisite skills for successful completion of a TVET College education insist on enrolling at the Colleges is because of a society that informs them that economic success is difficult without a College qualification. Post-school institutions should therefore identify students' needs immediately after admission, and provide academic support timely and constantly to ensure eventual success.

The discussions in this chapter indicated that in any complex organizational system there are strategies influencing future directions. The thorny issue with regard to TVET College education provisioning is to what extent a widening of student access equals the addressing of social conditions that disadvantage some population groups while benefiting others.

CHAPTER 3

STUDENT RETENTION AND ACHIEVEMENT IN POST-SCHOOL INSTITUTIONS

3.1 INTRODUCTION

Chapter 2 introduced some of the major changes and trends concerning widening student participation in the post-school environment internationally and locally. Access to the FEC system and the effective management of student retention and success are important areas of focus when considering the post-school education landscape and its impact on well-being. The search for strategies to increase student retention and success as measured in persistence and graduation rates has become a frequent topic of intense debate at educational conferences, institutional meetings and legislative sessions because of the economic advantages and increased well-being for individuals who obtain College qualifications (College Board, 2009:1; Day & Newburger, 2002; Dee, 2004:1697).

Internationally and nationally, the consequences associated with student drop-out or attrition became a systematic concern for the post-school institutions across the world and became problematic in that the expectations from the human capital have changed and employers expect job applicants to possess certain skills and knowledge that are often acquired through a specialised training (Deary, Watson, & Hogston, 2003:71-81; Wells, 2003:230-236; Wells, 2007:439-456).

The global focus is on the improvement of student retention and completion in all forms of post-school institutions as a means of increasing certain skills and knowledge of the workforce to better meet the challenges of a global economy (Hirschy, Bremer, & Castellano, 2011:300; Yukselturk & Inan, 2006).

Studies exploring what impacts on students' academic successes or failures at the South African post-school institutions revealed that structural barriers for the historical disadvantaged students such as rote learning at educational institutional level, poor career guidance, language of instruction, financial and economic issues are still considerable in the new South Africa (Chen & Lin, 2008: 213-227; DHET, 2013:56, Peterson, Louw, & Dumont 2009: 99-115; Pym, 2013:4; Walton & Cohen 2007: 82-96).

Ogude, Kilfoil and Du Plessis (2012:21-34) and Pym (2013) argue that although there is a range of initiatives focusing on the systemic approaches to enhance the student experience and the

improvement of student retention and achievement, there have been few longitudinal studies over a long period which explored what it might mean to work in a holistic way with a range of curricula, teaching pedagogies and socio-cultural and psychological factors that could improve academic performance and achievement.

It is against this backdrop of continuous changes, limited and diminishing resources leading to a growing concern over accountability within the TVET College system. Also, low student retention, persistence and success rates as well as the reasons students withdraw from the College are the main focus of this chapter.

This section will explore the theories and literature available on student retention, persistence, success and attrition trends and the strategies within the post-school education environment.

3.2 STUDENT RETENTION AND SUCCESS IN CONTEXT

Constructs such as the academic and social integration, involvement in academic, co-curricular, and extracurricular activities have been the subject of continuous debate among scholars as they are influential to student retention and success (Barnett, 2006: 5; Wolf-Wendel, Ward, & Kinzie, 2009). Oftentimes the concepts 'student retention' and 'persistence' are used interchangeably, whereas such terms mean two different things in different set ups (Hagedorn, 2012; Porter, 2003:53-70; Seidman, 2012: 267-284). Generally, various scholars define persistent students as those who continue to attend at the educational institutions until completion of their qualifications irrespective of various challenges, whereas non-persistent students - at times called 'student drop-outs' or 'leavers' – are those students who depart from the College without completing their intended qualifications and never enrol again at any College (Hagedorn, 2012:85; Swail, 2004; Tinto, 2012a). Student drop-out or non-persistent presupposes that students leave the College and never return either to the institution of origin or to any other post-school institution at any time.

Student drop-out or student attrition which is the flip side of student persistence and success is specifically defined as the student's departure from or a delay in the successful completion of the programme requirements within the prescribed period resulting in the country's economic burden increasing (Dodge, Mitchell, & Mensch, 2009:197; Gillis, 2007; O'Brien & Renner, 2002:131-149). The terms 'retention' and 'persistence' are frequently employed interchangeably whilst attempts to differentiate the terms have not been successful. For instance, Hagedorn (2005:89-105) suggested

that student retention is an institutional-level measure of success, and that persistence is an individual or student-level measure of success. Numerous student retention experts claim that higher learning institutions have the ability to demonstrate student persistence and success, but their ability to attract and recruit new students is intertwined with student retention and success (Pascarella & Terenzini, 2005; Kuh, Gonyea, & Williams, 2005:34-64; Astin, 1993; Tinto, 1993).

The above suggests that as a measure of the quality of an institution's overall product, student retention and graduation rates are of interest to the relevant stakeholders such as accrediting agencies, policy makers, the general public or taxpayers, students and their families.

Higher education institutions across the nation, irrespective of size and mission, have recognized the principle that the success of a higher learning institution and the success of its students are inseparable. In addition, it should not come as a surprise that the increasing number of prospective students, families and other stakeholders visiting campuses pose questions regarding student retention and graduation rates. A College's success in recruitment ultimately depends on evidence that its students are satisfied, persist to graduation, and thus receive value for the investment they and their families made in post-school education.

The Department of Education, Science and Training, (DEST) (2005), Long, Ferrier and Heagney (2006), the National Audit Office (NAO) (2007:5), and Seidman (2005: xi-xiv) revealed that student retention and achievement rates have not improved as expected although the post-school institutions have responded to the concerns regarding student retention by implementing programmes and services in an attempt to address students' needs. Despite numerous College initiatives to reduce student departure, there are still students who endeavour to earn College qualifications but fail to achieve their academic goals. For instance, a typical six-year graduation rate for most public institutions in the United States ranges between 50-56% (Berkner, He, & Cataldi, 2002; Crosling, Edwards, & Schroder, 2008; Mortenson, 2005).

Studies conducted in Australia, the United Kingdom and the United States on student retention in higher learning institutions revealed that there are two measures of student retention and succession translated into institutional performance indicators: firstly, the completion rate which is the proportion of the first year students who continue studying until they obtain their qualification, with no more than one consecutive year dropping-out of the educational institution (called 'completion rate'), whereas the second measure of student retention is the continuation rate as the proportion of an

institution's intake which is the students' enrolment in their first year entry into the post-school education (DEST, 2005; Long *et al.*, 2006; NAO, 2007:5; Tovar, 2013). It is important for the College personnel to understand that low student retention and achievement rates impact negatively on both students' future and post-school institutions by bearing the economic burden connected to students' premature departures, and also on the ability of a nation to compete in the global economy (Crosling, Thomas, & Heagney, 2009; Bensimon, 2006, 2007; Friedman, 2005; Seidman, 2005).

Although sometimes critiqued by the educational researchers and practitioners including Bensimon, (2007), Crosling *et al.* (2009), Dodge, Mitchell and Mensch (2009), Tinto (1975, 1993:92), interactionist theory of student departure from educational institutions has received the most attention since it was first introduced to the higher learning institution circles because of its relative importance and frequent use. Consequently, student persistence and success can be achieved through the effective application of Tinto's student integration model, which defines student persistence or attrition as a longitudinal process of interactions between the individual, the academic and social systems of the College during which the student's experiences in those systems continually modify that particular student's goals and institutional commitments leading to varying forms of student persistence or drop-out (Tinto, 1975:94, Swail, 2004:8).

For that reason, more than ever before the post-school education administrators must be cognizant of the reasons students depart from the educational institutions prematurely and determine what should be done to mitigate factors contributing to students' withdrawal whilst assisting them in achieving their academic and career goals (Bensimon, 2007; Crosling *et al.*, 2009; Dodge, Mitchell, & Mensch, 2009; Tinto, 1975, Tinto, 1993; 2005).

Post-school institutions need to acknowledge that sometimes students stop attending at the College for a specific period of time, or transfer to another institution of learning with the intent to complete their qualification or programme of study (Bensimon, 2007; Berger, Ramirez, & Lyon, 2012; Hagedorn, 2012; Mortenson, 2012; Tinto, 2012b). In this regard the higher learning institution administrators must differentiate between student retention as an institutional measure, and student persistence as a student measure. Student retention refers to providing an account of the number of students remaining within an institution, a programme, a major, or a course for a specific period of time whilst the student persists (Hagedorn, 2012:85; Deil-Amen, 2011; Karp, Hughes, & O'Gara, 2010; Lundberg & Schreiner, 2004).

Increasing student access and student retention simultaneously in this changing post-school landscape calls for the TVET College education to positively respond to the needs of the students, and enhance their academic satisfaction (DHET, 2013:12; Rendón *et al.*, 2004).

In a competitive post-school environment where the TVET College operates, the understanding of students' individual level, social level and institutional level as the major determinants of student retention and achievement can assist institutions on how best to serve students effectively and efficiently through their student retention and achievement strategies (Barnett, 2010; Bensimon, 2007; Braxton & McClendon, 2001; Cejda & Hoover, 2010). It is also important for the TVET institutions to understand the institutional opportunities that can integrate students in ways that recognize and embrace the cultural capital of students from different demographics (Jensen, 2011:1). The next fragment concerns the predictors of student retention and success in the post-school institutions.

3.3 PREDICTORS OF STUDENT RETENTION AND SUCCESS

The main concern in the higher learning institutions across the world is the retention and success of students in their studies which is also closely linked to increasing access for historically disadvantaged student groups, student diversity and educational accountability processes (Crosling *et al.*, 2009). Largely student retention and success impact students' future chances of employment, financial implications for those students and their families' financial gains, and for the society and the economy through the loss of potential skills and knowledge as well as the financial and reputational implications for the post-school institutions.

In support of this notion Quinn, Thomas, Slack, Casey, Thexton, and Noble (2005), and Yorke and Longden (2004) emphasised that students who withdraw from the educational institutions may still benefit from the acquired skills, whereas the increased confidence and life experiences in the current competitive and globalised higher education market, the reputational fall-out of low student retention and high student attrition rates damage the institutions' reputations.

Crosling *et al.* (2009: 9-18) and Tinto (1993:92) emphasised that Van Gennep's (1960) work on social anthropology hinges on the three different stages which the individual student must undergo if an orderly transmission of the beliefs and norms of the society to the next generation of adults and/or new members is to take place, namely:

- separation of individual from the previous associations;
- transition where the individual begins to interact with those from the new group; and
- incorporation where the individual takes on new patterns of interaction with members of the new group.

Consistent with the above views, Tinto (1993:94) argues that the College students are expected to undergo a series of changes if they are to become integrated into the College environment and its academic activities so that they become successful members of the College community. The application of these changes to a longitudinal process ultimately accounts for student persistence and the time-dependent process of student departure.

The South African higher learning institutions also experienced an impressive growth in student numbers and the historically white institutions experienced a dramatic shift in demographics where black students now account for between 68% and 72% of enrolments in higher learning institutions, but the number of these students who successfully complete their studies is alarmingly low (Brüssow, 2007; Smith, 2011). Similarly, the National Planning Commission (NPC, 2011:16) and Letseka and Breier (2008) revealed that race remains a major determinant of graduation rates in our higher education institutions where the average graduation rate for white students is more than double that of black students. Furthermore, the completion rate for black students is less than half of the completion rate of white students and these figures are particularly low where first generation students are involved (NPC, 2011).

In part, this low throughput rate may be attributed to a difference in life experiences as a result of students' social, educational, cultural and economic backgrounds, which manifest in unequal levels of readiness for studies in higher education as well as various institutional factors (Van der Berg, 2008). Although institutions of higher learning in South Africa went to a great length structurally to accommodate and include black students with regard to access to post-school education, there remains evidence that these changes were insufficient to address educational disadvantages (Hannaway, 2012; Steyn, Harris, & Hartell, 2011, Van der Berg, 2008).

The next section deals with the academic and non-academic factors, student support services, demographic characteristics, student sense of belonging and student motivation.

3.3.1 Academic factors

The holistic approach to student retention and achievement include all members of the College, cutting across institutional departments responsible for student retention via a wide-range of programmes and initiatives designed to support student retention by addressing both formal and informal student experiences inside and outside of the classroom (Kadar, 2001; Keels, 2004: 32; Lehr, 2004; Salinitri, 2005; Thayer, 2000; Tinto, 2000; Walters, 2004; White, 2005). It is also true that the College holds high expectations and requires active involvement from students in the learning activities so as to improve their academic performance and create an environment that encourages students to navigate within the College culture, meet their expectations and eventually graduate within the prescribed period (Barnett, 2010; Bensimon, 2007; Habley, 2004; Tinto, 2004). For Day and Newburger (2002), Dee (2004), Hagedorn (2005), and Jensen (2011) students' academic performance, institutional, social and cultural integration in the post-school institution environment are the major determinants of student retention and success.

The next section focuses on student orientation and induction, students' cognitive factors, student engagement and involvement, learning expectations and experiences, curriculum delivery, student-centred active learning, formative assessment, and pedagogical challenges.

3.3.1.1 Student orientation and induction

The majority of the post-school institutions introduced longer and thinner induction programmes that are usually compacted into one or two weeks immediately after registration whereby the new students are introduced to the wider higher education environment via more student-centred strategies to enable the majority of students to learn about and understand the expectations and culture of the institution of higher learning where they have enrolled (Layer, Srivastava & Stuart, 2002; Thomas, Woodrow & Yorke, 2002; Quinn *et al.*, 2005; Yorke & Thomas, 2003). For Crossling (2009) and Thomas *et al.* (2005), this revised student induction approach provides an effective opportunity for the first year students to assimilate and make sense of the information provided in order to openly engage with the available students and staff through a range of activities so that they feel accepted and that they belong to that College community.

Unfortunately, Jones *et al.* (2008), Wilson-Strydom (2012), and Zulu (2008) are of the opinion that orientation programmes are not always useful for poor students who are often busy sorting out administrative registration details during orientation, financial aid and housing during the first few

weeks resulting in missing out on crucial information about the academic matters and about the support services available to students (Jones *et al.*, 2008). In addition, the higher learning institutions should provide a student orientation programme that takes place over a longer period of time.

This early engagement with students include the provision of timetables to students, course materials and reading lists, academic programme, or materials accessed via various forms of the learning environment benefiting students by preparing them for their course, demonstrating what will be expected of them, and assisting them to feel a part of the institution. In support of this view, Ward, Crosling and Marangos (2000:35-44) state that the high learning institutions need to improve and increase their interaction with students prior to students' entry into the College in an attempt to develop institutional and course commitment and engagement. Also the integration of student orientation and induction processes into subject specific components assists students to swiftly adjust to the context of their field of studies, something which is also important. Arguably, students who are actively engaged during student orientation and induction, deriving meaning and understanding from their studies by demonstrating a deep approach to learning, are more likely to remain and continue studying at that College.

Consistent with the above notion, Haggis (2003), Malcolm and Zukas (2001:33-42), and Pym (2013:8) emphasised that the post-school institutions students' activities outside the formal classroom provide suitable opportunities to promote social connectedness through interactive interventions by sharing the subject knowledge, academic, leadership skills and broad life. Implied here is the view that students' progress must be monitored constantly with a strong focus on both academic and psycho-social support (Lee & Robbins 2000: 484-491; Martin & Dowson 2009:327-365).

To adapt to these continuous student orientation and induction demands, the South African TVET Colleges student support services should work both proactively and reactively by offering effective academic and social support focusing explicitly on the transition to the TVET College education. In that regard student orientation and induction should focus more on a range of meta-cognitive skills such as critical thinking, collaborative learning, language and communication skills, career planning, and time and stress management (Kuh *et al.*, 2005; Pym, 2013).

3.3.1.2 Students' cognitive factors

International and local studies identify student cognitive factors which relate to the intelligence, knowledge and the academic ability the student brings with him or her to the learning environment as one of the significant predictors for student persistence and the attainment of College success (Hagedorn, Lester, Moon & Tibbetts, 2006; Kiser & Price 2008; Makuakane-Drechsel & Hagedorn, 2000). These cognitive factors are directly related to the student's ability to comprehend and complete the College academic activities that can be measured by variables such as the course selection and completed high school scores, aptitude, or extra-curricular involvement in the academic-related areas. The individual student's cognitive, attitudes and satisfaction prompt the student's decision to either withdraw from or persistent with the academic institution where they have enrolled (Bean & Eaton, 2001:74; Trainin & Swanson, 2005:269).

In fact, students' commitment and problem-solving ability in relation to student persistence and achievement which determines students' decision-making to either remain at or withdrawal from the College can be controlled through a set of social and cultural values instilled in such students where the social and cognitive factors interconnect to form the decision-making process (Allen, Robbins, Casillas & I. Oh, 2006:647; Tinto, 1975, 1993). Furthermore, Jensen (2011:1) and Nes, Evans and Segerstrom (2009:1889) advise the academic institution personnel to regularly monitor students' academic performance, student attitudes and satisfaction, and dispositional and academic optimism which are associated with better motivation and adjustment since they can impact student retention and reduce student drop-out rates. In this regard with an increased self-efficacy and a belief in a positive outcome, students can succeed in their academic journey irrespective of whether or not they are optimists.

On the contrary, an array of scholars has shown that students have complicated and different reasons for their withdrawal from the programmes of studies, and that their decisions to drop-out can be seen as rational and positive from the point of view of the students (Adamson & McAleavy, 2000:201, Freeman 2000; Braxton & McClendon, 2001; Cejda & Hoover, 2010:135-153; Deil-Amen, 2011:54-91; Karp, Hughes, & O'Gara, 2010:69-86; Lundberg & Schreiner, 2004).

Accordingly, Adamson and McAleavy (2000), Davies, Bamber, Rudge and Stobo (2000), Habley and McClanahan (2004), and Tovar (2013) argue that the widespread practice of recording only the selected or the main reasons for student drop-out by College officials misrepresents the student

decision-making process and gives a false picture of the reasons students withdraw from their studies, whereas student withdrawal is divided into three broad categories, namely, the College, work, and personal or family related factors.

TVET College students' success with their studies depends on factors such as their natural aptitude and existing knowledge of the subject matter, the effectiveness of the instruction which they receive, and their motivation to work hard enough to succeed (Thiel, Peterman & Brown, 2008:45; Davidson & Beck, 2019). Thomas and Quinn (2003:127) report that most countries strive to retain young people in the education system until the completion of the TVET education and preferably beyond. In order to retain their students, the TVET Colleges are expected to reduce student attrition and dropout; emphasize the quality of education; organize additional support courses where needed; diversify options and pathways for students; ensure effective academic support, career guidance and counselling services for students; and combine technical and vocational education and training with work experience through apprenticeship or job placement programmes. These measures are important as student success with the vocational-related national certificate is generally poor, as demonstrated by the low throughput rate of the 2007 student cohort who completed their qualification in 2009 (DHET, 2012:22; 2019).

The student decision-making process could justifiably be attributed to a continuous weighing of the costs of continuing with their studies or abandoning their programme of study due to multiply difficulties these students faced while still studying at their specific institutions. For that reason, it is important for the TVET College institutions to determine exactly why their students drop-out and introduce possible mitigating factors to minimise student withdrawal.

3.3.1.3 Student engagement and involvement

Student engagement is considered as the amount of time and energy that students purposefully channel to their involvement in the educationally beneficial practices that promote their learning and development (Horstmanshoff & Zimitat, 2007:703-718; Kuh, 2001, 2009; Lawrence, 2005:16-33). Student engagement also refers to the efforts that learning institutions place in investing and in promoting these activities to effect student success and academic attainment (Kuh, 2009; McClenney, 2004; McClenney, Marti, & Adkins, 2006). In brief, student engagement is about two elements, namely what the student does and what the institution does. Engagement is about two parties who enter into an agreement about the educational experience (Kuh, 2003; 2009a; Wolf-Wendel *et al.*, 2009: 413).

Student engagement is an ambiguous term, poorly defined and difficult to measure which is not simply about good classroom behaviour or attendance, but a connection with teaching and learning. In other words, student engagement is about what both the student and the institution do in an attempt to improve student retention and success where the College personnel have the responsibility to provide a setting that facilitates students' engagement and learning, that gets students to participate in activities that lead to success (Bryson & Hand, 2007; Kezar & Kinzie, 2006:150). Student engagement also connotes the quality of students' effort and students studying for meaning and understanding that reflect a constructivist approach to the learning activities (Bryson & Hand, 2007; Carey, 2006; McClenney, 2007:137-146).

Studies on student engagement and involvement have gained considerable attention over the past decade, primarily in response to the demands from the public, legislators and accreditors for higher education institutions to demonstrate the link between the College attendance and successful student outcomes (Horstmanshof & Zimitat, 2007:706; Chen, Lattica, & Hamilton, 2008:339-352; Tovar, 2013; Trowler, 2010). For instance, world-wide, enhancing student engagement is generally acknowledged as the key factor and a fundamental strategy for improving student retention and success outcomes in the College education environment (Horstmanshof & Zimitat, 2007; Chen *et al.*, 2008). Common to some theoretical models are classic constructs such as academic and social integration or involvement which is currently called engagement in academic, co-curricular, and extracurricular activities, but how these constructs have evolved or been defined over time has been the subject of debate among scholars (Barnett, 2006:5; Wolf-Wendel, Ward & Kinzie, 2009:407-428).

It is worth noting that student engagement is ambiguous and difficult to quantify because some students who remain quietly sitting at the back of the classroom not participating in discussions or completing their work are somehow as disengaged as students who are talking with friends or students who did not attend their classes. This may be why most analyses and attempts to quantify student engagement focus on more tangible negative behaviours and learning outcomes. Researchers concur that the student engagement framework must distinguish between cognitive, behavioural and emotional factors which are defined as follows:

- **Cognitive engagement** is unclearly defined, and is therefore difficult to measure. It can be understood as students' psychological investment in their own learning processes

(Department of Education and Training (NSW) 2006; Fredericks, Blumenfeld, & Paris, 2004; Willms, 2003).

- **Behavioural engagement** refers to students' participation in learning and classroom activities. This includes adhering to behaviour rules, attending lessons as required and being punctual (Department of Education & Early Childhood Development, 2013; Finn & Zimmer, 2012; Fredericks & McColskey, 2012; Willms, 2003).
- **Emotional engagement** refers to the relationships between students and their teachers, classmates and school which have also been called identification with school and learning practices (Finn & Zimmer, 2012; Fredericks & McColskey, 2012).

Krause and Coates (2008:493-505) advise that the College personnel must encourage and assist students to be engaged during the students' first year of study at the College since it is the foundation for successful study in later years. Consequently, Coates (2007:122), McClenney (2004) and Trowler (2010) emphasised student engagement which is a broad construct, encompassing the salient academic as well as certain non-academic aspects of the student experiences comprising the following:

- active and collaborative learning;
- participation in challenging academic activities;
- formative communication with academic staff;
- involvement in enriching educational experiences; and
- feeling legitimated and supported by the post-school environment.

It is not uncommon that researchers and practitioners often use the meaning and measurement of student engagement and involvement constructs interchangeably whereas each of these concepts is unique and important to student development and success (McClenney, Marti & Adkins, 2006; Wolf-Wendel *et al.*, 2009:408). In addition, it is important to understand how these concepts along with integration have changed or have been reframed over time whereby student involvement is a temporal representation of activities whereas student engagement assigns greater responsibility to institutions in facilitating student success (Wolf-Wendel *et al.*, 2009:418).

The other condition for student success is the involvement or engagement in educationally beneficial activities especially during the first year of College leading to different forms of social and academic belonging and resulting in the sense of belonging at their institution (McClenney *et al.*, 2006a; Tinto,

2012a:66). In the context of the classroom activities, student engagement occurs in specific pedagogies such as collaborative learning that may help to promote student retention and success to a greater degree than traditional lectures.

The positive faculty-student interactions where students are involved in the utilisation of the available resources that promote academic success such as learning centres, tutorials and internet facilities in the learning institution have been demonstrated to positively influence student retention and success (Habley, 2004; Retention Study Group, 2004; Kezar & Kinzie, 2006:149). In addition, when the academic support services are linked to students' learning activities in the classroom of credit bearing courses, the more likely students are to engage with the services and to succeed (Habley & McClanahan, 2004; Tinto, 2004). Programmes that encourage faculty-student interaction as well as the engagement with academic pursuits such as research encourage students to integrate into the College education (Needham, 2018; Chen *et al.*, 2008:340; Retention Study Group, 2004).

Students consider themselves marginalized when they believe they do not fit into the group of students, which leads to negative outcomes such as self-consciousness, irritability and depression, and eventually they ask themselves if they matter (Evans, Forney & Guido-DiBrito, 1998:27; McClenney *et al.*, 2006b). Addressing the feeling of being marginalized is also important to student retention and success as it is an antecedent to student involvement in College activities and programmes (Habley & McClanahan, 2004; Schlossberg, 1989:5-15). The important step to become actively engaged and involved in the College academic activities is for students to interact with their peers.

Regarding the understanding of student engagement and its impact in relation to student retention, it is vital that students are engaged and involved in other areas of College life so that they experience academic success in their College studies (Habley & McClanahan, 2004; Pascarella & Terenzini, 2005). In line with these views, Pascarella and Terenzini (2005) and Tinto (1993) emphasised that students' interaction with their peers make participation in campus activities and student organizations meaningful by reinforcing the academic learning that takes place in the classrooms which then permeate into other areas of College life. Inferred from the above discussion is the view that failing to become involved in College activities, organizations, and extracurricular activities, which promote involvement and integration of life, can lead to higher chances of attrition for some students. In accordance with Tinto's contention regarding students' engagements and involvement, it

is imperative for the South African TVET Colleges' administrators to work diligently to provide students with opportunities to get involved with campus organizations and activities (Tinto, 1993).

3.3.1.4 Learning expectations and experiences

Crosling *et al.* (2009), Horstmanshof and Zimitat (2007) and Lawrence (2005:16-33) emphasised that the provision of meaningful learning experiences revealed that teaching and learning, which depend on the collective effort of the faculty, staff and students, is one of the important tasks for the post-school institutions. Both staff and students are expected to be fully aware that students enter the higher learning environment with their own expectations of learning experiences from their previous schools that has an impact on how students respond to this new environments and also act as precursors as the students make academic decisions such as choice of major subjects as well as whether or not to remain in certain fields of study or College in general (Bosch, Hester, MacEntee, MacKenzie, Morey & Nichols, 2008; Kim, *et al.* 2010; Kuh, Gonyea & Williams, 2005; Pike, 2006; Van der Meer *et al.* 2010).

An accurate measure of student performance with regard to national standards has limitations, especially when considering the percentage of students who enrol and succeed in achieving their academic goals (Pike, 2006; Richardson, 2009:127; Van der Meer *et al.*, 2010).

Related to these limitations is the fact that many students enter higher education and training through non-traditional entry routes which intensifies the need for institutions to provide the best transition from schools into higher education and training institutions. This transition should ensure optimal development of the students' learning in their first year, and their progression with their set academic goals (Kirk, 2008:151; Xu, 2018). The majority of students at TVET Colleges are in the age group 17-24 (Department of Education, 2008:19). The Department of Education argues that students enrol at TVET Colleges not because they are not fit for other means of education and training, but because they have made an informed decision to make a TVET College their preferred institution due to the qualification offerings of the specific institution. Employed and unemployed adults who wish to improve their skills so that they can gain access to better jobs or progress to higher education and training institutions will also be accommodated by the flexible offering of vocational programmes (DHET, 2011:15).

Cook, Rushton, McCormick, and Southall (2005:6) reason that the management of student retention and achievement requires compatibility measures between students' expectations of the programmes

offered by the after-school institution, and students' experiences of the new college environment. This study on the management of student retention and success in the TVET College institutions focuses on those experiences of students which have a significant influence on students' attitudes, expectations and preparedness for success with TVET College education. Scott and Graal (2006:45), and Muwaniki and Wedekind (2018) contend that there are many factors associated with student withdrawal from the educational institution where they have enrolled, with these withdrawals not solely attributable to the student's own input. Sometimes students fail academically not so much because they lack application, but because they misunderstood the institutional expectations which were not communicated to them properly. In this regard Yorke and Longgden (2008:76), and Davidson and Beck (2019) are of the opinion that students' failure to integrate into an educational institution might be attributed to the specific institution failing to provide adequate tuition and support with learning, resulting in failure of the individual student to cope with the new college environment.

Students can easily be disengaged and dissatisfied as soon as they do not realise the relevancy of what they are learning due to the lack of meaningful learning experiences which is an essential factor to student retention, and also imperative for the institutions of higher learning to create valuable and enriching learning experiences within the academic programmes (Bean & Eaton, 2001, Kuh *et al.*, 2005; Moxley, Najor-Durack & Dumbrigue, 2001; Smith & Wertlieb, 2005; Thomas, 2012). Furthermore, students with limited chances to participate in a meaningful learning experience are denied the opportunity to integrate and apply their knowledge obtained during the teaching and learning sessions. Jones (2008) and Long, Ferrier and Heagney (2006) echoed the findings from the study on student retention in Australian and UK by identifying the following as some of the reasons students withdraw from the College:

- poor preparation for post-school education;
- weak institutional and/or course match, resulting in poor fit and lack of commitment;
- unsatisfactory academic experience; and
- lack of social integration, financial issues, and personal circumstances.

On the contrary, Long *et al.* (2006), and Stensaker (2008:60) argue that some students withdraw from their studies for reasons beyond the jurisdiction of the educational institution which include their personal needs and changes in personal circumstances, wrong or second choice of course selected and switching to other courses that meet their interests and aspirations more directly.

The South African government expects the TVET College education to provide a responsive curriculum that enriches the students' learning expectations and experiences leading to the production of an economically independent enlightened citizenry that possesses civic responsibility (DHET, 2013). Academic support and interventions which include constant monitoring the students' progress with a strong emphasis on working proactively in terms of both academic and psycho-social support throughout the studies focus on creating a developmental and incremental impact, rather than providing social support only (Kuh *et al.*, 2005; Moxley, *et al.*, 2001; Pym, 2013:10).

3.3.1.5 Curriculum delivery

Curriculum is used in divergent ways both within and across the post-school systems, in most cases without a shared understanding of its meaning although it includes teaching and learning, assessment, academic support, student induction, and the programme contents as as the primary way to engage students both academically and socially, and to build institutional commitment and belonging (Berger & Braxton, 1998; Leathwood & O'Connell, 2003; Pike, 2006; Read *et al.*, 2003; Thomas 2002). In fact, curriculum delivery is experienced by all students, albeit the different forms through which teaching and learning are delivered to a group of students from different backgrounds where some of students might not be able to participate in extra-curricular activities, social and sporting events and informal learning and socialising since they live out of the campus, and study as distant and/or part-time students due to personal responsibilities (Askham, 2004; Leathwood & O'Connell, 2003:597-615; Read *et al.*, 2003; Thomas, 2002).

For Bamber and Tett (2001), Dibben (2004), Greenwood (2010), Haggis and Pouget (2002:323-336), and Taylor (2011) curriculum delivery has to be culturally relevant and focus on supporting widening participation and students' socio-economic background, and prepare the graduates for living and working in a diverse society. In highlighting the importance of curriculum development and delivery Barrie (2005), Blackwell *et al.* (2001) and Houghton and Ali (2000) argue that the higher learning institutional curriculum should offer students the opportunity to reflect on employment and other experiences to explore the learning and skills development involved in these activities. In a nutshell, curriculum must be relevant to students' future aspirations and build institutional commitment by reinforcing how successful completion of the course will lead to the chosen career paths (DHET, 2013; Durden & Ellis, 2005; Tinto, 2017:5).

Therefore, TVET College institutions have the duty to support the first year entrants on how post-school curriculum is delivered and students' own experiences and their views of the world, and encourage students to provide feedback on their educational expectations and experiences in order to assist future development of the curriculum in institutions of higher learning.

Also, intensifying the partnerships between the Colleges and potential employers are essential for the work placements that provide work based exposure and work integrated learning opportunities for valuable skills and demonstrable competencies to students and lecturers whereas employers are able to recruit competent graduates from a wider pool (Buthelezi, 2018; DHET, 2013; Glover *et al.*, 2002; Purcell *et al.*, 2002).

In addition, students are increasingly engaged in part-time employment opportunities that offer ways to capitalise on this experience and better prepare students for graduation. For that reason, part of the learning experience should prepare students for graduation in the broadest sense and contribute to the validity and authenticity of the curriculum for all students.

Despite the different modes and forms of teaching and learning activities across disciplines, curriculum forms a platform for the implementation of approaches and strategies that engage students in their post-school institutional experience (Fraser & Bosanquet, 2006:269-284). Albeit it is widely accepted that lecturing personnel can no longer assume that all students have the same background knowledge and expectations, it is difficult to structure classroom teaching and learning approaches to incorporate the interests and experience of all students when the lecturers don't know their students well (Teoh, 2008:52-56). For that reason, Teoh (2008) proposes that when the lecturing personnel know something being experienced by their students, they can organise teaching programmes which facilitate the students' maximum participation, and can ask themselves the following questions in order to know their students better: do I:

- know which students have family responsibilities and which students have work responsibilities?
- consider students' work and family responsibilities when I schedule assignments and examinations?
- arrange for all assignments to be completed at the same time assuming that students have all day and part of the night to do them?
- organise guest lectures at times that suit students with work and family commitments?

The classrooms and lecture theatres provide lecturers with opportunities to model inclusivity by eliminating local jargon from their language of teaching and learning. Although there are students from diverse backgrounds whose appearance does not prompt lecturers to make their teaching more inclusive, in general students' appearance can alert lecturers to the fact that there is a need for employing broader approaches to their teaching and learning activities.

3.3.1.6 Student-centred active learning

There is a consensus that interactive as opposed to didactic teaching improves academic success and promotes the inclusion of learners who might feel like outsiders (Crosling *et al.*, 2008; Parker *et al.*, 2005; Haggis & Pouget, 2002; Thomas, 2002; Bamber & Tett, 2001). The traditional educational model had a rightful place in the time when knowledge was not widely accessible which left the lecturer with the task of fulfilling the role of the conveyor of the knowledge. For technological reasons things changed to a situation whereby students play a more active role in their learning activities which is often associated with the experiential, problem-based and project-based learning, and other forms of collaborative learning, and with less reliance on the large lecture format (Bamber & Tett, 2001; Duncan, 2017; Thomas, 2002; Tight, 2002:106). In addition, there is a consensus that interactive learning, as opposed to didactic teaching, improves academic success and promotes the inclusion of students who might feel excluded (Bamber & Tett, 2001; Crosling, As-Saber, & Rahman, 2008; Haggis & Pouget, 2002; Parker *et al.*, 2005; Thomas, 2002). Experiential learning as one of the student-centred learning approaches relates to the knowledge and skills gained through life and work experience, whereby different interpretations have extended the notion of experiential learning to meaningful discovery learning.

Consequently, student-centred learning has given rise to approaches such as problem-based and project-based learning, which are educational approaches that make use of the learning strategies suggested by the theories of experiential learning within the classroom context (Tight, 2002; Van der Bijl & Taylor, 2018). These forms of teaching and learning promote collaboration among students to solve problems, and by using realistic problems or situations for learning, a deeper understanding of the relationship between theory and practice can be developed and understood by students (Tight, 2002). According to Askham (2004), Jones and Thomas (2005), and Košir and Pecjak (2005) the teaching and learning modes which actively involve students, rather than them being passive recipients of knowledge from the lecturer, show respect for students' views and experiences, and then

reduce the problem of diversity and differences within a transformative model of higher learning institutions.

In line with this view, Thomas (2002) and Tinto (1998; 2000) assert that the benefits of student-centred learning, which include greater staff-student and peer interaction, can be understood in relation to the social and emotional dimension of learning which improve students' sense of belonging and their level of motivation and achievement. In that regard students benefit and enjoy by being part of the learning communities, which forged interaction between students to facilitate their learning both inside the classroom and beyond. For Warren (2003:4) student-centred, discussion-based and group based learning activities promote student participation and interaction, more willingness by students to express their ideas, and improved communication among students in culturally diverse classes.

Bamber and Tett (2001:8-18), Comfort, Baker and Cairns (2002), and Warren (2002) advised that the mixture of semi-integrated and integrated curriculum models offer better prospects and provide skills and academic support to students, which assist a wide spectrum of students to persist and succeed with their academic undertakings. Accordingly, Dodgson and Bolam (2002), Laver *et al.* (2002), Pym (2013), Thomas *et al.* (2002), and Warren (2003) reveal that integrated approaches do not only provide students with access to various academic and pastoral services, but also encourage students to use the facilities such as the accommodation office, sport and recreation, and the registry. The teaching structures, methods of teaching, and interventions need to be varied and continually responsive to a range of life experiences, styles of learning and needs since one size does not fit all (Pym, 2013:8).

The post-school education personnel in South Africa need to create an environment for students throughout their academic programme that will enhance and develop their learning experience, their academic success and their broad graduate attributes and qualities that are sensitive to the needs and realities in the TVET College environment (Pym, 2013). The intervention programme focuses on developing the spirit of optimism and assertiveness; helping students to think more realistically and flexibly about the problems they encounter; and nurturing their capacity for meta-reflectivity to act as a pivotal dimension of agency regarding students' active learning (Bandura, 2001:10; Bray, Gooskens, Kahn, Moses & Seekings, 2010; Wolff, 2018).

3.3.1.7 Formative assessment

First year students struggle to smoothly transit from a more structured learning experience from their former schools to the greater autonomy in the College educational setup. George, Cowan, Hewitt and Cannell (2004) and Povey and Angier (2004) argue that formative assessment, especially on post-school institutions, offers an integrated and structured approach to equip students with the information and skills they need to make a successful transition into higher education and to continue to succeed academically.

The nature of formative assessment used is significant to students' experience and their engagement with the course in building confidence and a positive attitude towards learning and successful interaction with the cognitive demands of the programme. Similarly, Bamber & Tett (1999: 465-475) found that the post-school students, and particularly mature students, benefited from formative feedback. For example, formative assessment can offer students:

- space to explore, try out different approaches and develop their own ideas,
- opportunities to become aware of their own progress and find out about themselves as learners,
- courage to negotiate with tutors and/or peers on matters of assessment including the allocation of marks (Povey & Angier, 2004).

The provision of feedback on students' assessment at various TVET College institutions is often limited to giving the marked scripts back to the students. Lecturers need to conclude their teaching and learning activities by providing formative assessment feedback that is integrated into the learning experience to provide a vehicle for interaction between students and staff, thus helping to develop student familiarity and confidence to approach staff for additional clarification and guidance if necessary.

3.3.1.8 Pedagogical challenges

The study conducted on teaching the under represented groups in Australia concluded that, while the classroom provides the opportunity for students to either actively engage or disengage, for the large number of students, particularly those with work and family responsibilities, the time spent in class is the only experience of their post-school institution life. In addition, what goes on in the teaching

and assessment activities plays an important role in the retention and success of students from under represented groups (Ferrier & Heagney, 2008:113-120; Long & Hayden, 2001; Yorke, 2008).

The South African post-school institutions are characterised by the pedagogical dimensions where there is a pedagogical distance manifested by the different teaching and learning practices between schools and higher learning institutions (Jansen, 2009; Lewin & Mawoyo, 2014). The post-school lecturers do not involve themselves in monitoring student engagement in the academic activities since students are expected to manage their studies without the lecturers' supervision. Some students are unable to cope with the transition to the higher learning institutions leading to them withdrawing or failing due to factors that contribute to pedagogic distance such as:

- Lack of family to support the integration and adjustment into the higher learning institutions where the most of the historical disadvantaged students are first generation students with no reservoirs of networks with a background in the post-school environment (Slonimsky & Shalem, 2006, Letseka, 2008:305-323; Jones *et al.*, 2008).
- Failure to cope with the post-school open approach as opposed to the closed nature of the school models, which results in students missing lectures, not preparing adequately for tutorials, attending too many parties, drug and alcohol abuse, inability to balance academic and social life, missing tests, poor concentration span, and inadequate preparation for assessments (Zulu, 2008:30-47).
- Lack of reflective and critical skills needed for academic writing in the post-school environment (Jones *et al.*, 2008).
- Difficulty in coping with the increased workload and intensity of work at post-school institutions, exacerbated by lecturers who do not pace themselves to ease students into the rhythm, and others who take pleasure in informing students that the class would be decimated significantly by the middle of the year (Jansen *et al.*, 2010).
- Enrolling for programmes that they do not like because of inadequate information about course contents (Ravjee, Hames, Ludwig, & Barnes, 2010).

3.4 NON-ACADEMIC FACTORS

Globally, student retention and success are inevitably comparative in nature resulting in the post-school institution policymakers responding to questions regarding the higher learning institution's

performance, mainly by comparing its students' persistence and graduation rates with those peer provincial and national higher learning institutions (Ascend Learning, 2012:1; Tinto, 1975, 2004). Despite that Tinto's (1975, 1987) model of student departure is regarded as the cornerstone to student retention and persistence as it promotes the academic and social integration experiences both inside and outside the classrooms. Some studies, however, have criticised this model's validity since its first introduction.

For Bailey and Alfonso (2005), Barnett (2010), Bensimon (2007), and Swail (2004) the student departure model places a significant onus on the students, while de-emphasising the role of the institution and institutional faculties, staff, and administrators either promoting or impeding student retention and success. In that regard Bensimon (2006, 2007), Cejda and Hoover (2010), Rendon, Jalomo and Nora (2000) maintain that the student departure model does not sufficiently account for the experiences and expectations of the impacted groups such as historically under represented groups, first-generation to post-school education, and the low-income students as well as students travelling long distance to attend the Colleges.

The researcher attests that the support, criticism and revision of Tinto's model of student departure by various studies over the past years has significantly influenced how educational scholars and practitioners view student retention and graduation, and how to determine the key and relevant factors contributing to the management of student retention and achievement in the post-school institutions (Ascend Learning, 2012:1; Rendón, Jalomo, & Nora, 2004; Swail, 2004:8). The TVET College education system should identify and match the needs of individual students, a student cohort or the student community as a whole. Individual Colleges must guard against making assumptions that students drop-out due to certain factors without applying the correct analyses of the different forms of student withdrawal.

3.4.1 Social background

National and international studies on student's social background in relation to factors that impact the students' academic performance and success revealed that both social and academic imperatives contribute to academic performance among the post-school institutions' students (Coutinho, 2007:39-47; Dennis, Phinney, & Chuateco, 2005:223-236; Malefo, 2000:40-45; Nonis & Hudson, 2006:151-159; Petersen, Louw, & Dumont, 2009:99-115; Van der Walt & Pickworth, 2007:356-365; Walton & Cohen, 2007:82-96).

Also students' social background plays an important role in student academic performance and retention decisions (Anderson, Case, & Lam, 2001:37-58; Gillborn 2001:21-26; Hicks, 2003; Ishitani 2003: 433-449; Barry 2006; Clarkson 2008; Hossler *et al.*, 2008; Hossler *et al.*, 2009). Social aspects ranging from socio-economic, environmental to psychological are some of the important factors that impact students' performance at the post-school institutions (Clarkson, 2008:121-141; Hossler, Ziskin, Moore III, & Wakhungu, 2008; Hossler, Ziskin, Gross, Kim, & Cekik, 2009). Accordingly, Rendón *et al.* (2000:585) and Tierney (1992:603-618) challenge the very idea that for students to become integrated into the academic and social realms of the higher learning institution they must renounce their former communities and assimilate into the prevailing dominant College culture. Their explicit argument suggests that Tinto's model misinterpreted the anthropological notion of ritual which created a theoretical construct with potentially harmful consequences for various racial and ethnic groups.

In a synthesis of research exploring student retention and success several scholars acknowledged the limitations of Tinto's student departure model by recognizing that the process of student retention differs from one College to another institutional type and that breaking connections with students' former communities such home is not necessary to successfully transition and succeed in College education (Barnett, 2006, 2010; Bean & Eaton, 2000; Braxton & Hirschy, 2005; Braxton & Lien, 2000; Braxton & McClendon, 2001; Crisp & Nora, 2010; Deil-Amen, 2011; Hagedorn, Maxwell, & Hampton, 2001:243-263; Hoffman, Richmond, Morrow, & Salomone, 2002: 227-256; Karp, Hughes, & O'Gara, 2010:69-86; Nora, Barlow, & Crisp, 2005:129-153; Nora & Crisp, 2012:229-250; Rendón *et al.*, 2000; Tinto, 2006:4; 2012b:254).

The South African public demands to know and understand the influence of the social factors impacting student retention and achievement, particularly in the post-school institutions suggesting that the TVET Colleges must rigorously examine what influences students' performance and success. This section focuses on the social background aspects outside the academic settings such as the language factor, being a first-generation student, living or study space, and family structure.

It is worth noting that most academic discourse on how social factors affect the students' academic progression and achievement is based mostly on international studies from which it is important to learn.

The next section discusses the language factor, first-generation students, study and living space, family structure, institutional and practical issues, student support services, and financing college education studies.

3.4.2 Language factor

The language differences among students as well as between students and lecturing staff create the linguistic dimension of pedagogic distance in the academic institutions. According to Lewin and Mawoyo (2014:57), and Van Zyl-Schalekamp and Mthombeni (2015:34-40) the English-first language speakers are supposed to think and work quickly in English, and manipulate the subject content to their own advantage at the expense of those who do not master the language. It could be argued that this practice enables those who master English to continuously achieve better marks due to a clear understanding of the language in which the programmes in the post-school institutions are presented (Jones, 2008; Leibowitz, 2005:669; Van Zyl-Schalekamp & Mthombeni, 2015; Webb 2000: 13).

The language of instruction in most South African higher learning institutions is predominantly English which creates a barrier for most non-English students, especially students from the rural areas and township schools. In pursuit of this view, Lewin and Mawoyo (2014:57), van Zyl-Schalekamp and Mthombeni (2015:34-40) found that the language factor poses multiple learning challenges for students in the South African higher education environment wherein English is the medium of instruction for teaching and learning whilst the majority of students use other languages than English in their homes. Implied here is that the majority of students do not only have to master the content of a course, but also have to grasp the language and the concept before understanding the basics of the curriculum being delivered. In highlighting the impact of the language factor, language constitutes a huge barrier for parents in participating in their children's post-school education, because of the use of different languages while at their previous schools (Gillborn, 2001:23).

Despite the fact that some post-school institutions developed the reading and writing laboratories to assist students with writing problems, the English language remains problematic leading to some students losing interest in some subjects due to the lack of comprehension (van Zyl-Schalekamp & Mthombeni, 2015). For that reason, Amelink (2005), Hagy and Staniec (2002:381-392) and King (2002) argue the lack of efficiency in English largely contributes to the low student academic achievement and high student drop-out rates in the post school institutions, particularly for those

students from non-English speaking backgrounds. Accordingly, Amelink (2005), Hagy and Staniec (2002), Jones *et al.* (2008), and King (2002) postulated that to most students from township and rural schools language becomes a verbal communicative barrier, hindering them from developing academic skills like participating in class discussions, learning to express themselves and defending a position, and asking questions in classrooms.

The inability to understand and correctly speak English by both black students and white Afrikaans-speaking students in South Africa causes language difficulties when conceptualising the learnt content which also determines the rate of social integration in an educational environment (Clarence, 2009:20; Jansen, 2009; Mawoyo & Hoadley, 2009). The above arguments suggest that the intermittent switching from one language to another by students, and often in adapting to the different settings when the students are at their homes and at College, creates a major disturbance for most students.

Inferred from the above discussion is the view that the medium of instruction influence both the educational achievement and the reason the majority of students cannot critically engage in discussing their academic work. Non-English speaking students in South Africa are expected to communicate in a language they do not even know how to use, leading to such students being compelled to think in their indigenous languages and translating their thoughts into English to create meanings.

3.4.2 Challenges experienced by first-generation students

Ishitani (2003: 434) and van Zyl-Schalekamp and Mthombeni (2006) define the first-generation students as those who are from the households wherein their parents or siblings never studied at higher learning institutions before. The non-first-generation students as opposed to the first-generation students have a better understanding of what is happening and is expected from them by post-school institutions since their family members could assist and guide them in managing their student life, getting financial help and how to deal with their academic pressures (Ishitani, 2003; Hicks, 2003:09; Orbe, 2004:138 van Zyl-Schalekamp & Mthombeni, 2006).

In a related view, Ishitani (2003) found that the first-generation students in the USA had lower critical thinking abilities which need less support as compared to their siblings when attending their Colleges. These siblings spent less time with their peers and their teachers discussing their experiences and

their future expectations about the institution of higher learning education during the time they were still at their schools.

As the College environment is a place where students are constantly required to spend most of their time thinking critically, this creates a dilemma whereby these students face both academic and social challenges. This view suggests that post-school institution students must draw confidence and the best advice from the family members to deal with emotional stress and develop coping mechanisms in the new College environment (Choy, 2000; Fletcher, 2012; Kelp Kern, 2000); Thayer, 2000). In a related view, Amelink (2005:34) found that the first-generation students' daily experiences with academic and student services at campuses influence their academic success and achievement. Students have to possess the analytical and problem-solving skills, learn about other cultures and races, learn how to satisfy study requirements, and simultaneously deal with external commitments.

Unfortunately, the first-generation students have no one to guide them through their academic journey; hence they have to figure out how to proceed with their studies while experiencing those academic related problems (Choy, 2000; Kiyama, 2010; Perez & McDonough, 2008; Thayer, 2000). Ceja (2006) and Hicks (2003:6) emphasised that first-generation College students often experience a form of culture shock when they begin their studies and concomitantly students may feel that they do not fit in socially and that their families cannot offer them the needed support.

Research on student retention and success indicate that the financial burden the students' parents have to carry, constant competition with family members over the limited resources, and the minimum academic support provided by the families who do not consider post-school education as a priority are the main challenges experienced by the first-generation students (Amelink, 2005:40; Orbe, 2004: 138; Thayer, 2000). In addition Orbe (2004:138) and Wells (2009:103-128) identified at least three major issues for consideration when dealing with the impact of first-generation students in relation to student retention and achievement; firstly the huge chasm between the student's home and post-school environment; secondly, that little is known about how the first-generation students will deal with the post-school studies in conjunction with cultural identity, race or ethnicity, age, family structure, socio-economic status and gender. Lastly, the first-generation students may be viewed as being better than everyone at home, and be put under pressure to succeed when they are at home, whereas they lack that sense of communication and belonging required by the higher learning institution environment.

Choy (2001), Retention Study Group (2004), and Thayer (2000) concurred and warned the post-school institutions that the first-generation students, particularly those from low-income families, attending at post-school institutions are least likely to graduate since they are twice as likely to drop-out from the institution before the start of the second year of study. The first-generation students' parents are unfamiliar with the College enrolment processes, such as completing applications and financial aid forms associated with successfully negotiating post-school education. Furthermore, the first-generation students are often students from the low-income families and the areas where their previous schools were under-resourced (Retention Study Group, 2004).

The student's first time enrolment at the College is undoubtedly the biggest social change the student has ever undertaken as it presents stress to almost all the first year students, especially to the historically disadvantaged and low-income students (DHE, 2012; Rendon *et al.*, 2000). The manner in which the higher learning institutions provide appropriate support to the students during the College years, both academically and socially, is of profound importance to student retention, persistence, and completion of their studies.

Since cognitive and social factors influence first generation students, TVET Colleges should focus on the provision of student support in areas such as the selection of the relevant course content, tutoring, mentoring, career counselling and instructions in order to support social as well as academic development, ultimately to contribute towards institutional effectiveness. In that regard the setting of the institutional factors on equal ground with cognitive and social factors influencing first-generation students' retention illustrates the important role the College plays and the importance of its knowledge of students' social and academic development which determine the institutional effectiveness (Bensimon, 2006, 2007; Fike & Fike, 2008:68-88; Tinto, 2006).

3.4.4 Study and living space

It is globally agreed that the space plays an important role for studying since it can impact on the human and cultural behaviour, being an important factor in architecture such that the shape, scale, proportion, colour, texture and quality of illumination affect the quality of space (Laiqa *et al.*, 2011:706). According to the Kresge Foundation (2011) student residences are not just places where you live and eat but have increasingly become places which provide the scaffolding for the academic activities. Staying in the student residences is important for the first-year students, which is the point where drop-out rates are particularly high both internationally and nationally (DHET, 2011).

In a related view, Bacolod and Tobias (2005) and Lawson (2001) emphasised that the supply of basic services such as electricity in learning space enhances the concentration of those involved in teaching and learning. Similarly, Laiqa, Shah & Khan (2011:707) advised that the physical size of the study and/or the living space at the student's home or any other form of accommodation wherein the student resides is important for both symbolic and functional reasons in support of the educational process. The building conditions related to human comfort have effects on students' academic achievement. For that reason, it must be noted that what is considered a conducive space for teaching and learning by some may be seen as an unsuitable environment for studying to others which suggests that College staff need to understand how learning itself is understood and how it should take place. The learning space incorporates not only its size in measurement, but also various dimensions such as furniture, heating, and ventilation (Montgomery, 2008:134). In certain instances, students' concentration may be distracted easily by various academic obstacles found in the learning space, while at the same time changing a few factors like enlarging the physical space may increase their concentration.

A study partly focusing on home educational resources found that the homes of low socio-economic income students are likely to have structural faults, inadequate facilities such poor electricity and sanitation supply, and at times the neighbourhoods of these homes could be in high-crime areas (Guo & Harris, 2000:431-447; Mabaso, 2015:17; Montgomery, 2008: 134; Strickland & Shumow, 2008:39-48). There seems to be a considerable gap in the academic discourse regarding living and/or study space and students' academic performance, especially in developing countries. It is therefore important for Colleges to determine how the study space impacts student retention and academic performance.

South African student housing and access to food which are closely related to finance, are recognised as significant factors in student performance and success (Jones *et al.* (2008). In that regard the provision of accessible, decent, safe and academically conducive student accommodation in South African post-school institutions is of great importance to the quality of the higher education system and the success of our students, especially those from a rural and poor background.

Although there is little specific research in this area in South Africa, there is a large body of research from other countries that suggests a positive link between residence life and student academic success. The majority of students, particularly those studying in the historically black higher learning institutions, have been living in poor conditions that often hampered their ability to succeed (DHET, 2011). The above argument suggests that providing students with residence is likely to improve

student retention, particularly for students who might be identified as at risk, and shows a link with improved academic performance which also improves the social integration and adaptability to campus life among students who live in campus accommodation.

The TVET College institutions need to prioritise on the improvement of the conditions of study facilities and the actual size of the room with the intention to increase students' academic achievement.

3.4.5 Family structure

Research on the performance of students from single-parent families in the USA revealed that, apart from socio-economic status, family structures have their own effects on student academic performance and educational success (Bankston & Caldas, 1998:716; Biblarz & Gottainer, 2000:533-548; Mulkey *et al.*, 1992:46-65). In support of this view, Biblarz and Gottainer (2000:533-548) reported that students from the widowed single mothers perform better than those from divorced single mothers. The single-parent family environment negatively affects the academic performance of the students since students from such unbalanced home structures have to deal with the absence of the one parent figure as well as financial constraints (Carneiro, Meghir, & Parey, 2013).

According to Milem, Chang and Antonio (2005:1-38) and Pong and Dronkers (2003:682) various families use different strategic survival tactics in ensuring that their children stay at the academic institution although some of the factors identified are also found on the entire spectrum of single-headed families. Consistent with the above notion, McLaughlin and Findeis (2006:591-624) and Milne, Meyers, Rosenthal, and Ginsburg (1986:125) advised that the study on one-parent families almost exclusively addresses the father's absence from the family as the most prevalent pattern and relates it to students' poor cognitive performance. Notwithstanding that, some single-headed households are not as a result of separation, since a co-habiting partner arrangement has been found to improve economic well-being outcomes in the short-run for the female-headed families. Therefore, this situation is not always as negative as perceived.

A contrasting view is that beyond the individual aptitude the parent's level of education and financial assistance, and the pre-College enrolment expectations of the undergraduate students have a major impact on whether those students will stay or leave an institution (Tinto, 1975; 1993; 1997; 2006-2007:1-19). Also students who attended the College seeking more vocational training tend to leave their institution unsuccessful compared to those students who attend College in order to gain more

knowledge or preparation for a professional career (McCubbin, 2003). Inferred from the above discussion is that students who persisted in their College studies had different reasons for attending College compared to those students who withdrew.

In South African context there are issues such as race and gender, as well as single-parent households where the living conditions may be totally different compared to those families where both parents are present. Therefore, when assessing the impact of single-parent families, higher learning institution personnel must go beyond the economic status of such a household and determine the sociological perspectives. This section concerns how family structures influence student retention and locate a discussion beyond the financial status of single-headed households.

3.4.6 Institutional cultural and practical issues

Adapting to the higher learning institution life which includes practical issues regarding institutional and cultural factors in becoming independent and coping with new forms of social interaction and academic engagements is difficult for most students (Jones *et al.*, 2008; Council of Higher Education (CHE), 2010). Social integration challenges in the post-school institution which is also an important component for students' success can be daunting, particularly for students who find the dominant post-school institution culture socially alienating leading to low student performance and persistence (CHE, 2010; Leibowitz, 2005; Letseka, Cosser, Breier & Visser, 2009).

A cohort of scholars such as Mabokela and King (2001), Soudien (2008:662-678), DoE (2008) and CHE (2010) on the experiences of the historically disadvantaged students in the higher education system, particularly in former white institutions, recommend that the post-school should:

- focus on institutional cultures and recognise the importance of adapting institutions to overall changes in student bodies to responsiveness to educational preparedness of incoming students, and to their social and cultural backgrounds;
- recognise the higher learning institution's role in facilitating academic and social integration, without assuming that institutions can remain the same;
- examine the interaction between the socio-cultural and academic aspects of post-school life than to reference institutional culture as a separate factor to be independently changed.

The post-school activities provide both the lecturers and other personnel with the opportunities to value and encourage students, particularly the first-generation to study at institution of higher who

need to have extraordinary persistence and resilience to overcome barriers such as poverty and poor primary and secondary education experiences to enrol at the post-school institutions (Petersen, Louw, Dumont, & Malope, 2010:369-375).

3.4.7 Student support services

Once the students have been admitted and enrolled at the College, they should be provided with the relevant support service that will assist them in achieving their educational qualification within the prescribed duration (Jehangir, 2009; Miller, 2005:8; Seidman, 2005b:7-24). Consistent with this view, several studies on the impact of student support agreed that offering a wide range of student support services and resources is the foundation of enhancing students' academic assistance with the intention of increasing student persistence and success (Fike & Fike, 2008:68-88; Jehangir, 2009:33-49; Miller, 2005:8; Pascarella & Terenzini, 2005; Seidman, 2005b:7-24).

Similarly, the implementation and maintenance of career guidance, various academic support services and resources needed by students who are inadequately prepared for the academic challenges are needed to promote student success and increase student persistence at higher learning institutions (Kuh *et al.*, 2005; Pym, 2013:10; Tovar, 2013). For that reason, Adelman (2006), Kuh *et al.* (2005), Krammer, 2007; Pascarella and Terenzini (2005), and Pym (2013:10) suggest that advocating the use of responsive, student-centred support services such as peer tutoring and special labs for writing and speaking, writing, mathematics, and study groups are necessary for increasing student persistence in the higher learning institutions. On the other hand, the social support offered through counselling interventions to facilitate College transitions, mentoring, and interactions with other relevant stakeholders such as faculty personnel, lecturers, and other students within the institution promote student retention and success (Jehangir, 2009; Maimane, 2016; Tinto, 2012a; Tovar, 2013).

Scholars exploring the impact of student support services (SSS) in Colleges agreed that one limitation of the scholarly work performed to date is that the number of high-quality studies examining SSS programmes is minimal (Carey, Cahalan, Cunningham, & Agufa, 2004; Jenkins, 2006; Pettitt, 2006:59-64; Walsh, 2000; Zhang & Chan, 2007; Jehangir, 2009:33-49). The importance of offering student support programmes that encompass the academic, social, and financial support during the crucial first-year of College study cannot be over emphasised. In this regard, the provision of such early support rests on the fact that it may lead students to experience success early in their College

days and subsequently increasing the probability of future success (Needham, 2018; Tinto, 2012a; Tovar, 2013; Walsh, 2000; Zhang & Chan, 2007).

Treating students as an individual involves the provision of academic support, advice and pastoral care through personal tutoring whereby students must feel supported and valued (Krammer, 2007; Maimane, 2016; Martinez, 2001:17; Tinto, 2012:6). According to Humphrey (2006:78) and Little (2005:32) academic support to the College student can be achieved with the provision of personal tutors to give academic support and advice, and information or other facilities or support services to help students in solving their diverse problems impacting on sufficient progress with their studies. Some of the factors that cause students to discontinue with their studies include a lack of academic preparedness, wrong course choices, personal matters relating to life interfering with studying, financial constraints, and employment-related engagements limiting the time that is needed for success with studying (Heagney, 2004:5; Huxham, 2006:38; Scott, 2005:8).

Lecturers are expected to employ practical strategies during teaching and learning in order to assist students, particularly those from the historically disadvantaged groups, to persist and succeed at post-school institutions. The continuous involvement of the SSS unit during the first lectures of each year can play an important role in linking students to the relevant supports such as counselling, disability services and career advice. While the previously disadvantaged students tend to need and frequently use the SSS facilities more than the others, they often lack the confidence to go and seek the support services themselves (Chang, 2002; Hurtado *et al.*, 2003; Milem *et al.*, 2005).

Ineffective or lack of student support leads to student withdrawal and unsuccessful completion which are associated with a number of different aspects of teaching and learning activities such as the following (in no particular order of priority):

- uninspiring, boring or poorly structured teaching (Colalillo, 2007; Blaney & Mulkeen, 2008; Yorke & Longden, 2008);
- poor group ethos or group dynamics (Habley, 2004; Kennedy, Sheckley, & Kehrhahn, 2000; Mangold, Bean, Adams, Schwab, & Lynch. 2003);
- poor course organisation regarding changes to the advertised programme, timetable, rooming or staff, and inadequate liaison within the teaching team (Dodge *et al.*, 2009; Lea, 2000, Wells, 2007);
- inadequate or poor course design (Martinez, 2000; Davies, Bamber, Rudge & Stobo, 2000);
- excessive or poorly scheduled assessment;

- inappropriate or inadequate induction (Gillis, 2007);
- large gaps in student timetables (Hussey & Smith, 2010); and
- a mismatch between the largely activist and hands-on learning preferences of students and the more theoretical preferences of some of their teachers (Askham Bryan College, 2000; Blaire & Woolhouse, 2000).

In their work, Leibowitz *et al.* (2012) and Scott *et al.* (2007:1-86) maintained that there is considerable evidence that the transition from the school environment to post-school education is a challenging journey to many students irrespective of their socio-economic class and schooling backgrounds. The first year at the TVET institution is traditionally one of the exciting intellectual and personal discoveries, with independence in thought and behaviour that widens horizons and growth in confidence. Accordingly, Scott (2012b:17) emphasised that the experience for the majority of students in South Africa is marred by failures, loss of confidence, and perhaps disillusionment. What happens during the first year of study at higher learning institutions has a significant effect on overall academic success, as it is the foundation for the duration of the study experience.

3.4.8 Financing College education studies

The Retention Study Group (2004) and Tinto (2004) postulated that studying at the College while employed and working, paying tuition through loans or grants, and being financially dependent or independent are all factors impacting student retention and attrition at higher learning institutions. Often, students with high financial need also have other characteristics, such as being a first-generation College student or having less rigorous school preparation, putting such students at high risk of withdrawal from their studies (Retention Study Group, 2004).

Tinto (2004) emphasised that when students have unmet financial needs they tend to register for part-time studies and either work excessively or live off-campus which has a negative influence on student retention and success. The minority students, particularly those from the low-income families, are generally more likely to be retained if their financial aid package consists of grants as opposed to loans (Swail, 2004). Furthermore, the high student attrition of black students is largely attributable to their socio-economic background and to the peculiar characteristics of higher learning institutions. In a sharp contrast, Lang (1992) argued that even when the socio-economic factors are controlled, the attrition rate of blacks after enrolling in the College is not strikingly different from that of their white counterparts.

The provision of financial assistance to students in the South African TVET College education has been a significant component of strategies to widen participation in the post-school education. Funding has been increased through the National Student Financial Aid Scheme (NSFAS), set up by an act of Parliament in 1999 to assist the historical disadvantaged student groups. The South African post-school education is not completely free, as it was supposed to be. The DHET continuously works on possible ways and means in which fee-free post-school education can be progressively introduced for students from low socio-economic backgrounds (DHET, 2012; 2013; Papier, & McBride, 2018).

In fact, the TVET College institutions rely on the government subsidy, third-stream income and student fees for their financial viability. Whilst the government subsidy available for post-school education has in recent years been reduced, student fees have continuously risen, putting considerable pressure on students and those who fund them (DHET, 2010). On the other hand, the provision of financial assistance to students from low socio-economic backgrounds has faced several constraints despite the increased funding which continues to be insufficient to meet the needs all students (; Amagir, Wilschut, & Groot, 2018; DHET, 2010, 2018, 2019). Also, the NSFAS Review, completed in 2010, highlights the low performance of NSFAS students, with a 48% non-completion rate among NSFAS-funded students, and attributed this in part to systemic flaws in the funding model of NSFAS.

The NSFAS Review also highlights problems with the ways in which allocation formulae are increasing inequality between institutions, and how:

- dilution of funds in some institutions reduces amounts to individual students
- underfunding has increased institutional debt
- the means test system is open to abuse
- students who do not fit the minimum income levels, yet still cannot afford College, are not able to access funding.

Other related administrative challenges like poor loan recovery, sourcing sufficient funding to meet the basic needs for the struggling students, and failure to satisfy the required criteria by the financially needy students remain problematic and key to student retention and academic success (Fiske & Ladd, 2003:4; Jones *et al.*, 2008; Letseka *et al.*, 2009; DHET, 2010; 2011). For this reason, the fee policy remains a topic of continuous debate in an attempt to address the inadequate funds to meet the full needs of all students.

3.5 FACULTY ACCESSIBILITY FACTORS

The social factors such as parental and peer support, the development or existence of career goals, educational legacy, and the ability to cope with the social situations are some of the factors related to and impacting on student persistence and performance (Seidman, 2012:273; Tinto, 2012a:2012b: 251-266). These social issues facing College students are of ever-increasing interest to the post-school personnel since they are important to students' persistence and achievement.

Focusing on the career guidance, academic advising, staff approachability and family support in the South African TVET College education is critical for students' success since individual students who were brought up in a culturally and educationally crossover environment.

The next segment focuses on the academic advising and faculty personnel's approachability.

3.5.1 Academic advising

Academic advising is a process that occurs over time wherein students continuously building relationships with their academic advisors (Kuh *et al.*, 2005; Williams, Glenn, & Wider, 2008:1). This academic process requires that the faculty personnel interact with the students as they develop, allowing and assisting them realize what decisions to make and subsequent actions to taken in order to achieve their educational and career goals. It is an organized and structured attempt in which the post-school faculty or personnel have sustained interactions with students (Hunter & White, 2004).

The relationship between students and their academic advisors with regards to subject choice is one of the crucial aspects of students' interaction and engagement that promotes persistence and achievement within an institution of higher learning (Hunter & White, 2004:20-25; Perna, 2006; Tinto, 2012:6). In a related view, Pascarella and Terenzini (2005) and Tuttle (2000:15-24) found that students who depart prematurely from the College often cite poor academic advising experiences as one of the main components of student retention and achievement. In that regard the academic advisory unit plays a role in students' decisions to persist and also affects their chances of graduating (Miller, 2005).

The mentoring and counselling aspect of academic advice assist students in realizing their purpose of participating in post-school education and why they are pursuing their current educational goals. The mutual engagements between the academic advisors and students can improve student persistence

and success processes and provide students with a sense of belonging and security (Kuh *et al.*, 2005; Williams *et al.*, 2008). Implied here is that this rapport further provides a sense of connectedness where students feel that they belong to the College set up and that the institution belongs to them. Petersen, Louw, Dumont and Malope (2010) suggested that the academic support structures for students which are essential for student retention and success should be provided during the first year of study in order to achieve the desired academic goals.

The South African TVET Colleges should, early in the year immediately after student registration, focus on and develop an assistance programme for students hailing from the less supported environments. Such programmes should focus on new students who may bring with them deficiencies in their self-esteem and efficacy, especially in the academic areas, as compared to those students from more advantaged backgrounds. The ability to effectively interact with other students, personal attitudes, and cultural practices form a second set of external factors that characterize individual students which also need special attention for increasing student retention and success.

3.5.2 Social integration

Staff approachability, connection between staff and other students, since students are in the same boat reflects on how the faculty personnel make themselves available and accessible both inside and outside the College, especially at the junctures where students need them the most at the higher learning institution (Kuh *et al.*, 2005; 2009; Pascarella & Terenzini, 2005). In addition, various post-school institutions and their faculty personnel attain adequate levels of approachability by operating longer hours than the regular College hours and promptly answering students' queries through various media such as the e-mails and telephone (Kuh *et al.*, 2009). The TVET College employees are expected to be involved in other committees and programme activities to discuss curriculum issues and provide prompt academic feedback on performances that enhances the chances of persistence until achieving the academic goals.

One of the important factors which affect College students' persistence is that of being socially integrated and connected with other people, especially the students and academic staff within the College (Jacobs & Dodd, 2003; Kuh, 2001; Tinto, 2010:73). For most students, the College is a place of academic pursuits providing an opportunity to explore and enhance students' social being; hence the post-school institution should not present barriers to academic progression. In fact, while some students desire to finish their College studies within a record time, they do not consider themselves

as being ultra-academically capable; instead, these students prefer partaking in endeavours that develop them socially (Field, 2018; Moxley, Najor-Durack, & Dumbrigue, 2001). Bean (2005:227) advised that, while agreeing that social integration varies from student to student, learning institution personnel must also focus on students' social lives within the College and their interactions with others both inside and outside the institution as they are important factors for student retention decisions.

Like other challenges in life, students are likely to accomplish their academic qualifications when they are in the company of others who are like-minded and facing similar challenges (Freeman, Hall, & Bresciani, 2007; Kuh, Cruce, Shoup, Kinzie, and Gonyea, 2007; Raley, 2007). How well the student adapts to the unfamiliar surroundings and new people within the College plays an important role in whether the student continues or refrains from attending the College. Student integration in this context consists of students' social and psychological comfort with their post-school environment, associations with similar groups of students, and a sense of belonging to the College (Kuh & Love, 2000: 196-212). The above mentioned factors provide students with the social security necessary to assist students in bonding with others to achieve their common goals as one of the important factors contributing towards student persistence until graduation.

Non resident students who simply attend classes in the lecture rooms and then go home without engaging in the College activities are found to be at risk of withdrawing from that academic institution (Barnett, 2010: 197; Swail, 2004; Tinto, 2004). In their work on social integration, Swail (2004) and Tinto (2004) found that the establishment of student friendships with peers, development of mentors and connectedness with the faculty members are other important factors for student integration influencing student retention decisions.

According to Swail (2004) and Tinto (2004) the removal of the cultural barriers so that students can connect to the campus community and promote participation in student organizations and engaging in campus social traditions and academic experiences positively influence the institutional commitment and retention, especially for students from the historically disadvantaged populations. Similarly, these interactions where students engage with the institutional staff and their peers are important for student integration resulting in improving student persistence and success (Barnett, 2010:197; Deil-Amen, 2011:54-91). Accordingly, the students' decisions to remain or leave the College are not strictly based on the number and type of interactions they have with institutional

personnel, but rather how they understand and draw meaning from those important interactions (Barnett, 2010: 2000; Tinto, 2012b:253).

3.6 DEMOGRAPHIC FACTORS

An array of researchers, including Davies (2001:16), Davies and Rudden (2000:2), and Martinez (2001), found that student drop-out in the United Kingdom does not have a markedly different profile from completing students with regard to their age, ethnicity or gender. Even within the small Colleges, variations in the demographic composition of the student intake seem to account for not more than 50% of the variation in College performance as measured by students' qualification achievement.

Unlike in the secondary schools, Colleges do not have the entitlement to free school meals to serve as a convenient indicator of social class. The parents' level of education, gender, ethnicity, family income and distance from hometown to the institution are all factors in the student retention puzzle (Retention Study Group, 2004). Also the distance from one's hometown, both physically and culturally, ethnicity particularly at the institutions which lack diversity in student body, and faculty and institutional leadership form important factors impacting the management of student retention and achievement (Swail, 2004).

The South African TVET College institutions have the responsibility to determine and assist students from low-income families who enrolled for their studies whilst employed since they are likely to work many hours making it more challenging for them to integrate into the social and academic life of an institution and thus persist to graduation.

3.7 STUDENT SENSE OF BELONGING

In the higher education industry academic motivation, academic integration, and academic persistence have been associated with a sense of belonging at the classroom level (Bean & Eaton, 2001; Freeman *et al.*, 2007; Hausmann *et al.*, 2007; Parker & Flowers, 2003). A cohort of scholars loosely define student sense of belonging as an individual's sense of identification or positioning in relation to a group or groups within or to the College community that may yield cognitive and affective responses to the academic activities (Bollen & Hoyle, 1990:479-504; Hurtado & Carter, 1997:324-345; Hoffman *et al.*, 2002; Hurtado & Ponjuan, 2005:235-251; Johnson, Soldner, Leonard,

Alvarez, Inkelas, Rowan-Kenyon & Longerbeam, 2007:525; Smith & Wertlieb, 2005; Tovar & Simon, 2010:199-217).

For Morrow and Ackermann (2012) and Tovar (2013) the construct of students' sense of belonging which is not foreign to institutions of higher learning has been studied minimally and only with selected post-school student populations.

Numerous researchers exploring sense of belonging concurred that the key role that an educational institution plays either facilitating or impeding student retention and success both in and out of the classroom environment is how the student interacts within different faculties (Barnett, 2010; Bensimon, 2007:441-469; Braxton & McClendon, 2001; Cejda & Hoover, 2010; Deil-Amen, 2011; Karp, Hughes & O'Gara, 2010:69-86; Lundberg & Schreiner, 2004:549-565). Similarly, for Deil-Amen (2011), Cejda and Hoover (2010:135-153), and Thomas (2012) both the academic and social interaction impart important information to students which serves as the precursor to student retention within the College. Furthermore, a sense of belonging characterizes an individual's perceived belief of indispensability within a social system and his or her recognition and acceptance as a member of that College community which is considered as embedded measures of academic institutional fit, institutional quality and commitment to the College (Hoffman, Richmond, Morrow, & Salomone, 2002-2003:227-256; Hurtado & Carter, 1997; Hurtado, Han, Sáenz, Espinosa, Cabrera & Cerna, 2007:841-887; Hurtado & Ponjuan, 2005; Johnson *et al.*, 2007; Tovar & Simon, 2010).

Hurtado *et al.* (2007:841-887), Hurtado and Ponjuan (2005) and Tovar and Simon (2010) advised that the measurement of the sense of belonging is divided into unidimensional and multidimensional constructs which remain an issue debated among the scholars. Several scholars contend that the unidimensional construct is the measure of the perceived sense of belonging used which is also suited to understand a variety of collective affiliations formed in large environments that can contribute to individuals being part of the large student community within the same learning institution (Hausmann, Schofield, & Woods, 2007:803-839; Hausmann, Ye, Schofield, & Woods, 2009:649-669; Locks, Hurtado, Bowman, & Oseguera, 2008:257-285; Maestas, Vaquera, & Zehr, 2007:237-256).

On the other hand, the multidimensional construct determines the specific student-faculty relationships, student-peer relationships, and student-classroom engagements (France, Finney & Swerdzewski, 2010:440-458; Hoffman *et al.*, 2002; Tovar & Simon, 2010). Implied in the above

discussion is that students feel connected and not marginalize or threatened by the way they integrate within the campus (Campbell & Mislavy, 2009; Hausmann *et al.*, 2007; Hausmann *et al.*, 2009; Morrow & Ackermann, 2012; Tinto, 2012a; Wolf-Wendel, Ward & Kinzie, 2009:424).

The global studies on the College sense of belonging found that a hostile racial climate directly and negatively impacted students during their first years of College studies. Students are less likely to feel part of the campus community for as long as they perceive or have experienced any kind of discrimination with the potential of hindrance to their academic and social development (Hurtado and Carter cited in Tovar, 2013; Hurtado *et al.*, 2007; Locks, Hurtado, Bowman, & Osegura, 2008; Maestas, Vaquera, & Muñoz Zehr, 2007). For that reason, the quality of peer relationships and the frequent and positive interactions with diverse students within the College are positively associated with a higher sense of belonging. Accordingly, Hurtado *et al.* (2007), Locks *et al.* (2008), Maestas *et al.* (2007) and Strayhorn (2008) maintain that early socialization amongst students pursuing positive transitional perceptions toward different views can facilitate and enhance the sense of belonging in the later years.

The South African TVET College system need to focus on students' experiences of the diverse campus climate and assist these students as they navigate on the institutional culture to perpetual improve student retention and success (Johnson *et al.*, 2007; Nuñez, 2009:49; Strayhorn, 2008:301-320). The students' academic results, time spent on their studies, and interactions with their peers need to form part of the academic initiatives in support of student sense of belonging.

3.8 STUDENT MOTIVATION

In the higher education settings academic motivation is being associated with student retention and success. In that regard, Van der Aardweg and Van der Aardweg (2006) and Mellet (2000) define motivation as the driving force, the impetus of the personality that can either be an intrinsic and/or extrinsic force put into effect by the act of the willingness in accordance with what the student intends doing. In a nutshell, motivation is the process whereby an individual is given the opportunity to satisfy his or her needs by pursuing certain objectives by involving the creation and sustenance of the desire to work for certain goals among the people in an organisation (Management Services Board, 2003:2; Mellet, 2000).

Motivation has to do with a set of independent or dependent variable relationships that explain the goal, and persistence of an individual's behaviour, holding constant the effects of aptitude, skills, and understanding of the task, and the constraints operating on the environment. A highly motivated person tries to achieve to the best of his or her abilities and remains consistent until achieving his or her goal. Petersen, Louw and Dumont (2009:99-115) and Sikhwari (2007:520-536) concur that motivation is the most important psychological factor in education that positively influences student retention and academic performance at institutions of higher learning. In that regard the motivational theories focusing on individuals' motivations do not deal with the reasons individuals engage in the different activities which are dealt with by the motivational theories focusing on the distinction between intrinsic and extrinsic motivation (Petersen *et al.*, 2009).

International studies on student motivation concluded that there was a significant relationship between motivation and persistence for the minority students in a particular faculty, whereas this relationship was not significant for non-minority students (Allen, 1999:265-277; French, Immekus, & Oakes, 2005:419-425; Morrow & Ackermann, 2012). Similarly, Hansen and Mastekaasa (2006) observed that students coming from a social class closest to the cultural capital such as those who are from a line of academics in their families tend to perform better than those who were first-generation higher learning education students. In a related view, the study on the role of intrinsic, extrinsic and motivational orientations on adjustment, stress, well-being and academic performance found gender and entry qualification to be significant predictors of academic performance (Baker, 2003:569-591).

Dennis, Phinney and Chuateco (2005:223-236) purported that motivation to attend College for social and career reasons such as personal interest, intellectual curiosity and the reward of a good job was predictive of the post-school educational outcomes. On the other hand, family expectation motivation was not a strong predictor of College outcomes. Also, Parker, Summerfeldt, Hogan and Majeski (2004:163-172) found that emotional intelligence to be a strong predictor of academic performance for the first-year students that enhances the smooth transition from high school to the post-school institutions.

In defiance of the findings that increased self-esteem positively influences students' academic performance, Forsyth, Lawrence, Burnette and Baumeister's (2007:447-459) studies revealed that increased levels of self-esteem actually led to poorer academic results. Fallis and Optotow (2003:103-119) and Petersen *et al.* (2009) emphasised that student motivation has shown that self-determination theory (SDT) is one such theory describing behaviour as intrinsically motivated, extrinsically

motivated, or demotivated. Intrinsically motivated behaviour is associated with competence and self-determination where motivated people are engaged in activities that interest them, and they do so freely, with a full sense of volition and without the necessity for material rewards or constraints.

Motivation characterised by behaviours such as curiosity, exploration, manipulation, spontaneity, and interest result in individuals' high levels of engagement, better performance, and remaining in their College until they obtain their qualifications (Petersen *et al.*, 2009).

Instead, Levy and Campbell (2007:17-25) and Martinez (2000, 2001:2) suggest that the initial motivation of students as expressed by their reasons for enrolling, their aspirations and expectations of College do not vary significantly between students who subsequently stay and students who leave, which is slightly in opposition to the view that student motivation can lead to better retention and achievement.

In the South African context, Goodman, Jaffer, Keresztesi, Mamdani, Mokgatle, Musariri, Schlechter and Pires (2011:373-385) found that both intrinsic and extrinsic motivation influence students to exert more effort in an attempt to achieve the desired academic outcomes. Such findings suggest that increasing focus on the enhancement of student motivation and effort levels can improve student academic performance leading to student retention and achievement. The TVET Colleges should identify strategic contemporary motivational drivers among students and use available information to enhance student performance and attainment.

The psychosocial factors such as academic motivation, self-esteem, perceived stress, academic overload and assistance-seeking gestures predict the academic performance at the post-school institutions (Petersen *et al.*, 2009; Petersen, Louw, Dumont & Malope, 2010; Sommer & Dumont, 2011:386-395). In addition, the SSS personnel are expected to improve the academic support structures which are essential for students' motivation and provide assistance to students during the first year of study in an attempt to increase student retention and achievement.

3.9 SUMMARY

This chapter focused on the literature related to student retention and success which is globally found to be one of the most widely studied areas in higher learning institutions where some post-school education organizations have been able to make substantial improvements in the rate at which their students graduate, but many have not (Carey, 2005a, 2005b, Tinto, 2006-2007: 1-19). Among other

issues discussed here is how academic and social factors impact on student persistence and success in the higher learning institutions.

The literature review highlighted the salient predictors of student withdrawal and indicated that the national rate of student persistence and graduation in the post-school institutions has shown disappointingly little change over the past decade (National Center for Education Statistics-NCES, 2005a). Despite those many years of work on the student retention and achievement issues, there is still much that the learning institutions do not know, which needs to be explored and then translate this conducted research and theory into effective practice.

Although the internal institutional reasons for embarking upon enrolment management and student retention strategies vary, there are several general reasons that are held in common across the Colleges. Firstly, because of the current complex and demanding TVET College system consisting of a burgeoning College-bound population, escalating costs, limited state support resources and intense political scrutiny, these FEIs should not only put policies and practices in place that promote academic goals, but also provide empirical evidence of student retention and achievement (Kuh, 2005).

The second reason is that it has been dramatically demonstrated that it is far more cost effective for academic institutions to retain students they currently have than recruit new ones to replace the ones they have lost (McGinity, 1989; Papier & McBride, 2018). Thirdly, good student retention practices make good sense as they are generally learner-centred, based on intrusive and intentional interventions that are focused on student engagement and intellectual involvement, emphasising the general quality enhancements of academic programmes and student achievement. Successful student retention rates are essentially the bi-product of improved quality of student life and learning on the College campuses (Noel, 1985). Lastly, research results confirm that campuses with higher retention outcomes are conducting sound educational practices (Pascarella & Terenzini, 2005).

It is therefore not unreasonable to ask what else the TVET College institutions must do to further improve the effectiveness of the research work on student retention and success, and enhanced institutional effectiveness. What additional research questions must be asked and issues that need to be explored to effectively address the recurring problem of student drop-out in the TVET College system.

The literature review on student retention and academic success reveals that students leave a post-school institution for multiple reasons such as academic difficulty, adjustment problems, uncertain

goals, lack of commitment, inadequate finances, lack of student involvement, poor fit to the institution, and insufficient motivation (Carey, 2005a, 2005b; Martinez, 2000; Tinto, 2001).

In chapter four, the researcher will describe the research design and methodology of data collection.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

Unearthing factors playing an important role in students' persistence and attrition in higher learning institutions requires a vigorous research approach that is based on both qualitative and quantitative epistemology. The use of a mixed-methods research approach in this study aimed at ensuring that the participants, in this case the TVET Colleges' employees (in phase 2) and students (in phase 1) have an opportunity to raise both their subjective and objective views on the phenomena being studied, while the objectivity of the entire research project is maintained. Therefore, the researcher opted to use both qualitative and quantitative research approaches in this investigation as explained in detail in the following sections.

For the purpose of this study, the focus was on investigating how the TVET Colleges can effectively manage student retention and success as they increase student access and enrolments. The aim of this chapter is to describe the research methods and design selected to be used in the study.

4.2 RESEARCH METHODOLOGY AND DESIGN

Research design and research methodology are two concepts that are interchangeably used to describe the same set up particularly by emerging researchers. It is important to clear the confusion firstly by explaining the difference between these two concepts and their application in the research circles.

Research methodology encompasses the complete research process inclusive of the research approaches, procedures and data collection or sampling methods used to solve identified problems (Cooper & Schindler, 2003:6; McMillan & Schumacher, 2001:74). This chapter deals with the research process, research paradigm, data collection methods, sampling procedures, ethical considerations, validity and reliability.

4.2.1 Research

Various scholars from different fields of specialisations define research differently based on their backgrounds. Research is perceived as all about being amazed at the world and the steps researchers

take to understand this world in order to find out new things in a systematic way, thereby increasing their knowledge (Fayolle, Kyro & Ulijn, 2005:136; Saunders, Lewis & Thornhill, 2003).

Briefly, research is a properly planned activity, aimed at establishing new facts and information with regard to a particular phenomenon. The research process involves the identification of a specific problem or area of interest, translating that problem into a research problem, collecting data, analysing data and reporting the findings of the investigation process.

4.2.2 Research methodology

Numerous scholars concur that research methodologies logically explicate and define the kinds of problems that are worth investigating, that which constitutes a researchable problem, how to frame a problem in such a way that it can be investigated using particular designs, and how to develop appropriate means of collecting data (Creswell & Tashakkori, 2007a; Denzin & Lincoln, 2000:157; Schwardt, 2000:189; 2007; Teddlie & Tashakkori, 2009). In that regard the research methodology used in this study in order to satisfactorily answer the research questions posed in this study was the mixed-methods approach as mentioned above.

4.2.3 Research design

In planning to undertake a research project, the researcher took a decision pertaining to what, where, when, how much, and by what means should such an investigation take place with maximum control over factors which could interfere with the validity of the findings.

According to MacMillan and Schumacher (2001:166), research design is a blueprint for selecting subjects, research sites and data collection procedures to answer the research question(s). Also, the goal of a sound research design is to provide results that are judged to be credible. For Durrheim (2004:29), research design is a strategic framework for action that serves as a bridge between research questions and the execution or implementation of the research strategy.

As a preliminary plan of how the researcher intended to conduct a study, the research design delineates the structure of the investigation in such a way as to attain answers to the research objectives (Babbie & Mouton, 2004:74; Bogdan & Knopp-Biklen, 2006:54; Denzin & Lincoln, 2000:22). An effective research design outlines the defined purpose in which there is coherence between the research questions and the methods or approaches proposed that generate data that are

credible and verifiable (McMillan & Schumacher, 2001:74). Concurring with the above views, Mason (2002:25) and Ritchie and Lewis (2003:47) emphasise that research design encourages the process of strategic thinking and reflection throughout the whole research process which calls for a constant review of decisions and approaches.

In this study, the researcher used the mixed-methods approach in the execution of the research study, namely qualitative and quantitative methods, to respond to the questions posed in section 1.4. Creswell (2014:14) defines mixed methods as a research design that combines or integrates qualitative and quantitative research in a research study and uses both quantitative and qualitative data to answer a particular question or set of questions. This combination method involves the collection, analysis and interpretation of quantitative and qualitative data in a single or multiphase study (Hanson, Creswell, Plano Clark, Petsaka & Creswell, 2005, as quoted by Hesse-Biber (2010:3). Burke and Onwuegbuzie (2005:1) concur with Hesse-Biber's definition and write that mixed methods research is a natural complement to using either of the traditional qualitative or quantitative research methods in isolation. On the other hand, Kemper, Springfield and Teddlie (2003) define mixed methods as including both quantitative and qualitative data collection and analysis in parallel form.

According to Cooper and Schindler (2003:146-151), a broad research design consists of different elements, such as the type of research design, focus, time dimension and conditions which are worth discussing briefly.

The first stage includes an extensive literature review of the secondary data regarding the post-school education landscape internationally and nationally, the rationale behind widening student participation and increasing student access into the merged TVET Colleges, and predictors of student retention and achievement in these higher learning institutions. The literature review consists of journal articles, research reports, internet searches and textbooks, covering a range of disciplines.

The second stage, being the quantitative data, was used to collect data from the target population and to determine their views regarding the predictors of student retention and success in the TVET Colleges in Limpopo Province. In this case students were questioned and their responses gathered by means of completing a structured questionnaire whereby the researcher used the Special Packages for Social Sciences (SPSS) software to analyse the collected data which were then analysed and captured in tables and graphs.

On the other hand, the qualitative data deal with the formal descriptive focus used to investigate the research problem. The approach where mixed-methods are used is also referred to as triangulation which is further explained in sections 4.5 and 4.8 of this study. Qualitative data were collected from the employees of the six TVET Colleges through the semi-structured interview method whereas the second set of data was collected from the reports of Department of Higher Education and Training (DHET) and the six TVET College institutions participated in this study. From the collected data, the researcher drew conclusions regarding the effective management of student retention and success in Limpopo Province.

Furthermore, in order to determine similarities and differences using the triangulation method referred to above, the researcher made comparisons between the two sets of data namely, quantitative as phase 1 and qualitative as phase 2.

The steps used in the mixed-methods approach are presented graphically and explained in detail in section 4.5.

This investigation was conducted under field conditions, as students completed the questionnaire in their lecture rooms at their specific campuses while attending their lessons. Participants, in this case students, were fully aware of the research activity, which could not influence the results, as they had nothing to lose or gain if they manipulated their answers.

After designing the research plan it was necessary for the researcher to decide which research method(s) to use in investigating the identified research problem.

4.3 RESEARCH PROCESS

The explanation of the research design and methodology above led the researcher to identify appropriate research method(s) to be used in dealing with the effective management of student retention and success in the TVET College institutions. In order to develop the roadmap for this study, the researcher adopted the onion research process of Saunders *et al.* (2003:83, 2009) which illustrates the range of choices, paradigms, strategies and steps to be followed by researchers during the research process as explained below.

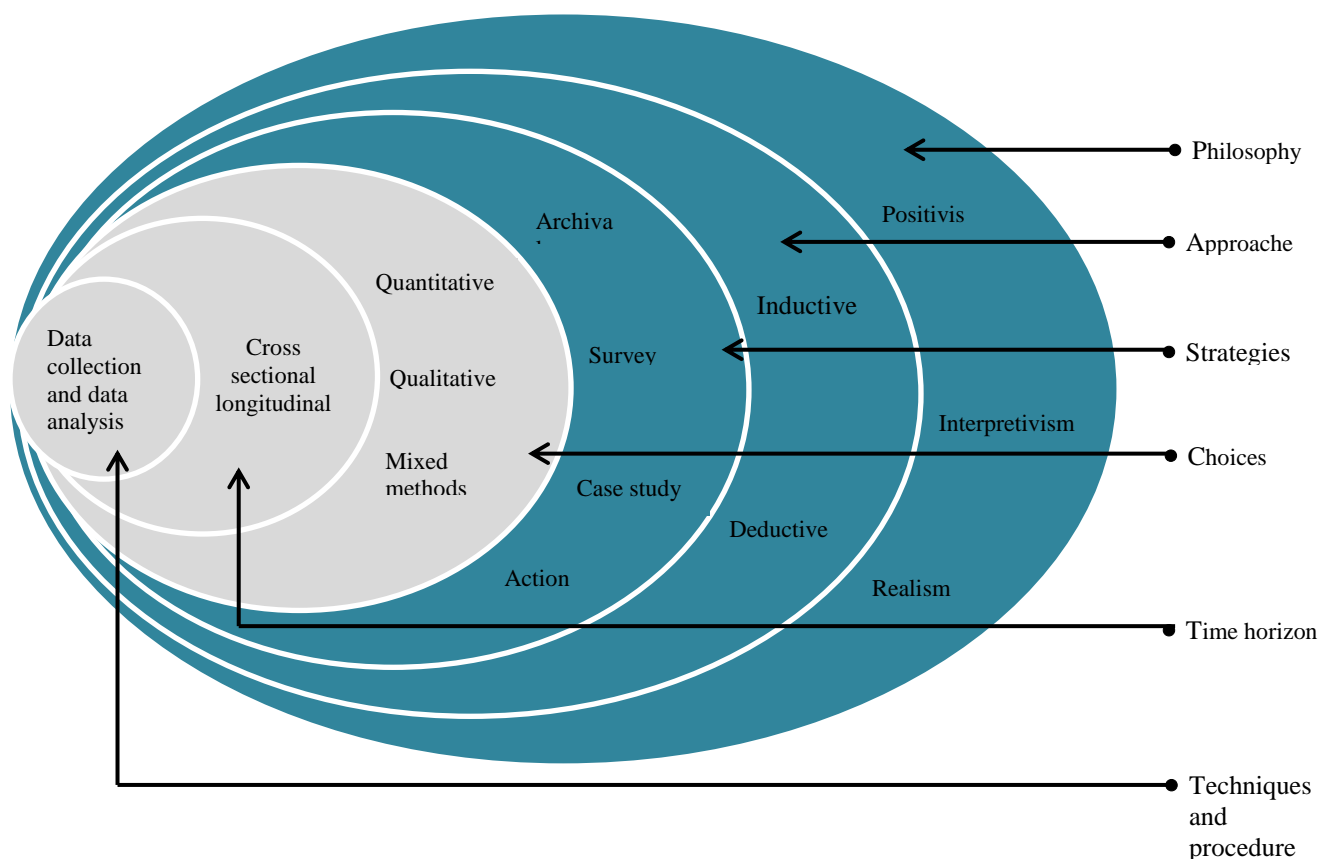


Figure 4.1: The research onion (adopted from Saunders *et al.*, 2003:83)

The outermost layer of the research onion is the philosophy consisting of ontology and epistemology. Ontology, which is a Latin word *ontologia* meaning “the science of being” is an analytical philosophy studying the nature of the existence of something and its classification whereas epistemology is concerned with the philosophy of knowledge (Bengson & Moffett, 2011).

For Saunders *et al.* (2009) in academic research epistemology refers to an individual’s philosophical beliefs as to what constitutes acceptable knowledge in a field of study. Literature identifies four main streams of research philosophies, namely realism, pragmatism, interpretivism and positivism as well as two ontological approaches and two epistemological approaches respectively.

- Realism is a research philosophy that claims that information and sensation derived from our human senses is only part of the ultimate truth.
- Pragmatism draws on “what works”. Pragmatism utilises the variety of actions to arrive at the desired result. Solving the problem is central to this philosophy and is orientated towards real-world practice (Creswell & Plano-Clark, 2011)

- Interpretivism is a philosophy which emphasises the uniquely individual interpretation of participants experiencing the same event, therefore dispelling the notion of treating a sample of humans as a homogenous mass. By highlighting this social aspect of research the researcher needs to understand the differences between the individuals as social actors (Saunders *et al.*, 2009).

The various layers illustrated above by the research process onion and their descriptions provided the basis from which the researcher derived the philosophical orientation of the research; the research approach; appropriate research methodologies; and the data collection techniques. It was important for a researcher to consider and review different philosophies before undertaking any research project.

4.4 RESEARCH PARADIGMS

The researcher deemed it appropriate to define the concept ‘paradigm’ in order clarify its elements before discussing the essence of the philosophical views expressed in the research methods described in this study. This section systematically explained how the paradigms, methodologies, research methods, data gathering methods and data analysis are interrelated.

In concert with Rocco, Bliss, Gallagher and Perez-Prado (2003:19), Corbin and Strauss (2008:89) describe ‘paradigm’ as the basic set of beliefs or assumptions that guide the researcher’s investigation. Suggested here is that every research project is approached with a plethora of interlocking and sometimes contradicting philosophical assumptions and beliefs.

The research design processes begin with philosophical assumptions that the enquirers make when deciding to undertake a study (Creswell, 2007:15). For that reason, the researcher brought his own views, paradigms, or sets of beliefs to the research project which eventually influenced how this study was conducted and written. Mason (2002:59) and Creswell and Plano-Clark (2007) agree that in defining one’s paradigmatic perspective as a researcher, the interplay between ontological and epistemological assumptions, meta-theoretical underpinnings, the research questions, and research methodology is inevitable.

The researcher’s ontological beliefs are about the nature of reality, which is explored through the researcher’s answers to problems such as what is the nature of the world, including social phenomena; if reality is orderly or lawful; the existence of the natural social order; if reality is fixed and stable or

constantly changing, and whether it is unitary or multiple; and if reality can be constructed by the individuals involved in the research situation (Creswell, 1998:76; Onwuegbuzie & Johnson, 2005:14).

The researcher 's epistemological beliefs are about what is possible for one to know or simply what is being researched. In that regard, Fayolle, Kyrö, and Ulijn (2005:136) assert that looking at the concepts of ontology and epistemology one can conclude that they are some kind of rules of the research paradigms and researchers have different rules, but all these rules are interconnected within each study.

Based on the assertion above, the next section explains the way in which knowledge can be studied and understood.

4.4.1 Hierarchical order of a paradigm

The exposition the hierarchical order is graphically illustrated in Figure 4.2 followed by a brief explanation 'paradigm'.

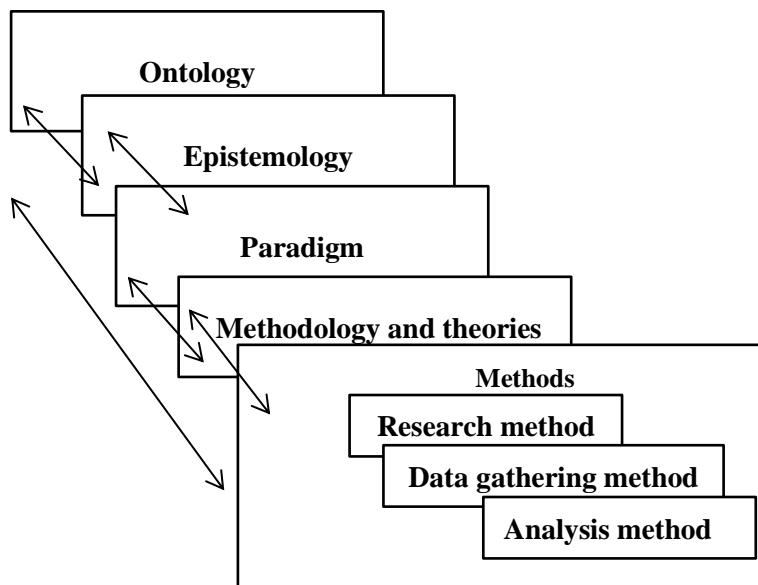


Figure 4.2: Hierarchical order of a paradigm (Adopted from Fayolle *et al.*, 2005:137)

Ontology as the broadest and deepest level is preceded by epistemology which is the second level that can be deduced from ontology (Fayolle *et al.* (2005). Ontology is concerned with the different

ways of attaining knowledge which are referred to as methodology. Each methodological choice consists of several specific methods whereby within these methods reside several alternatives for data gathering and analysis. Also research is concerned with how researchers think the social world is constructed or what researchers think the world is all about (ontology), resulting in how people believe they can know the world. Epistemology is about how researchers look at the world and the methods being used to concretise what they can see.

Knowledge can also be created by personal experiences that result in individual cognition. Such experiences require a deeper qualitative approach in order to reveal the personal, subjective and unique nature of translated interactions and intra-actions (Cohen, Manion & Morrison, 2000:3; 2007). The researcher chose the qualitative approach because through social constructivism researchers seek an understanding of the world in which they live and work, and develop subjective meanings of their experiences which are directed towards certain objects or things.

In line with Creswell and Plano-Clark's (2007:21) views, the researcher intended to make sense of the understanding others have about the effective management of student retention and success in the TVET Colleges. The social constructivist perspective in this study was through the semi-structured interviews when collecting data from the participants. The questionnaire (quantitative instrument) embraced the post-positivist perspective by seeking answers to theory-driven questions (Creswell & Tashakkori, 2007b:306). The constructivist perspective was supported by the participatory paradigm which proposes that at the end of the social constructivist agenda, there should be an action agenda for reform which may change the lives of the participants, the institutions in which they spend most of their time or even the researcher's life (Heron & Reason, 1997; Lune & Berg, 2017).

This study depended on several methods including the mixed-methods research approach, qualitative and quantitative methodologies, and questionnaire and secondary data analysis as methods of data gathering. In addition, the chi-square and analysis of variables tests were employed as a method of quantitative data analysis.

The next section describes the methods used to collect data flowing directly from the broad paradigms as well as the world views as presented below.

Table 4.1: Four world views (adopted from Creswell, 2014:6)

1. POST-POSITIVISM	2. CONSTRUCTIVISM
1.1 Determination	2.1 Understanding
1.2 Reductionism	2.2 Multiple participant meanings
1.3 Empirical observation & measurement	2.3 Social and historical construction
1.4 Theory verification	2.4 Theory generation
3. PARTICIPATORY/ TRANSFORMATIVE	4. PRAGMATISM
3.1 Political	4.1 Consequences of actions
3.2 Empowerment issue-oriented	4.2 Problem centred
3.3 Collaborative	4.3 Pluralistic
3.4 Change-oriented	4.4 Real-world practice oriented

Table 4.1 above depicts the four philosophical world views, namely post-positivism, social construction and the participatory and pragmatic views in which nature is perceived from different positions of life. Although these world views are often not reflected in the research, they have influence on the research practice and what the researcher does (Creswell, 2009; 2014). In a nutshell, the researcher focused only on the relevant paradigms which have an influence on the research designs and the methods, namely the management of student retention and success in the TVET College system.

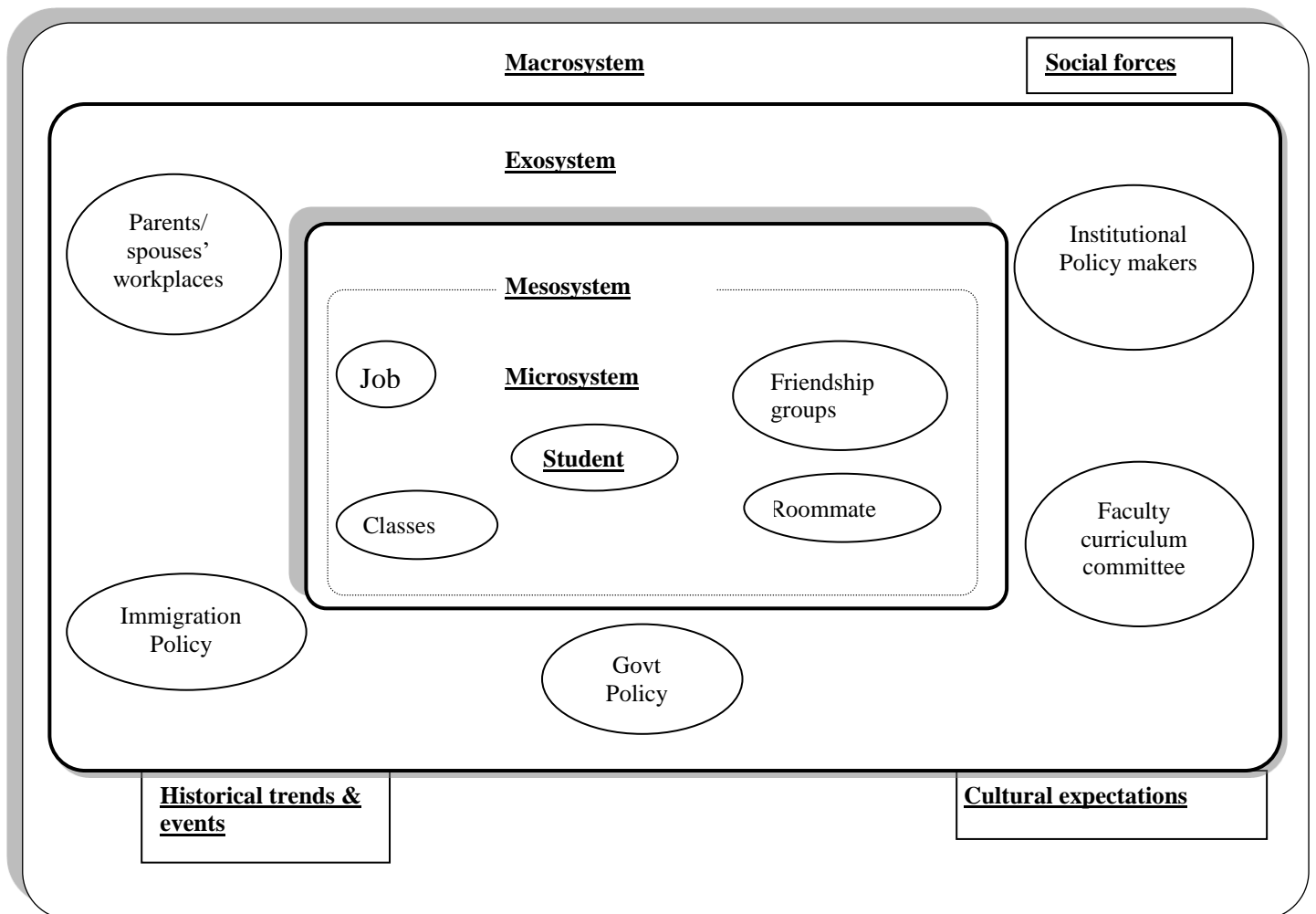
This study used the pragmatism world view, owing to the selection of the mixed methods approach as described in section 4.5. For Creswell (2009), this world view is not committed to one system of philosophy and reality since its proponents are intentionally draw from both qualitative and quantitative assumptions when they engage in their research. Pragmatist researchers look to what and the how in their research projects.

Pragmatism opened the door to multiple methods, different views and different assumptions, as well as to different forms of data collection and analysis in this study. Over and above these paradigms and world views, the researcher employed the ecological systems theory of Bronfenbrenner as the main theory to describe the management of student retention and success in the TVET Colleges which is briefly described next.

4.4.2 Ecological systems theory

This study used the framework and principles of ecological systems theory of Bronfenbrenner as the main theory to explain how different levels of factors influence student retention and success at the TVET College environment.

Each of these levels has different effects on the individual's being. These levels are categorized as the microsystem, mesosystem, exosystem, macrosystem, and chronosystem as indicated in section 1.2.1. Figure 4.3: presents a graphical explanation of the functioning of ecological systems theory.



Adapted and created based on the information from Bronfenbrenner (1979 & 1995)

Figure 4.3: Ecological systems theory - Bronfenbrenner (1979 & 1995)

According to Figure 4.3, the microsystem represents the most influential level in that the closest relationships to an individual, such as family, college and neighbourhood relationships, occur within the context of this level. This level is therefore the level where direct contact with the person occurs.

The mesosystem consists of interactions between an individual's microsystems, such as, for example, interactions between family and friend environments, or between church and neighbourhood environments. The exosystem level defines the larger social system in which the individual does not function directly, such as, for an example, community-based family resources, but which affects a person indirectly. Although the individual is not directly involved at this level, the positive or negative forces involved with the interaction with the individual's own system affects the individual's functioning. The macrosystem layer includes all other systems and the societal culture surrounding a person which then includes cultural values, customs and laws. Lastly, the chronosystem refers to the dimension of time as it relates to an individual's environments. Chronosystem-level influence can be divided into two parts, the importance of the timing of an event during a person's development, or events that are unique to a particular generation. This ecology changes over time as an individual gets older or as certain systems such as families, friends, educational institutions become more or less alien to the individual's development. Each of these layers includes the systems which influence the development of an individual in different ways. The ecological systems theory of Bronfenbrenner serves as the main theoretical framework for this study on the management of student retention and success within the TVET College system.

In a quest to augment and support the ecological systems theory Bronfenbrenner, the researcher included both socially and academically prediction of student retention and success (Tinto, 1975, 1993), and student's ability and involvement in the educational institution (Tinto, 1987).

The above integration theories suggest that the student's individual characteristics and a good match between the institutional environment and student commitment leads to successful student integration into the academic and social domains of college life, and therefore greater probability of persistence. Conversely, students are more likely to dropout or transfer to another institution when the match between student's expectations and the qualifications offered by the learning institution differ.

Furthermore, applied to this study the principles of systems theory supplemented the explanation on how the TVET College resources are effectively managed and transformed to account for public funds spent. The systems approach is a world view that is based on the discipline of systems inquiry which means a configuration of parts connected and joined together by a web of relationships. Von Bertalanffy (1968) defined a system as elements in a standing relationship, a family of relationships among the members acting as a whole.

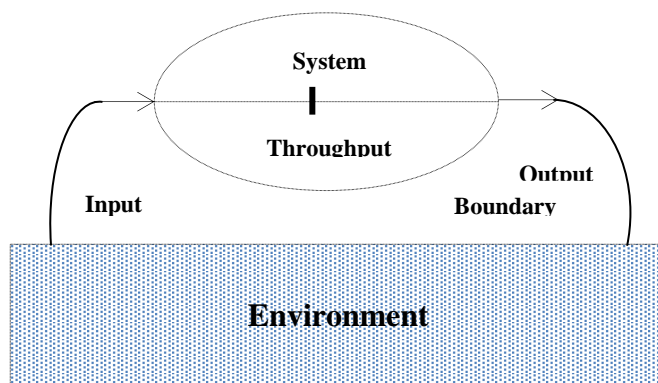


Figure 4.4: Inputs-outputs relationship (adopted from Von Bertalanffy, 1968)

An attempt to explain the manner in which the TVET College institutions manage student retention and success, the researcher selected the above system theory. The TVET College education is a system with many other subsystems, namely, DHET, TVET Colleges, campuses and different faculties in this case.

Over and the above the explanation of the systems approach as described in Figure 4.4 above, Table 4.2 below attempts to explain the relationship between the inputs, processes, outputs and the feedback in all spheres of the TVET College system.

Table 4.2: Inputs-outputs relationship (adopted from Bertalanffy, 1968)

Inputs	Processes	Outputs	Feedback
Community Level			
Citizens in need	Assessment, eligibility determination	Eligible clients	Clients waiting to receive services
Policy Level			
Legislation and laws	Interpretation, policy formulation, rule making	Policies, rules and regulations	Legislative intent, fulfilled, satisfied legislators.
Management Level			
Funding	Purchasing and contracting	Services paid for	Accounting and Audits
People and	Staffing,	Trained and	Performance

organisational structure	coordinating and directing	motivated staff	evaluation
Charts, regulations, grant guidelines	Planning, organising and reporting	Accountable and lawful services	Goals achieved

According to chapter 13 of the Constitution of the Republic of South Africa (1996), the government collects funds (inputs) from the public institutions such as banks, learning institutions, churches, business and industrial environments and these funds generate the national revenue fund which becomes the source of funds for public services and development. Through the processes of equitable sharing, budgets are allocated to all government institutions for services to the people and, through the management of these institutions; these funds are transformed into services and goods (outputs) for all citizens. Table 4.2 depicts in simplified form how the process of transforming the inputs into goods and services is done. The focus and interest is on the management level namely the College executive and senior and middle management and this level constitutes and represents the management of the TVET College institutions in the Provincial sphere.

Within the context of this study both qualitative and quantitative methodologies are briefly explained below.

4.5 MIXED METHODS RESEARCH APPROACH

The mixed-methods research approach which was adopted in this study includes both qualitative and quantitative data collection and analysis in parallel form – concurrent mixed method design in which two types of data are collected and analysed in sequential form (Kemper, Springfield & Teddlie, 2003).

For Bazely (2003) and Onwuegbuzie and Leech (2006:474) the mixed-method uses data in the form of numerical data and text, and alternative tools such as statistics and analysis. It is a type of research approach in which the researcher uses the qualitative research paradigm for one phase of a study and a quantitative research paradigm for another phase of the study. According to Creswell, Fetters and Ivankova (2004:7), mixed-methods research is not simply collecting both qualitative and quantitative data, but an approach where the data are integrated or mixed during the research process. These views suggest that neither qualitative nor quantitative methods suffice to capture the trends and details of

the investigation on their own but, when combined, both qualitative and quantitative data provide a more complete analysis as they complement each other. Similarly, Onwuegbuzie and Johnson (2004:408) emphasised that mixed-methods research, depending on the type of research and the question to be answered includes the use of *induction* which refers to the discovery of patterns, *deduction* which involves testing theories and hypotheses, and *abduction* which refers to uncovering and relying on the best set of explanations for understanding one's results.

The following figure shows the seven steps in the process of conducting a mixed-methods research project.

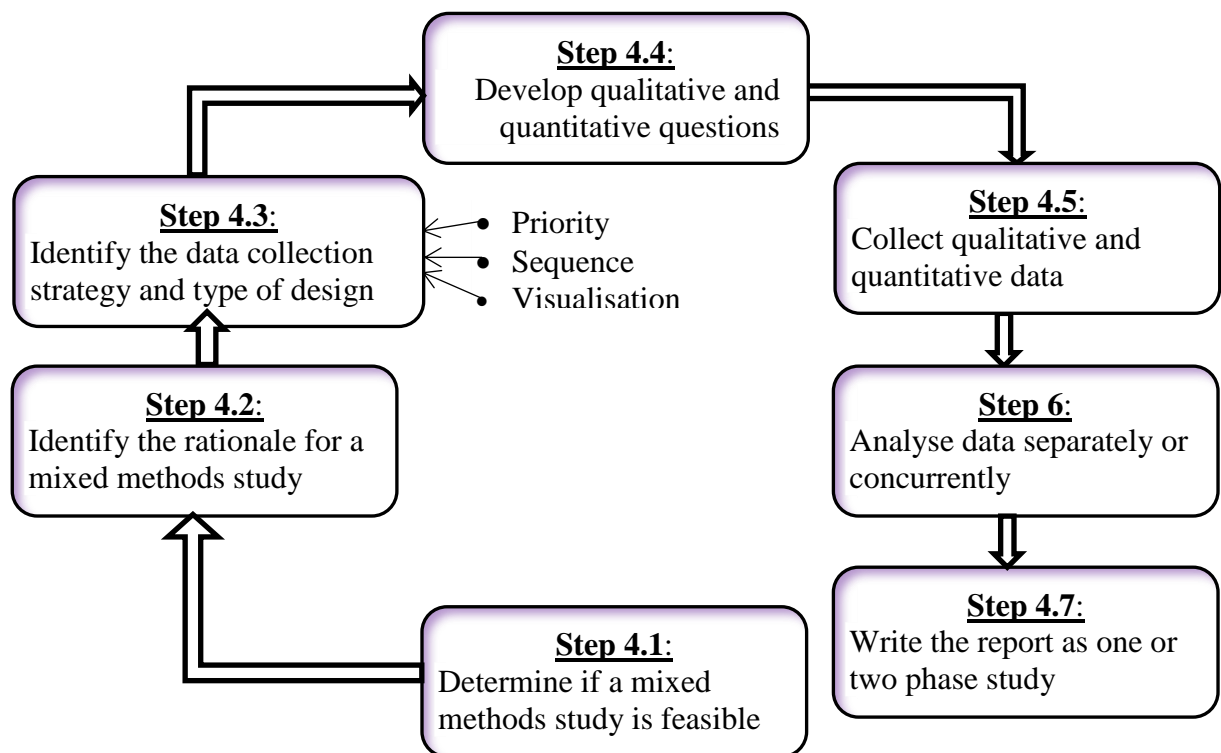


Figure 4.4: Steps in the process of conducting a mixed methods study (adopted from Cannon, 2004)

In this study, the researcher used the above seven steps in Figure 4.4 from the design phase until the end of the research process. The next section discusses in detail the qualitative and quantitative research methods that were used, and this is then followed by the phases used in the data collection and analysis.

4.5.1 Qualitative research approach

The research method approach followed was dictated by the nature of the data collected and the research project. McMillan and Schumacher (2001:395) concur with Patton (2002:39) in defining qualitative research as an inquiry in which researchers collect data in face-to-face situations by interacting with selected persons in their settings. Similarly, Lune and Berg (2017), and Weinreich (2009) emphasises that the purpose of qualitative research was to provide the researcher with the perspective of target audience members through immersion in a culture or a situation with the participants involved in the study.

Consistent with the above notion, Ibrahim (2006:64) remarked that the qualitative approach is firstly used to explore, define and develop a suitable approach to a problem being studied. Secondly, it is used to develop a deeper understanding of the phenomenon being investigated, and to develop a detailed perspective of that phenomenon. The researcher also used the qualitative paradigm to establish in detail factors that might have resulted in the problem being investigated. Accordingly, Patton (2001:39) argues that the qualitative research approach uses a naturalistic approach which seeks to understand phenomena in context-specific settings, such as real world settings, where the qualitative methods include direct observation, document analysis and overview, participant observation, and open-ended unstructured interviews.

For that reason, this research approach assists researchers in understanding the meanings participants assign to social phenomena and elucidates the mental processes underlying behaviours. Quoted in Ibrahim (2006:64), Daymon and Holloway (2002) argue that the qualitative approach emphasises thick description, i.e. obtaining real, rich, deep data that reveal the daily patterns of action and meaning from the perspective of those being studied. This view emphasises the importance of the voice of the researched and gaining first-hand information regarding the lived experiences of the researched on a particular subject.

Qualitative inquiry employs multiple data gathering methods, particularly participant interviews, and uses an inductive approach to analyse data, extracting its concepts from the mass of particular detail which constitutes the data base. For that reason, Weinreich (2009) argued that the strength of qualitative approaches is generating rich and detailed data that leave the participants' perspective intact and provide a context for the phenomena being studied whilst their disadvantage is that data collection in the qualitative approach may be labour intensive and time consuming.

This investigation was conducted when there were claims that student persistence and success rate at the TVET Colleges was low due to insufficient provision of the necessary support for students to persist until completion of their studies. A qualitative approach used in this study aimed at verifying such claims. The approach enabled participants to elaborate on their knowledge and lived experiences with regard to how student retention and success at TVET Colleges in Limpopo Province can be effectively managed.

The researcher compared the data collected through interviews and explored the responses that arose from these interviews to provide a greater understanding of the central phenomenon, the knowledge and experiences on the effective management of student retention and success throughout the TVET College institutions in Limpopo Province.

4.5.2 Quantitative research approach

In addition, this study used the quantitative research approach to collect quantitative data from the target student population at the TVET Colleges in Limpopo Province as outlined later in section 4.7.5.

Rudestan and Newton (2006) describe quantitative research methodology as a method that is used to determine the aggregate differences between groups or classes of subjects. This research approach is aimed at testing theories, determining facts, demonstrating relationships between variables, and predicting outcomes. In support of these views, Weinreich (2009) emphasises that quantitative research uses methods from the natural sciences that are designed to ensure objectivity, generalizability and reliability.

The researcher in quantitative research, unlike in the qualitative paradigm where he is regarded as a great research instrument due to his active participation in the research process, was considered being an external to the actual research, and results were expected to be replicable, no matter who conducts the investigation. A quantitative method requires planning and diligence up front to ensure that the instruments are in place when the researcher intends to gather evidence (James, Slater & Bucknam, 2012:124).

Fox and Bayat (2007:78) identified two major advantages of using a quantitative approach: firstly, the use of numbers allows greater precision in reporting results and, secondly, powerful methods of mathematical analysis can be used in the form of computer software. Within the context of these theoretical principles, data were collected from the students using the questionnaire instrument

of which the details regarding the sampling procedure are discussed in section 4.6. Closed-ended questions were asked, covering student retention activities in place and their impact in relation to students' persistence and completion of their studies (See attached questionnaire instrument in **Appendix J**). The aim of the questionnaire was to determine the students' opinions, and their views regarding factors influencing the effective management of student retention and success within their TVET Colleges. Quantitative data collected through a self-administered questionnaire, on the other hand, were collected from the target student population in order to determine the respondents' views regarding the predictors of student retention and success in the TVET College institutions in Limpopo Province.

The data collected through this method was analysed statistically using the SPSS software. Table 4.3 below summarises the comparison between the qualitative and quantitative research approaches.

Table 4.3: Quantitative versus qualitative research: Key points in the classic debate (adopted from Neill, 2007)

Qualitative research approach	Quantitative research approach
1. The aim is a complete, detailed description	1. The aim is to classify features, count them, and construct statistical models in an attempt to explain what is observed
2. The researcher may only know roughly in advance what he/she is looking for	2. The researcher knows clearly in advance what he/she is looking for
3. Recommended during earlier phases of research projects	3. Recommended during latter phases of research projects
4. The researcher is the data gathering instrument	4. The researcher uses tools such as questionnaires or equipment to collect numerical data
5. Data are in the form of words, pictures or objects	5. Data are in the form of numbers and statistics
6. Subjective - individuals' interpretation of events is important, e.g. uses participant observation, in-depth interviews etc.	6. Data are in the form of numbers and statistics
7. Qualitative data are more rich, time consuming, and less able to be generalized	7. Objective – seeks precise measurement and analysis of target concepts, e.g. uses surveys, questionnaires, etc.

8. Qualitative data are more rich, time consuming, and less able to be generalized	8. Quantitative data are more efficient, able to test hypotheses, but may miss contextual detail
9. The researcher tends to become subjectively immersed in the subject matter	9. The researcher tends to remain objectively separated from the subject matter

4.5.3 Predispositions of qualitative and quantitative modes of inquiry

The concept of predispositions in this context is used to refer to the acquired characteristics of both qualitative and quantitative research approaches as outlined in table 4.4 below. This table further summarizes and explains how each of these research approaches operates.

Table 4.4: Predispositions of quantitative and qualitative modes of inquiry (adopted from Glesne & Peshkin, 1992)

Qualitative mode	Quantitative mode
1. Assumptions 1.1 Reality is socially constructed 1.2 Primacy of subject matter 1.3 Variables are complex, interwoven, and difficult to measure 1.4 Emic (insider's point of view)	1. Assumptions 1.1 Social facts have an objective reality 1.2 Primacy of method 1.3 Variables can be identified and relationships measured 1.4 Etic (outsider's point of view)
2. Purpose 2.1 Contextualization 2.2 Interpretation 2.3 Understanding actors' perspectives	2. Purpose 2.1 Generalizability 2.2 Prediction 2.3 Causal explanations
3. Approach 3.1 Ends with hypotheses and grounded theory 3.2 Emergence and portrayal 3.3 Researcher as instrument 3.4 Naturalistic 3.5 Inductive 3.6 Searches for patterns 3.7 Seeks pluralism, complexity	3. Approach 3.1 Begins with hypotheses and theories 3.2 Manipulation and control 3.3 Uses formal instruments 3.4 Experimentation 3.5 Deductive 3.6 Component analysis 3.7 Seeks consensus, the norm 3.8 Reduces data to numerical indices

3.8 Makes minor use of numerical indices	3.9 Abstract language in write-up
3.9 Descriptive write-up	
4. Researcher Role	4. Researcher Role
<ul style="list-style-type: none"> • Personal involvement and partiality • Empathic understanding 	<ul style="list-style-type: none"> • Detachment and impartiality • Objective portrayal

- **Assumptions:** assumptions for the qualitative mode assume that reality is socially constructed and the researcher's point of view matters because he identified with the phenomenon being studied. On the other hand, the quantitative mode assumes that social facts had an objective reality and the researcher did not identify with the researched phenomenon.
- **Purpose:** the purpose of qualitative research is to contextualize, interpret and understand the perspective of the actors, whereas the purpose of quantitative research is to predict, explain and generalize the outcomes of the research.
- **Approach:** the approach in qualitative research ends with hypotheses and grounded theory and makes minor use of numerical indices, whereas quantitative research begins with hypotheses and theories, using formal instruments such as questionnaires, and reduces the data to numerical indices.
- **Role of the researcher:** the researcher in qualitative research as explained above under the assumptions is to identify fully with the researched phenomenon and this might possibly lead to partiality and bias, whilst in the quantitative research approach the researcher's role is that of a distant observer, meaning that the researcher is detached from the research setting to ensure impartiality and objectivity.

4.6 SAMPLING PROCEDURES

Sampling involves the identification of a group of individuals or households who can be reached either through mail, telephone or in person and who possess relevant information, i.e. relevant to the solution of the problem under investigation (Schmidt & Hollensen, 2006:159). Similarly, Lamb *et al.* (2004:265) define a sample as a sub-set of the target population from which information is gathered to estimate something about the population. Sampling, which involves the selection of a sub-set of the population, is chosen out of the census of the whole population, due to time and cost constraints.

The process of developing a sampling plan consists of five steps: identifying the sample population, identifying the sample frame, selecting a sampling method, selecting the sample size and gathering information from the sample elements (Lancaster, Withey & Ashford, 2001:40). These steps are briefly described below.

4.6.1 Sample population

Several scholars describe the population or universe as a group or an aggregate of elements or subjects selected from a larger population that the researcher aspires to draw conclusions from (Aaker, Kumar, Day & Lawley, 2000:367; Cooper & Schindler, 2003:179; Webb, 2002:48; White, 2005:252).

As indicated in section 1.6.2, the targeted population for this study was the students (phase 1) and employees (phase 2) from the six selected TVET Colleges in the Limpopo Province, namely Capricorn, Letaba, Lephalale, Sekhukhune, Waterberg and Vhembe TVET Colleges. These selected participants represent the six major TVET College institutions in the Limpopo Provinces. The research was conducted in April, May and June of 2017. The researcher selected this period as it was in the middle of the academic year to ensure that both first year and returning students were relatively fresh from the registration processes and could still remember how they selected and enrolled at their specific TVET Colleges, and not the others as well as the student support services they received. After determining the sample population of the research study, a list or sample frame containing the identified members of the population was obtained.

4.6.2 Sampling frame

The research must be clear as to the kind of the population before drawing up a sample of the population or the units for analysis. According to Aaker *et al.* (2000: 367) and Wellman, Kruger and Mitchell (2011:57), a sampling frame is a complete list of population members in which each unit of analysis is mentioned only once to obtain a sample. A frame may be a register of organisations, industries, a telephone directory or even a map. Accordingly, Hair, Bush and Ortinau (2000:330) and Wellman *et al.* (2011:57) state that a sampling frame should be representative of all the elements of the population without any duplication of elements and be free from foreign elements.

The researcher used the available recent lists of staff and groups of students from the six participating TVET Colleges in this study as the sample frames. The next step involved deciding

how to select some elements of the sample population by making use of the sample frame, thus choosing a sampling method.

4.6.3 Sampling method

A sample is a group of subjects or situations or sub-set of the whole population which is actually investigated by the researcher and whose characteristics are generalized to the entire population (Bless & Achola, 1988:60; White, 2005:252). According to Leedy and Ormrod (2005:133), the particular entities which qualitative researchers select comprise their sample, and the process of choosing them is called sampling. The importance of sampling is to identify an appropriate sample from which to acquire data.

In this study, the researcher used purposive sampling strategies in understanding the how student retention and success is effectively managed by TVET Colleges in Limpopo Province. In highlighting the importance of the sampling strategies, McMillan and Schumacher (2001:319) avert that the power and logic of purposive sampling is that a few cases studied in depth yield many insights about the topic, whereas the logic of probability sampling depends on selecting a random or statistically representative sample for generalization to a larger population.

In this sample method, the researcher purposely targeted a group of TVET College employees (phase 2) believed to be reliable for this study. The power of purposive sampling lies in selecting information related to the central issues being studied (Kombo & Tromp, 2006:82). According to Leedy and Ormrod (2005:133) the purposive sampling technique ensures that participants with needed information about the topic are selected. The purposive sampling technique is appropriate for this study hence the selected participants were in the position to discuss issues related to the management of student progression and success in their institutions.

The individual participants who were likely to yield the most needed knowledge and lived experiences regarding the management of student retention and success were chosen (see Table 4.1). The researcher noted that in purposive sampling rich information rather than the number of participants was important (Simuchimba & Luangala, 2007:11). Therefore, the sample for this study was selected in such a way that the research questions which sought to establish aspects that influence the management of student retention and success at TVET Colleges in the Limpopo Province (see section 1.4) could be adequately answered during the semi-structured interviews.

Probability and non-probability sampling are the two sampling approaches, where probability sampling is based on the premise that each member of the population has a definite opportunity to be selected (Diamantopoulos & Schlegelmich, 2000:11-13; Wellman *et al.*, 2005; 2011:56). With non-probability sampling, there is no guarantee that each member of the population has a definite opportunity to be selected. On the other hand, according to Cooper and Schindler (2003:200) and Shoa (1999:38), non-probability sampling is more cost-effective, faster and effective.

Non-probability sampling was chosen as the characteristics of this method have particular appeal due to financial and time restraints. According to McDaniel and Gates (2001:336), non-probability samples can produce samples of the population that are reasonably representative. A major implication of this type of sampling, though, is that a statistical evaluation of the sampling error cannot be undertaken (Tustin, Ligthelm, Martins, & van Wyk, 2005:344). Measurement errors, which are usually associated with non-probability sampling, could be prevented by following the guidelines on constructing a questionnaire and by using focus groups as a pilot study to test the questionnaire; and also by cross-checking, computer checks and data pre-coding to avoid and eliminate coding and data capturing errors. Any respondents' errors could be corrected by reducing the length of the questionnaire, and minimising ego or humility questions. Interviewer errors should be avoided by making use of a structured questionnaire.

Non-response errors which can also affect the results were minimised by requesting students to complete the questionnaires during teaching and learning sessions in the presence of their lecturers in an attempt to increase the response rate and to ensure the correct elements were included in the sample.

In line with de Vos, Strydom, Fouché and Delpont's (2002; 2011) work, involving all the TVET College staff and students in the study of student retention and success in Limpopo Province was not practically possible, hence the researcher had to sample a unit of the population. Further, Bouma, Ling and Wilkinson (2009:142) emphasise that care should be taken to make sure that the sample is an accurate reflection of the population from which it is taken. The researcher, in the following sections, explains the sampling methods and procedures employed for both qualitative and quantitative data collections.

4.6.3.1 Qualitative data sampling

The qualitative data was collected from the participants whereas documented information related to management of student retention and success from these TVET Colleges were utilised in this study. Matthews and Ross (2010:167) define purposive method as a method in which participants or cases are sampled with the purpose of enabling the researcher to explore the research questions. The purposive sampling method was used to sample four participants from each of the six TVET Colleges (twenty-four employees) participating in the study. The researcher knew that campus managers, student support managers, student enrolment managers, and lecturers are directly involved in student retention and success matters, therefore the researcher believed that they should be able to provide relevant and informed responses given their roles in their respective TVET College sections. The above twenty-four participants were drawn from each sampled TVET College by using the random sampling method. These institutions were Capricorn, Letaba, Lephalale, Sekhukhune, Vhembe and Waterberg TVET Colleges.

The researcher requested various documents from these sampled TVET Colleges as well as the annual reports from the Department of Higher Education and Training (DHET) with special focus on the sampled TVET Colleges covering at least the period of three years, 2016/17, 2017/18 and 2018/19 as the other method of qualitative data collection. The data collected from these documents assisted in determining and extracting the challenges aspects that impact on student retention and success, and then compared with the results from the interviews and quantitative data.

4.6.3.2 Quantitative data sampling

This study used the purposive sampling method which is an example of non-probability sampling, to sample the 600 respondents who completed the questionnaire instrument. Ornstein (2013:82) writes that purposive selection makes sense when the sample is small and the researcher can choose typical elements, weeding out unusual elements that could be selected in a simple random sample. This means that the method can also be used as a first step towards simple random sampling. Purposive sampling is one of the non-probability sampling methods and is further defined by Strydom (2005:274) as a method based entirely on the judgment of the researcher in that a sample is composed of elements that contain the most characteristic, representative or typical attributes of the population. Matthews and Ross (2010:167) describe purposive sampling as a method in which people or cases are sampled with purpose to enable the researcher to explore the research questions.

The researcher used his knowledge in relation to set up in the TVET College institutions to select the respondents or units for inclusion in the sample.

The second method which was used was probability sampling which refers to sample designs where units were selected by probability mechanisms, allowing no scope for the influence of subjectivity. Strydom and Venter (2005:203) describe the probability sampling method as a method in which each person or other sampling unit in the population has the same known probability of being selected. For Leedy and Ormrod (2013:207) and Matthews and Ross (2010:154) probability sampling is highly representative of the whole population where every participant has the potential to be represented in that sample. This method is simple random sampling that theoretically gives any individual case in the population a chance of being included in the sample (Strydom & Venter, 2002:205). The advantages of this method are, firstly, that it enables the avoidance of selection bias and, secondly, that it permits the precision of estimators to be assessed, using only information that is collected from the sample. This method was used to sample the TVET Colleges which provided their annual reports concerning the analysis of their student persistence and success.

4.6.4 Sample size

The choice of the sample size depends on the confidence needed in the data, the margin of error to be tolerated or the accuracy required, types of analysis to be used, and the total size of the population from which the sample is drawn (Wellman *et al.*, 2011:70). Jarboe (1999:38) stated that the sample size is determined by both statistical and practical considerations. For Tustin *et al.* (2005:361) the statistical calculations of sample sizes can only be done for probability sampling methods, as there is no statistical formula for prior calculation of the size of a non-probability sample.

As this study used a non-probability sampling method, the sample size was determined by practical concerns such as the finances, time frame and personnel impact, including the number of respondents who were present in class and willing to participate. Bearing the latter in mind and to prevent the non-response error associated with non-probability sampling, as well as to ensure that group comparisons could be made when analysing the data, the researcher interviewed four employees and distributed 100 questionnaires to each of the six TVET Colleges, totalling 24 employees and 600 students to voluntarily complete questionnaires.

4.6.5 Pilot study

As indicated in section 1.6.3.2, a pilot study is a small-scale replication of the actual study, targeting a small number of the participants with similar characteristics to those of the target group of employees for qualitative phase, which in this study were campus manager, lecturer, student support manager and the student enrolment manager from each of the six research sites. One set of questionnaires for the quantitative phase target group of students was distributed for completion by ten students enrolled for the national certificate vocational courses and ten students enrolled for the national technical education courses from Mopani South East TVET College.

Mopani South East TVET College participated only in the pilot study, and not during the actual research project. However, the data collected through the use of questionnaires for quantitative phase during the pilot study was also analysed for possible integration with the analysed data finally collected in pursuit of providing thorough answers to the formulated research questions. In line with the suggestions by De Vos (2000:183) interviewees and respondents were requested to comment on the wording of the questions, the sequence of the questions, possible redundant questions, and the inclusion of missing, but relevant questions. Based on the responses from the pilot study, all identified unclear statements, mistakes, and certain patterns of reactions were considered for pruning the questionnaire to a manageable length and acceptable layout.

The researcher requested inputs on the construction of the questionnaire from the University of South Africa's statistician to advise on the validity of items for statistical purposes. The findings from this pilot study assisted in the reformulation of the objectives of this study in terms of: consideration of the research population; elimination and/or revision of ambiguous questions; and planning for the actual research study. The next section focusses on the data collection methods used in this study.

4.7 DATA COLLECTION METHODS

Data collection refers to the way in which the data is captured in the field setting for a particular study. Primary data for this study were collected through the use of interviews and a questionnaire, whereas the secondary data sources were the related documents and reports. In a nutshell, primary data were obtained through qualitative and quantitative methods (Martins, Loubser, & Van Wyk, 1996:122). According to Welman *et al.* (2005:188), qualitative research methods intend to gather in-depth, detailed information through methods such as in-depth interviews, projective techniques and focus groups. Quantitative research methods also focus on gathering a large amount

of information through surveys such as mail, telephone and personal interviews. In support of these views, Du Plessis and Rousseau (2005:28) postulate that these methods are useful in exploratory research and are appropriate for hypotheses generation.

Without embarking on detail, the next section describes how data were collected using various methods. Table 4.5 below briefly describes and summarised the data collection methods employed.

Table 4.5: Summary of data collection instruments used

Instrument used	Description	Number of respondents targeted	Percentage (%)
Literature reviewed	Reviewed books and journal articles.		
Semi-structured interviews for phase 2 (employees)	Developed questions focusing on knowledge and live experience	Twenty four participants interviewed	
Questionnaire for phase 1 (students).	Developed questionnaire containing few questions which was divided into parts A, B, C and D.	150 respondents sampled for the questionnaire items. 600 questionnaire for actual data collection.	

4.7.1 Literature review

Chapters 2 and 3 of this study explored the literature dealing with the major research questions as highlighted in Chapter 1. The main objective of exploring the literature was to collect theoretical data to assist in addressing the problem under investigation adequately. Although the theoretical study provided the major proposition and the theoretical framework of the study, it also contained crucial data which helped in reaching the major conclusions of this study.

4.7.2 Semi-structured interviews

The primary data for this study was collected through the interviews. Teddlie and Tashakkori (2009:229) describe an interview as a research strategy that involves one person asking questions of another person. May (2011:132) and McMillan and Schumacher (2006:350; 2010), on the other hand, emphasise that in the structured interviews method each participant is asked the same question in the same way so that any differences between the answers were considered to be the real ones resulting from the deployment of a method and not from the interview context itself. The advantage of this method is that respondents can be probed and it can be administered even to participants who cannot read and/or write (Bernard, 2013:219; Leedy & Ormrod, 2005:146).

The qualitative phase of this study purposively sampled 24 TVET College employees and then subjected them to the interviews in order to collect and analyse valuable data. The interviews were recorded with the respondents' permission and then transcribed so that the researcher obtained first-hand information from the participants with regard to their knowledge and lived experiences on aspects related to the management of student retention and success in their TVET Colleges. A semi-structured interview schedule was developed with mostly open-ended interview questions outlined which provided allowance for follow-up questions from the participants' responses. The researcher established a good rapport with the participants, and ensured that they were comfortable and relaxed so as to obtain correct and valid responses from the participants.

4.7.3 Questionnaires

McDaniel and Gates (2001:289) define a questionnaire as a set of questions designed to generate the data necessary to accomplish the objectives of the investigation. It is guided by the research questions and serves as a data collection tool (Punch, 2003:30). A questionnaire provides standardisation and uniformity in the data gathering process. It standardises the wording and sequence of questions and ensures that every respondent sees and hears the same words, and every interviewer asks identical questions which can be seen as a control device. According to Webb (2002:89), a questionnaire is designed for four purposes, namely to:

- maximise the accuracy and relevancy of information to be obtained;
- maximise the participation of relevant elements in the sample;
- facilitate the gathering of information; and

- meet research objectives.

4.7.3.1 Construction and the structure of the questionnaire

A questionnaire is a popular instrument extensively used in quantitative research methodology to collect invaluable data (Gray, 2009:337; Matthews & Ross, 2010:201). In brief, a questionnaire is a research tool through which people are asked to respond to the same set of questions in a predetermined order. A questionnaire is a form containing a set of questions, especially addressed to a statistically significant number of subjects used to gather information for a survey.

An ideal questionnaire is expected to be clear, unambiguous and uniformly workable and its design must minimise potential errors from both participants and coders (Cohen & Manion, 1995). For Du Plooy-Cilliers, Davis and Bezuidenhout (2014:152) and McMillan and Schumacher (2001) a questionnaire is relatively economical, has standardised questions, can assure anonymity and it is relatively easy and effective to use questions written for specific purposes. In that regard, such questionnaires simplify and quantify responses, and participants are usually more willing to tick boxes than they are to write or type long answers.

In this study, a simple-to-understand questionnaire instrument was used (see **Appendix J**). The questionnaire items simply required the respondents to mark their choices with an **X** or a tick (✓) next to the answer that best represented their views or opinions amongst the options provided. In order to maintain interest, the questionnaire contained few items to avoid distracting and sometimes causing the respondent to either postpone completion or, ultimately, not to respond at all. The researcher ensured that the questionnaire was user friendly, whilst retaining all the required details. The Admitted Student Questionnaire (ASQ) and Cooperative Institutional Research Programme Survey (CIRP) were used to compile the measurement instrument for this study.

4.7.3.2 Distribution and collection of the questionnaires

The questionnaires were distributed to the sampled respondents and collected from the selected TVET Colleges over a period of three weeks. Letters seeking permission from the participants were sent to the TVET College Principals/CEOs requesting their written permission before conducting this research on the respective sites. The researcher delivered the questionnaires to the individual respondents personally, briefly explained the purpose of this study, requested the

respondents to complete these questionnaires and then collected them immediately. All unusable questionnaires were eliminated from this study (section 5.2).

There are distinct advantages in being able to give questions to respondents personally (Bell, 2005:148). The purpose of the study was explained to the respondents and, in some cases, questionnaires were completed on the spot. This approach is further supported by Punch (2005:100) who concurs that it is better to administer the questionnaire instrument personally than to use a third party.

4.7.4 Collection of secondary data

Official publications (secondary data) in relation to student enrolment and success rates were requested from the TVET Colleges selected to participate in this study. This data collection method is an approach that collects and analyses data sourced from the writings of social scientists and other authors used as pre-existing textual data that are already publicly available in written or audio-visual mode (Braun & Clarke, 2013:151; Curtis & Curtis, 2011:219). In supporting these views, Bell (2005:125) emphasises the essence of documentary perusal that a project investigation may require trawling through government green papers, white papers, guidance papers, government statistics, inspection reports, statutes, policy papers, as well as the scrutiny of local sources. On the other hand, Du Plooy-Cilliers, Davis and Bezuidenhout (2014:192) argue that recorded materials such as diaries, memos, yearbooks, and research reports can also be used by a researcher to make more sense of a historical event. In some research projects documentary analysis can be used to supplement the information obtained by other methods, for instance, when the reliability of evidence gathered from interviews or questions is checked (Bell, 2005:148; Punch, 2005:184).

In this study, the researcher requested the recent annual reports from the DHET and sampled TVET Colleges over a period of two to three years, 2016/17, 2017/18 and 2018/19, focusing on student enrolment, retention and academic performance as reflected in those documents, and synthesised the reported achievements and challenges as compared to the results drawn from the interviews and quantitative research.

4.8 DATA ANALYSIS

Both qualitative and quantitative data collected as explained above were analysed as guided by the type and nature of the data collected. Dey (1993:30) and Gerring (2012:78) concur that data analysis

involves the process of breaking down the collected data into smaller units to reveal their characteristic elements and structure.

Narrative description of the data collected through the qualitative method was used to explain the relationships between the variables through the use of tables and graphs. In addition, Special Packages for Social Sciences (SPSS) was used to analyse the quantitative data. Descriptive and inferential data was collected and statistical tests such as Chi-Square (to test and compare the variables), factor analysis (to reduce the data sets to manageable proportions) and ANOVA (to compare the means from the data sets) were applied. Onwuegbuzie and Teddlie (2003) state that, when analysing qualitative and quantitative data within the mixed methods framework, the research undergoes at least seven stages and some of these stages were adopted by the researcher for this study.

Table 4.6 below presents the seven stages which the researcher followed in the process of data analysis.

Table 4.6: Seven (7) steps in the data analysis process

Stages in the mixed methods	Description of each stage	Application in quantitative data analysis	Application in qualitative data analysis
1. Data Reduction	Reducing the dimensionality of the qualitative and quantitative data	Via descriptive statistics, exploratory factor analysis and cluster analysis	Via exploratory thematic analysis
2. Data Display	Pictorially describing both the qualitative and quantitative data	Using tables and graphs	Using matrices, charts, graphs, networks, lists, rubrics, and Venn diagrams
3. Data Transformation	Quantitative data are converted into narrative data that can be analysed qualitatively	Qualitative data are converted into numerical codes that can be represented statistically	
4. Data Correlation	Quantitative data is correlated with qualitative data	Qualitative data is correlated with quantitative data	
5. Data Consolidation		Both qualitative and quantitative data are combined to create new or consolidated variables	
6. Data Comparison		Involves comparing data from both the qualitative and quantitative data sources	
7. Data Integration		This is a final stage wherein both qualitative and quantitative data are integrated into either a coherent whole or two separate sets of coherent wholes	

4.8.1 Qualitative data

Qualitative data were analysed using the thematic method to determine similarities and differences between the information collected from the various sites. Two sets of qualitative data were collected through the semi-structured interviews and from various official populations. Data collection from recorded information related the topic under investigation - also known as unobtrusive methods - draw social and cultural meanings from the existing sources such as the written records, audio-visual records, physical traces or human behaviour (Fetterman, 2010; Neuman, 2011; Robinson, 2011:501).

On the other hand, Maree (2007:284) contends that analysis is a process of looking at data from different angles with a view to identifying keys in the text that will help in understanding and interpreting the raw data. It is an inductive and interactive process where researchers look for similarities and differences in the text that would corroborate or disconfirm the theory. In line with Liamputtong (2013:99) and Hesse-Biber and Leavy's (2011) views the researcher included documents such as written records, business archives, and government records, published materials such as books, journals, magazines, and newspapers in analysing the collected data in this study. The researcher used content analysis to extrapolate valuable data from official publications from the selected sites.

In addition, an interpretative phenomenological analysis and a hermeneutical analysis formed part of data analysis for the qualitative phase based on the semi-structured interviews.

Ozkan, Davis and Johnson (2006:11) define hermeneutical analysis as an interpretative approach emphasising the importance of the views of the participants based on their knowledge, experiences and their standpoint. Furthermore, the purpose of the structured interview is to obtain the lived experiences, opinions and the views of the participants with regard to their roles as personnel dealing with student support activities (Huberman & Saldana, 2014; Ozkan *et al.*, 2006).

Interview data from the participants during the qualitative phase was coded and condensed, and the themes and conclusions developed. Lune and Berg (2017), and Remler and Van Ryzin (2011:76) argue that coding is a process of tagging text or other qualitative data using a system of categories. The coding scheme, which is essentially the creation of variables, is to as the labelling and systematising of the data and notes and it can be accompanied and accomplished by using a variety of materials (Tracy, 2013:186; Flick, 2014:305). Tracy (2013:189) further describes coding as an active process of identifying data as belonging to or representing some

type of phenomenon which may be a concept, belief, action, theme, cultural practice or relationship. The data collected through the semi-structured interviews was coded and interpreted as outlined in section 6.4 of this study.

4.8.2 Quantitative data

The information obtained from students through the quantitative questionnaires were captured in an Excel spreadsheet and analysed using the SPSS. The questionnaire consisted of four parts, divided as follows: **Part A** containing general information which sought the biographical information of respondents; **Part B** assessing the availability of intervention activities regarding student retention and success in various sites and **Parts C and D** using Chi-Square tests, factor analysis and ANOVA methods to analyse the data collected.

Data from interviews and documents were analysed using the above two methods. This analysis yielded convincing descriptive results which were plotted on the tables and graphs. The two data sets, namely qualitative and quantitative, were then triangulated in order to establish and explain the differences and similarities. The triangulation method (triangulation of data) is explained in section 4.8.3.

4.8.3 Triangulation

Triangulation is viewed as a verification procedure whereby researchers search for convergence among multiple and different sources of information to form themes or categories in a study (McMillan & Schumacher, 2001; Terre Blanche, & Durkheim, 2004). It is a system of sorting through the data to find common themes or categories by eliminating overlapping areas (Cohen, Manion & Morrison, 2000:112; Wellman, Kruger, & Mitchell, 2011:143).

Confirming these views, Bailey-Becket and Turner (2000:112) assert that with the combination of multiple observations, theories, methods and empirical materials researchers can hope to overcome the weaknesses, intrinsic biases and other problems that arise from single-method, single-observer and single-theory studies. Often the purposes of triangulation in specific contexts are to obtain confirmation of findings through convergence of different perspectives.

For the purpose of this study, the three sources of data were placed at the points of a triangle, where each data source provides a philosophical starting point for the other data sources. For instance, in data collection, literature was reviewed to establish the theoretical underpinnings of the problem under

review. Also, interviews were used to collect qualitative data whereas official publications (annual reports) from DHET were perused to obtain the relevant information that might have not been collected through the literature or from interviews (qualitative) or through the questionnaire (quantitative). Lastly, questionnaires were used to collect the empirical data from the participants (quantitative).

Through this approach, comprehensive data were collected in order to formulate and draw conclusions with regard to the problem under review. The diagram below represents the three sources wherein data applicable to this study was drawn from, and how these were triangulated.

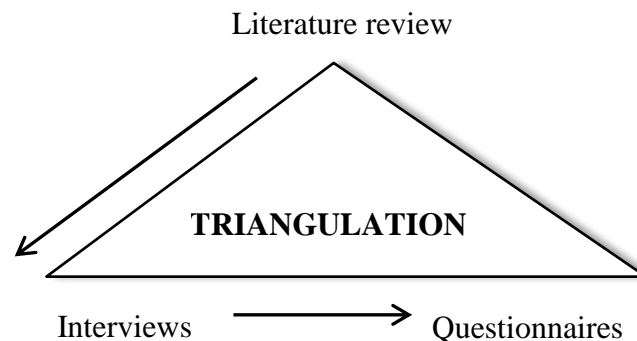


Figure 4.6: Representation of the triangulation of data sources

The above diagram represents the three data sources that were used in this study, namely: literature review, interviews, and questionnaires. The literature review was used to provide the secondary data which assisted the researcher in formulating interview questions for the TVET College employees (qualitative phase) and the construction of the questionnaires for the students (quantitative phase) within these TVET Colleges. For the four types of triangulation identified by Denzin (1994), only the data triangulation and methodological triangulation were used in this study. The researcher used both methods (qualitative and quantitative) to collect, analyse and interpret the data, and to generate the findings with regard to aspects that influence the management of student retention and success at TVET Colleges. Triangulation was used to test, compare and contrast the findings with the goal of gathering a dominant and hidden discourse (Hesse-Biber, 2010).

4.9 VALIDITY AND RELIABILITY

All methods of data collection were used in such a manner that the validity and reliability of findings were ensured (Bless & Higson-Smith, 2000; McMillan & Schumacher, 2006:324). Validity and reliability are key concepts in any form of inquiry, including this study. This section deals with validity and reliability in the context of this study.

4.9.1 Validity

Authors use the word ‘validity’ in general terms, as can be seen from some of the definitions below. Bernard (2013:45) writes that validity refers to the accuracy and trustworthiness of instruments, data, and findings in research. This definition is fully supported by Du Plooy-Cilliers *et al.* (2014:256) who write that validity is the extent to which the instrument that was selected actually reflected the reality of the constructs that were being measured. Put in simple terms, validity is about determining whether the research measured what it was supposed to measure.

MacMillan and Schumacher (2001:407) provide another dimension to the definition of validity, arguing that it is the degree to which the interpretations and concepts have mutual meanings between the participants and the researcher. In conventional usage, the term ‘validity’ refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration (Babbie & Mouton, 2004). Validity is, therefore, one of the most important characteristics of research. It is thus vital that every research instrument that is used in a study be considered for its validity. Validity measures truth, that is the extent to which data and findings present an accurate account of the events they claim to be describing (Silverman, 2006:149). Validity can also be described as a process of ensuring that the researcher should accurately measure what ought to be measured.

From the above descriptions, validity can also be attached to other concepts such as measurement, constructs, content, and sampling (both external and internal) depending on where it is used. These definitions indicate how critical validity is in the whole process of research and the researcher therefore made sure that validity was maximised in the study from beginning to end.

The researcher applied three different mechanisms to guarantee and contribute to the validity of the instruments.

4.9.2 Reliability

Reliability is concerned with the findings of research and relates to the credibility and consistency of the findings (Punch, 2005:94; Wellman *et al.*, 2011:145). Implied here is that reliability means the extent to which the results are consistent over time by getting the same answer when using the same instrument to measure something more than once, reflecting an accurate representation of the total

population under the study (Bernard, 2013:46; Joppe, 2001:1). However, Silverman (2004:285; 2006) described reliability differently, arguing that it is the degree to which the findings of the research are independent of accidental circumstances.

Reliability can be divided into internal reliability and external reliability. Internal reliability is achieved during the study through triangulation, cross examination, member checks, careful selection and training of assistant researchers, careful auditing of the data, by reaching consensus regarding the findings with the participants, and using audiotapes and video recordings to store information and computers for the processing of data, while external reliability refers to the verification of the findings of the research, when the same research is conducted by an independent researcher under the same circumstances and using the same participants (White, 2005:201).

Implied here is that reliability refers to the consistency between independent measurements of the same phenomenon wherein the same methods used by different researchers at different times under similar conditions should yield same results. Therefore, different data collection instruments, namely documents, interviews and questionnaires in this study, were used and the researcher ensured that the respondents and participants were not influenced so that they provided their opinions without prejudice. Therefore, participants and respondents were encouraged to be as objective as possible.

4.10 ETHICAL CONSIDERATIONS

The principles underlying research ethics are universal and concern issues of honesty and respect for the rights of the participants and respondents in the research project yielding credible research outcomes. Several scholars argue that ethics is one's moral and professional code of conduct that sets a standard for the attitudes and behaviour which is imperative in any research, and that consent needs to be obtained before research is conducted (Braun & Clarke, 2013:116; Du Plooy-Cilliers, Davis & Bezuidenhout, 2014:263). Similarly, Gray (2009:69) emphasises that research ethics concerns conducting research in a way that goes beyond merely adopting the most appropriate research methodology, but conducting research in a responsible and morally defensible way. On the other hand, for Clough and Nutbrown (2002:84) researchers are expected to be more than technically competent, enter into chartered intimacies, and open themselves to their subjects' feeling worlds, whether these worlds are congenial to them or repulsive. In that regard, this form of human conduct has to conform to the generally accepted norms and values (Mouton, 2001:238).

Fox and Bayat (2007:148) define ethics in research as getting the informed consent of those who are going to be interviewed, questioned, observed or from whom materials are taken. In addition, participants or respondents need to be treated with due ethical consideration, both for their own part and for the information they provide for the purpose of any investigation project (Walliman, 2005:344). Supporting these views Wellman *et al.* (2011:181) emphasise that ethical considerations are deliberated at three different stages of a research project, namely when recruiting participants, during the intervention or measurement procedures, and when releasing the obtained results. For that reason, participants must not be put into situations where they may be at risk of either physical or psychological harm as a result of their participation (Denzin & Lincoln, 2000:140; McMillan & Schumacher, 2001:196).

In this current study, the researcher ensured that ethical considerations were taken care of within the context of the above guidelines. How each of the ethical issues was managed is briefly explained below.

4.10.1 Permission

It is a requirement that permission for conducting research within an organisation be obtained from those who own the premises or the property prior to the actual research (Gray, 2009:84). For this current study, the researcher requested permission from the TVET College Principals/Chief Executive Officers in advance to ensure that the process was properly managed and that ethical clearance was granted before the commencement of the actual investigation. The researcher sent out a standard letter to all the TVET College Principals/CEOs requesting permission to conduct a study in those different TVET Colleges (**Appendix J**).

4.10.2 Confidentiality

Confidentiality forms part of the ethical considerations whereby participants and respondents are assured that their names would be treated with and in the strictest confidence. Bell (2005:48) and Lubbe (2003:41) concur on emphasising that confidentiality is a promise that one will not be identified or presented in an identifiable form, while anonymity is a promise that even the researcher will not be able to tell which responses came from which participants. Anonymity in this context refers actually what happens as none of the questionnaires can be linked to individual respondents.

According to Costley, Elliot and Gibbs (2010:32) researchers have a responsibility regarding the rights of participants.

Implied here is that researchers are responsible for ensuring that participants' and respondents' rights are protected throughout the data collection stages with the intention to promote the principle of trust between the researcher and the participants. As a result of this undertaking, the researcher ensured that anonymity was maintained, the privacy of all participants and respondents in this study was respected, and that their views could not be traced back to them.

4.10.3 Voluntary participation and informed consent

All participants and respondents were informed in writing that they had the right not to participate in the study or during the course of this study if they decided not to participate, irrespective of the fact that permission should have been granted to conduct this investigation. The principle of the informed consent was thoroughly explained in an attachment to the instruments and then clearly explained in order to ensure that all the participants were well aware of their rights in participating.

4.11 SUMMARY

Chapter 4 provided the link between the literature study reflected in chapters 2 and 3, with the empirical results presented in chapters 5 and 6 of this study. The design, methods, methodologies, approaches and strategies employed in this study were fully outlined and contextualised. The entire process of data management in respect of both qualitative and quantitative data collected through the instruments was explored and the justification for their use in this research project was explained. This was followed by a full description of sampling procedures, of the process of data collection, of the analysis and of ethical consideration and management.

The next four chapters, namely 5, 6, 7, and 8 presented the findings as well as the discussions of the results and recommendations emanating from the discussions. Chapters 5 and 6 provide a detailed account of the quantitative and qualitative results.

CHAPTER 5

RESEARCH FINDINGS ON DATA QUANTITATIVELY COLLECTED

5.1 INTRODUCTION

Chapter 4 dealt with the research methodology and the fundamental reasons for using the mixed-methods research approach. In this regard, the rationale for choosing both quantitative and qualitative data collection and data analysis techniques, and the ethics guiding the research were discussed. In Chapters 5 and 6, research findings on the empirical data collected quantitatively and qualitatively are analysed and presented respectively. The empirical investigation was executed in order to achieve the research objectives announced in sections 1.6 and 4.8.2.

Chapter 5 comprises a presentation of the research findings from quantitative data collected through a self-administered questionnaire. This chapter first presents the realized sample as compared to the planned sample to determine the response rate for this study. It then provides the sociodemographic profile of the respondents, followed by research findings as descriptive and inferential statistical analyses of different variables influencing student retention and success. Lastly, this chapter discusses the reliability and validity of the measurement scale, and then presents the research objectives and the hypothesis testing results.

5.2 QUESTIONNAIRE DISTRIBUTION AND VARIABLES INFLUENCING STUDENT RETENTION AND SUCCESS

This section focuses on the analysis of the questionnaires which were completed by the Technical and Vocational Education and Training (TVET) College students in Limpopo Province who participated in the study. As frequency distribution refers to the number of instances in a survey wherein it is associated with the Likert scales (Gray, 2009:463), frequency data implies the adding up of numbers of participants in each category (Hinton, 2014:231) to represent frequencies as the number of times a particular score appears in a set of data (Argyrous, 2011:283).

In this study the researcher distributed 100 questionnaires from November to December 2017 to each of the six TVET Colleges in Limpopo Province. From the total of 600 students in the six TVET Colleges involved in this study, only 455 participated and returned the completed questionnaires as

part of this survey. A summarized breakdown of the response rate of student respondents at each of the six TVET Colleges representing the research sites for this study is shown in Table 5.1.

Table 5.1: Response rate of student respondents

Technical and Vocational Education and Training College Name	Population	Planned Sample	Realised sample	Response rate
Capricorn	9 886	100	85	85%
Lephalale	5 274	100	64	64%
Letaba	4 557	100	75	75%
Sekhukhune	4 188	100	76	76%
Vhembe	12 680	100	82	82%
Waterberg	3 549	100	73	73%
Total	77 534	600	455	76%

From Table 5.1, it is clear that the overall response rate for the study was 76%, as 455 questionnaires from the 600 distributed were completed. As explained in section 4.7.3.2, 145 unusable questionnaires were eliminated from the study. The valid questionnaires which were analysed translated into the response rate of 76%. The questionnaires were coded immediately after the fieldwork had been completed. The coded data were captured and cleared of possible coding and data capturing errors. Sections 5.2.1 to 5.2.5 provide an overview of the descriptive analysis of the dataset by reporting on the findings relating to variables influencing student retention and success as obtained from questions from the different sections of the questionnaire. After completing the administration of the questionnaires, the SPSS statistical software package was used for the statistical analysis of the data, utilising the assistance of an official statistician at the University of South Africa.

The nature of the questionnaire used in this study required the application of the non-parametric statistical technique such as the Mann-Whitney U and Kruskal-Wallis tests which are relevant for testing for the differences between two independent groups on a continuous measure (Mann & Whitney, 1947; Nachar, 2008, 13; Pallant, 2011:227). The researcher further used the different statistical methods to determine how the Mann-Whitney U and Kruskal-Wallis tests variables correlate students with the level of their persistence or withdrawal without completing their qualifications as explained in section 5.5. The next section explains the distribution of frequencies of data collected on each question of each section of the questionnaire.

5.2.1 Socio-demographic profile of respondents

Section A of the questionnaire (Questions 1 to 19) was devoted to respondents' personal details. This was done to gain insight into the socio-demographic profiles of students who enrolled at the TVET institutions in Limpopo Province. These details included information on gender, age, Grade 12 average marks, mode or type of registration, course or qualification enrolled for, distance from permanent homes (where students' families are) to the College, place where students stay while studying at the TVET College, permanent place where a student was born and grew up, both parents or guardians' highest qualifications, and both parents or guardians' income.

The tables and figures in this section present the findings on student responses to all the questions in the questionnaire (see **Appendix J** for the questionnaire). Firstly, the sociodemographic profiles of the respondents are discussed pertaining to the questions of **Part A** of the questionnaire.

The gender distribution of respondents (statement V1 in the questionnaire) is presented in Figure 5.1.

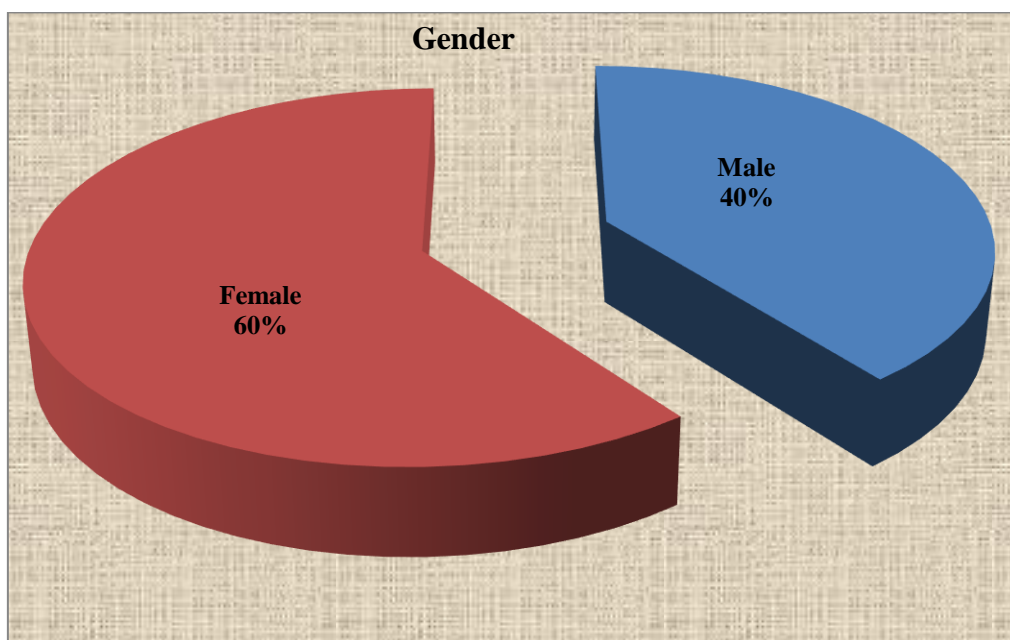


Figure 5.1: Student respondents according to gender

Figure 5.1 indicates that 60% (273) of the 455 respondents who responded to the questionnaires were female whereas 40% (182) were male. For the purpose of further statistical testing, a decision was made to fuse the missing responses into the females and males as this small percentage would not

allow for proper group comparisons during further statistical analysis. More females participated in this study than male students which may be attributed to:

- a general higher enrolment by female students at the TVET Colleges
- more female students participating in the previously male dominated engineering programmes
- TVET Colleges increasing female enrolments to address gender equity

Figure 5.2 depicts the age groups of respondents who participated in this study.

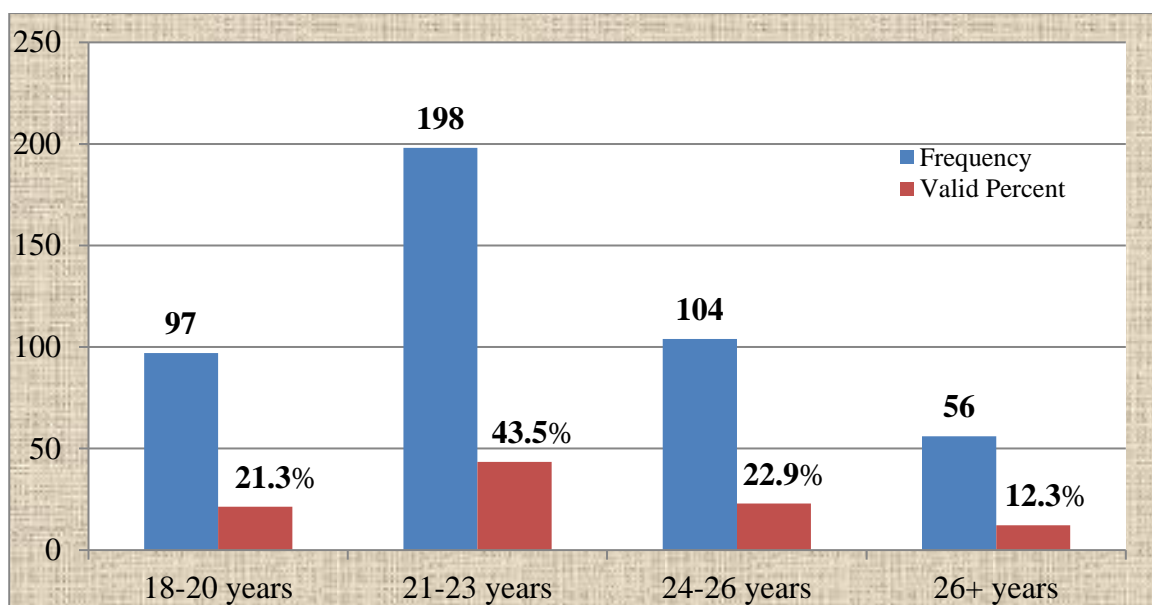


Figure 5.2: Distribution of respondents according to age

From Figure 5.2, it is evident that the majority of the respondents, namely 198 (43.5%) were between 21 and 23 years of age, followed by 104 (22.9%) respondents between 24 and 26 years, 97 (21.3%) respondents between 18 and 20 years, and 56 respondents (12.3%) 26 years and older. The large percentage of students between ages 21 to 23 correlates with a typical sample of students who first completed their high school education and then enrolled at the TVET College later.

Figure 5.3 portrays the distribution of respondents according to their Grade 12 average percentage marks (statement V5 in the questionnaire).

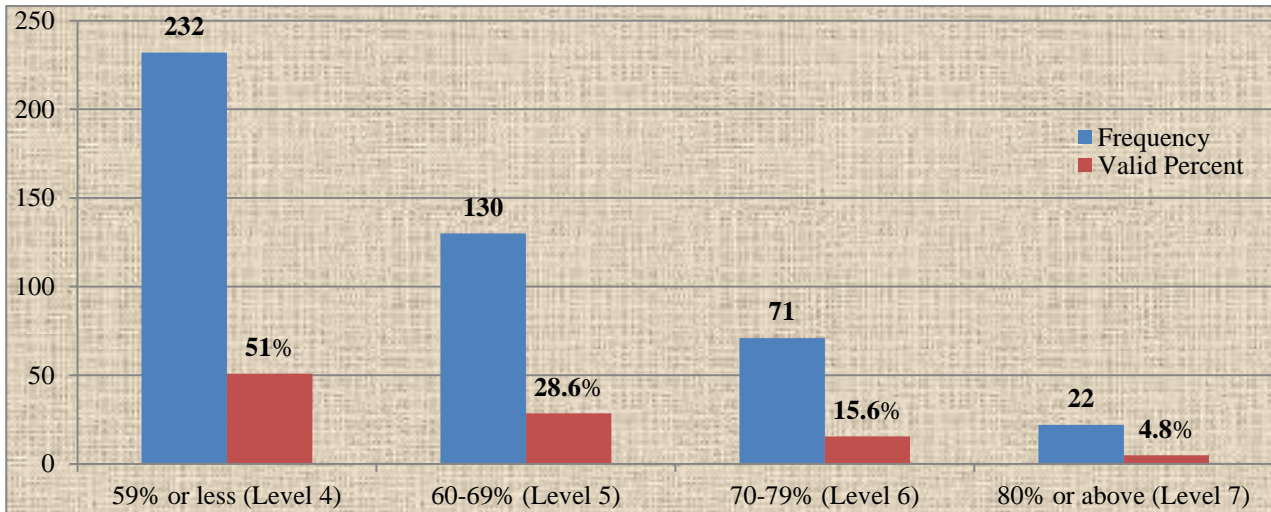


Figure 5.3: Distribution of respondents according to their Grade 12 average percentage mark

With regard to Figure 5.3, the following are clear:

- only 22 (4.8%) of the respondents had an average of 80% or above (Level 7) in their final Grade 12 examinations
- a total of 71 (15.6%) respondents had an average of 70-79% (Level 6) in their Grade 12 final examinations
- more than half, namely 232 (51%) of the respondents, obtained an average percentage of 59% or less (Level 4) whereas 130 (28.6%) respondents had an average of 60-69% (Level 5) in their final Grade 12 examinations. This low average percentage mark may be the result of the low school pass requirements as well as the low admission average mark requirements that differ from one TVET College to another.

The mode of registration distribution of respondents (statement V7 in the questionnaire) is portrayed in figure 5.4.

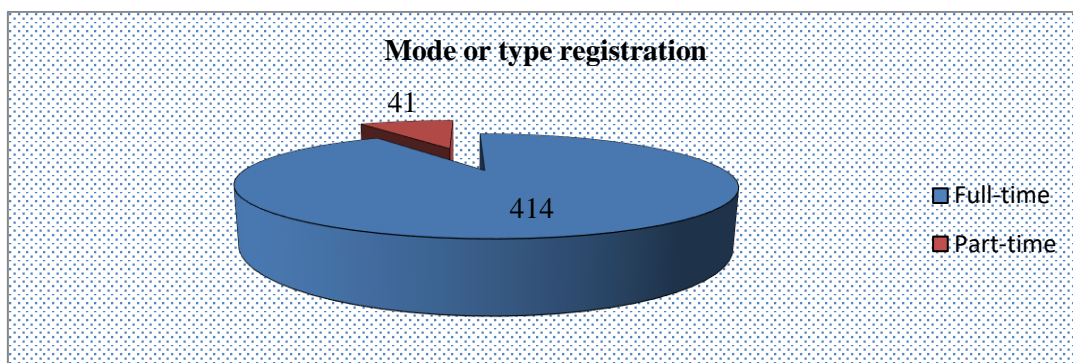


Figure 5.4: Distribution of respondents according to the mode of registration

From Figure 5.4 it can be inferred that more respondents were full-time students. A total of 394 (90.9%) were full-time students and only 41 (9.1%) part-time. The high percentage of 90.9% full-time students could be attributed to the fact that most of these students are still young and unemployed and therefore in the majority whereas the part-time students are employed and therefore attend courses as and when necessary relating to work-related needs.

Figure 5.5 presents course distribution according to respondents' enrolment choices (statement V9 in the questionnaire).

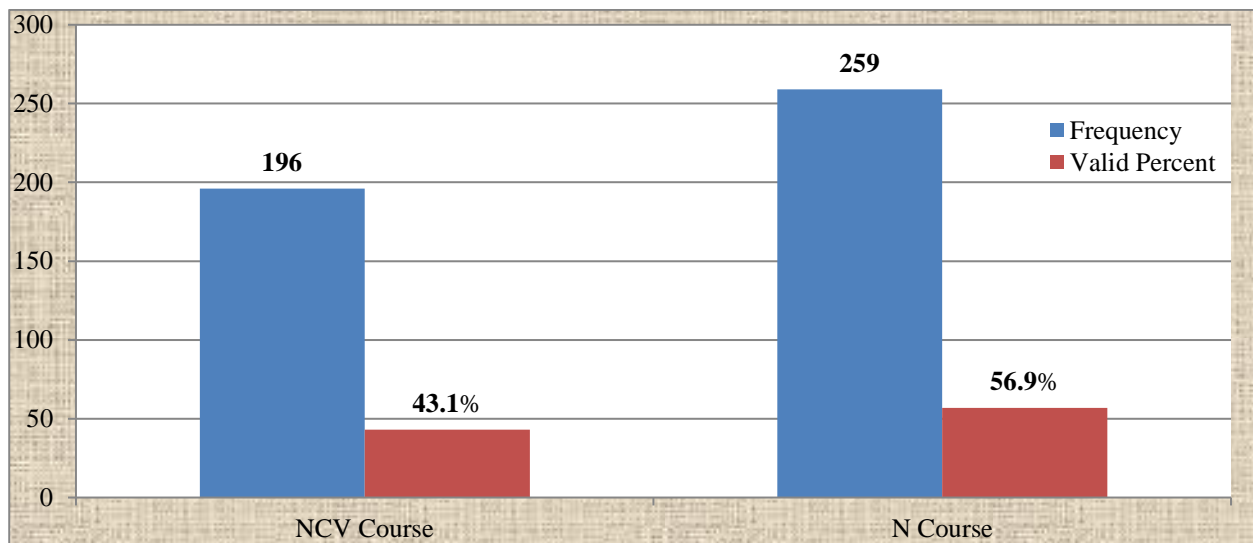


Figure 5.5: Distribution of respondents according to course enrolments

It can be seen from Figure 5.5 that 56.9% (259) of respondents enrolled for the N Course whilst 43.1% (196) of the respondents enrolled for the NCV Course. Despite the fact that the National Student Financial Aid Scheme (NSFAS) allocation focuses on funding students enrolled for the NCV programmes, this enrolment distribution suggests that the majority of students (56.9%) select and enrol for the N-Courses. This enrolment trend further predicts that students studying the N-Courses are likely to persist studying until completion of the studies at the TVET College irrespective of their financial situation.

The distance in kilometres from respondents' home of birth to the TVET College (statement V13 in the questionnaire) is presented in Table 5.2.

Table 5.2: Distance in kilometres from respondents' homes to the TVET College

	Distance in Kilometres	Frequency	Percentage
	10km or less	98	21.5
	11-30km	79	17.4
	31-80km	122	26.8
	More than 80km	156	34.3
Total		455	100

From Table 5.2, it can be inferred that the majority of respondents, namely 78.5%, have to travel 11km and more to the TVET College they are attending. The majority of respondents may be studying far from their permanent homes mainly due to urbanization or because of the limited number of post-school institutions available in their areas of residence.

For further statistical testing, having the TVET College they are attending further or less than 80km from their permanent homes, the 11-30km distance was combined with the distance of 31-80km resulting in three groups of students, namely nearby (10km or less) students, reasonably far (11-30km and 31-80km) students, and far (80km and more) students attending at the TVET Colleges. The different groups of distances provide an indication of students who need transport support as they regularly commute to and from the learning institutions of choice.

These statistics may assist individual TVET Colleges in determining those students who need both accommodation and transport based on the distances away from their permanent homes. For instance, a total of 21.5% of respondents (nearby students) may only need transport assistance, 44.2% of respondents (reasonable far) may need both accommodation and transport while 34.3% of respondents (far) may be required to be accommodated at the TVET College hostels to eliminate both accommodation and transport problems.

Figure 5.6 depicts respondents' place of residence while studying (statement V13 in the questionnaire).

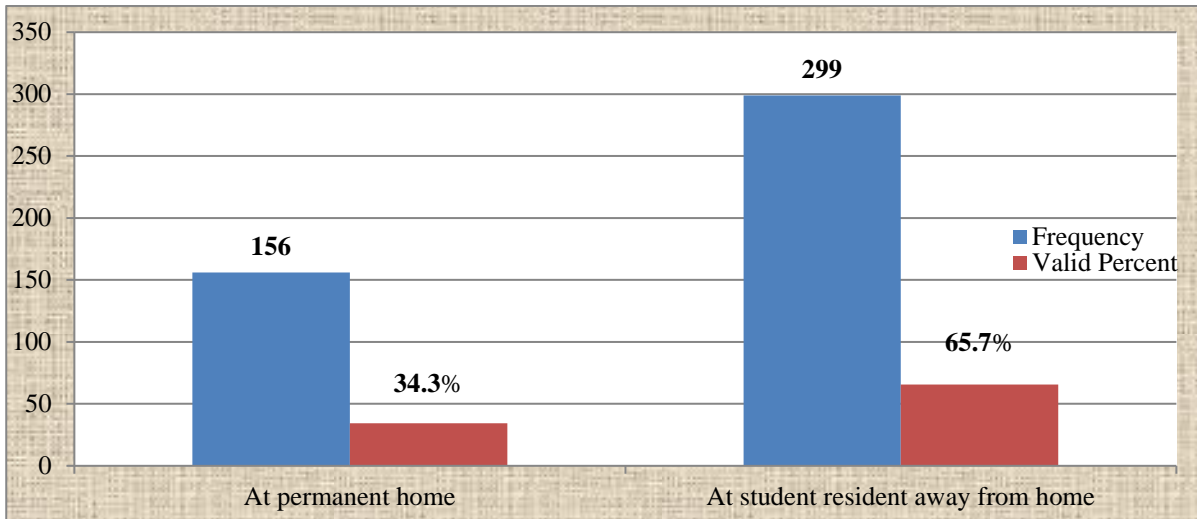


Figure 5.6: Respondents' place of residence while studying at a TVET College

From Figure 5.6 it is clear that the majority of respondents, namely 299 (65.7%), did not stay at their home of birth while studying at a TVET College. Only 156 (34.3%) respondents stayed at their permanent homes while studying at the TVET College. This could be because, unlike with schools that are supplied more evenly, the few TVET Colleges in the Limpopo Province (7 out of a total of 50 TVET Colleges countrywide) are situated in towns and/or semi-urban areas that are far from the rural communities from where most of the TVET College students come. Also, the fact that TVET Colleges provide a limited number of courses for students to choose from, these limited offerings could imply that the specific course is available only at a distant TVET College.

Information on the place where students were born and where they grew up as an indication of whether they have been residents of the Limpopo Province for their whole life is presented in Figure 5.7 (statement V15 in the questionnaire).

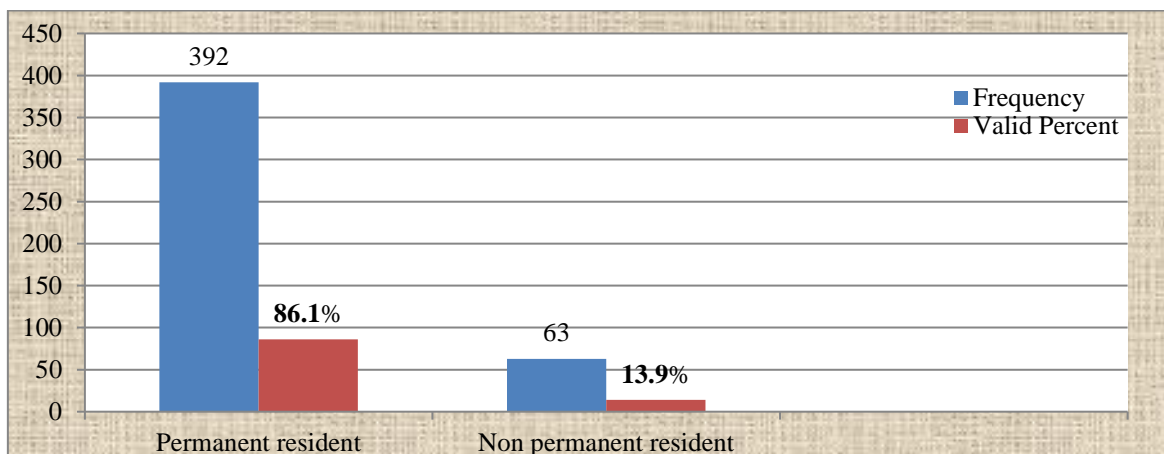


Figure 5.7: Respondents born and raised in the Limpopo Province

The results in Figure 5.7 indicate that the majority of respondents, namely 392 (86.1%) are permanent residents of Limpopo Province whereas only 63 (13.9%) respondents are not originally from Limpopo Province. This suggests that prospective students who are not originally from Limpopo Province tend not to enrol at a TVET College in Limpopo Province, which could possibly relate to institutional image and reputation, or merely to the fact that logistics such as transport and accommodation are challenging matters at the TVET Colleges in Limpopo Province.

Figure 5.8 presents the highest qualification of the father (male guardian) of respondents (statement V16 in the questionnaire).

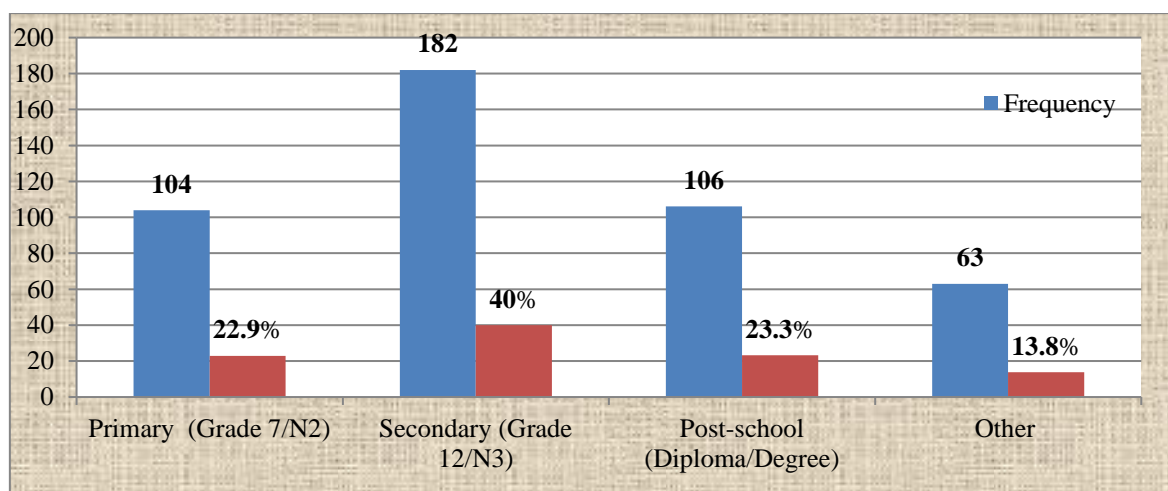


Figure 5.8: Highest qualification of fathers (male guardians) of respondents

From Figure 5.8 it is evident that the majority of respondents, namely 182 (40%), indicated that their fathers or male guardians obtained a secondary school or an equivalent qualification (Grade 12 or N3), followed by 106 respondents (23.3%) whose fathers or male guardians obtained a post-school qualification (Diploma or Degree) and 104 (22.9%) having a primary school or equivalent qualification (Grade 7 or N2). The fact that the majority of respondents' fathers or female guardians have a final school year or equivalent qualification indicates an environment with a significant literacy level to be conducive for children's study engagement. This suggests that students' chances for success with their studies are positive as the literacy level in the home environment, which is reasonably satisfactory, serves as positive support for students' success with their studies. It is possible that parents with Grade 7 or N2 as their highest qualifications used their socio-economic experiences as their main source of inspiration to their children.

Figure 5.9 presents the highest qualification of mothers (female guardians) of respondents (statement V17 in the questionnaire).

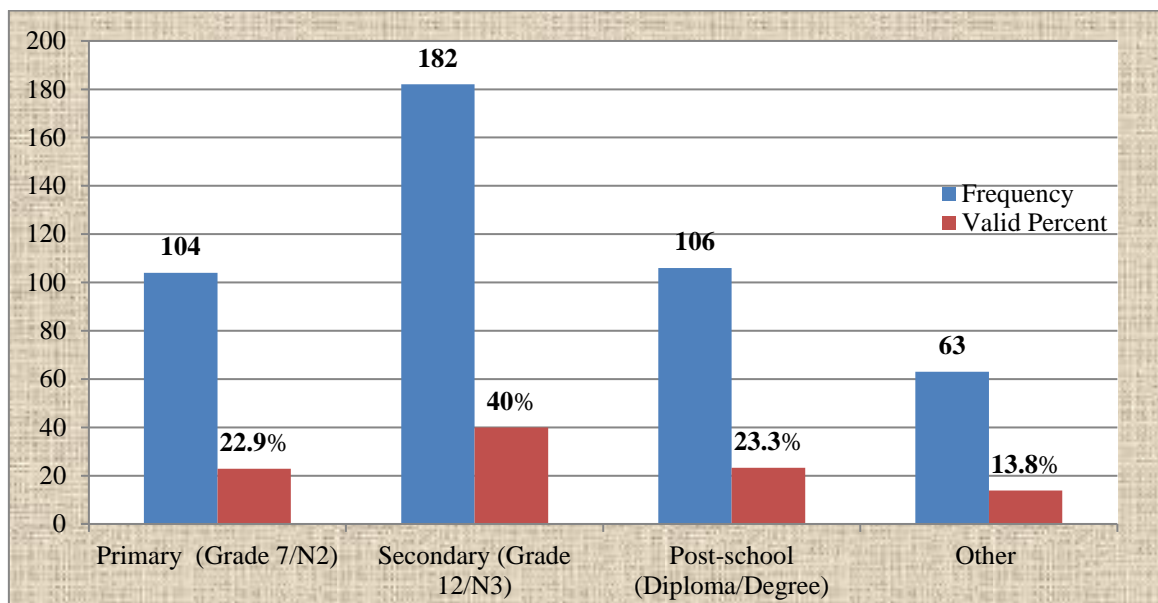


Figure 5.9: Highest qualification of mothers (female guardians) of respondents

It is clear from Figure 5.9 that 182 (40%) respondents confirmed that their mothers or female guardians obtained a secondary school or equivalent qualification (Grade 12 or N3) with 106 (23.3%) respondents highlighting that their mothers or female guardians obtained a post-school qualification (Diploma or Degree). Only 104 (22.9%) respondents indicated that their mothers or female guardians obtained a primary school or equivalent qualification (Grade 7 or N2) with 63 (13.8%) having obtained other qualifications. The literacy levels of respondents' mothers or female guardians relate positively with that of their fathers or male guardians, indicating that the majority of respondents grew up in homes with a satisfactory literacy level to prepare them sufficiently for perseverance and success with their TVET College education training. These various ratings of parents' qualification suggest that the level of parental support varies based on their academic status. Parents with secondary school or equivalent qualifications are likely to be professionally classified based on their academic qualifications may be more hopeful about their children's College prospects and are actively involved in their children's education.

The income of respondents' fathers (male guardians) is presented in Figure 5.10 (statement V18 in the questionnaire).

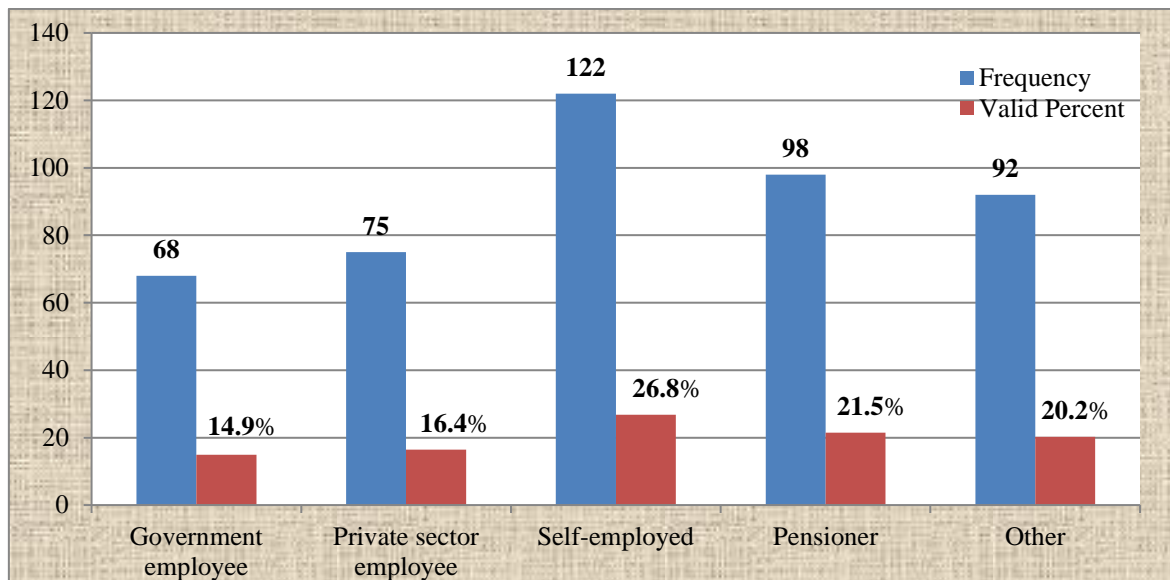


Figure 5.10: Income of fathers (male guardians) of respondents

From Figure 5.10 the following can be inferred:

- at least 122 (26.8%) respondents indicated that their fathers or male guardians are self-employed, 98 (21.5%) respondents cited that their fathers (guardians) are pensioners with 92 (20.2%) respondents whose fathers (guardians) have other sources of income.
- the lowest representations are employed by government and the private environment, namely 68 (14.9%) fathers (guardians) employed by government and 75 (16.4%) by the private environment.

Students from the unemployed and self-employed backgrounds face a variety of barriers that prevent them from completing their intended academic goals. Unemployment status compels fathers or guardians to develop entrepreneurship skills for the purpose of generating the household income that contributes to their children's technical and vocational academic persistence.

The income of respondents' mothers (female guardians) is depicted in Figure 5.11 (V19 in the questionnaire).

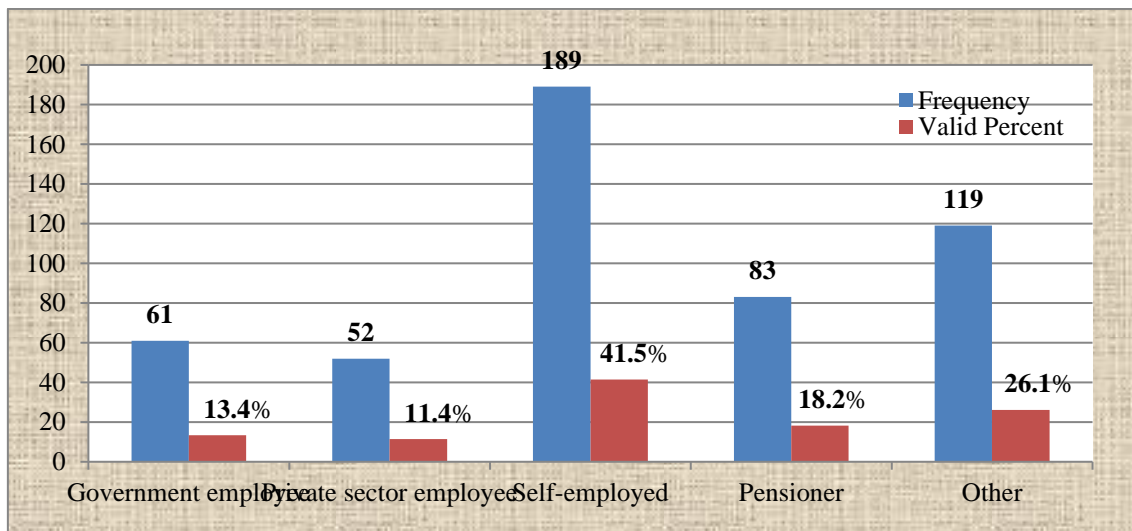


Figure 5.11: Income of mothers (female guardians) of respondents

Remarks on the information from Figure 5.11 are the following:

- a significant number, namely 189 (41.5%) of respondents, indicated that their mothers or female guardians are self-employed, with 119 (26.1%) respondents' mothers or female guardians having an income from other sources.
- a total of 83 (18.2%) respondents' mothers or female guardians are pensioners.
- the lowest representations are from government and the private environment with 61 (13.4%) respondents' mothers employed by government and 52 (11.4%) by the private environment.

Self-employed mothers or guardians encourage students to successfully complete their technical and vocational to alleviate poverty at home as well as paying for their siblings' education.

The self-employment cohort with technical and vocational entrepreneurial skills enhances student employability opportunity and motivates Technical and Vocational students by providing experiential learning and work placement to those students.

The next sections of descriptive analysis focus on the themes pertaining to the institutional image and reputation of the TVET College influencing student retention and success, factors improving student success at a TVET College and factors mainly responsible for student retention leading to eventual success with TVET College education. These themes constitute the remaining questions of the questionnaire.

Section 5.2.2 entails research findings relating to the image and reputation of the TVET College whereby 18 sources of information were identified to be used by the TVET College resulting from **Part B** of the questionnaire. Section 5.2.3 focuses on the research findings entailing 17 aspects considered to be important for students to remain at the TVET College they selected for enrollment, resulting from **Part C** of the questionnaire. Section 5.2.4 presents the research findings pertaining to 37 predictors of student retention and success at a TVET College, resulting from **Part D** of the questionnaire.

5.2.2 Institutional image and reputation information sources of the TVET Colleges

Part B of the questionnaire determine the extent to which institutional image and reputation information sources influence the management of student recruitment, retention and success in the TVET College institutions. The information sources on institutional image and reputation refer to the sources such as the media that TVET Colleges use during their student recruitment processes.

The statements in **Part B** of the questionnaire required respondents to indicate on a scale of 1 to 5 how important each statement is relating to choosing to enrol and remain at the specific TVET College. Table 5.3 reports on the average scores (1 = not important, 2 = of little importance, 3 = important, 4 = very important, and 5 = extremely important) based on the responses from respondents. In addition, the mean, and standard deviation for each variable are also included as depicted in Table 5.3.

Table 5.3: Information sources on the image and reputation of the TVET College

Information sources on image and reputation	V	1 No important	2 Of little importance	3 Important	4 Very important	5 Extremely important	6 Number of respondents (n)	7 Mean	8 Std. Deviation
Printed media (such as newspapers/ magazines)	V20.1	25.9%	15.7%	36.9%	14.2%	7.3%	455	2.61	1.217
Advertisement on radio stations	V20.2	23.5%	14.2%	30.1%	20.4%	11.9%	455	2.84	1.319
Advertisement on TV	V20.3	25.7%	12.4%	29.6%	17.7%	14.6%	455	2.84	1.373
School visiting College/Campus during open days	V20.4	7.3%	12.8%	26.1%	21.2%	32.5%	455	3.59	1.259
TVET College website	V20.5	7.5%	9.1%	27.4%	25.9%	30.1%	455	3.62	1.214

TVET College publications (catalogs, brochures, etc.)	V20.6	13.3%	9.7%	26.8%	25.0%	25.2%	455	3.39	1.314
Visits by admission TVET College staff at my high school	V20.7	19.5%	10.0%	26.5%	21.5%	22.6%	455	3.18	1.399
Electronic (website/internet) communication with the TVET College	V20.8	13.5%	9.5%	27.7%	23.2%	26.1%	455	3.39	1.326
Our school visits to this Campus	V20.9	22.6%	16.6%	29.0%	15.0%	16.8%	455	2.87	1.370
On-campus interview with admission staff	V20.10	14.8%	19.2%	32.5%	23.5%	10.0%	455	2.95	1.188
Quality of academic facilities (library, laboratories, computers, etc.)	V20.11	8.8%	10.4%	21.0%	21.9%	37.8%	455	3.69	1.306
On campus student residence/housing/hostels	V20.12	23.2%	8.6%	25.9%	18.6%	23.7%	455	3.11	1.462
Cleanliness/neatness of College/Campus premises	V20.13	12.2%	10.6%	21.7%	20.6%	35.0%	455	3.55	1.372
Safety and security at this TVET College/Campus	V20.14	7.7%	7.5%	19.2%	18.1%	47.3%	455	3.90	1.285
Surroundings (neighbourhood, town or city)	V20.15	14.6%	13.3%	29.2%	25.7%	17.3%	455	3.18	1.275
This TVET College is located where employment opportunities are easily accessible	V20.16	14.6%	14.4%	27.2%	18.8%	25.0%	455	3.25	1.360
Ease of getting home from this College	V20.17	16.2%	12.6%	25.9%	21.0%	24.3%	455	3.24	1.379
This is the only TVET College that provides for my academic needs	V20.18	13.5%	11.9%	26.1%	21.9%	26.5%	455	3.36	1.343
Valid N (list-wise)							455		

Table 5.3 reports on the results of all 18 statements relating to how respondents rated the usefulness of the different sources of information that the TVET Colleges provide when recruiting students, influencing retention and eventual success with studies. The research findings depicted in Table 5.3 are discussed next.

Theme 1 (Statement 1): *printed media such as newspapers or magazines*

It is clear that 58.4% of respondents rated printed media such as newspapers or magazines as important to extremely important to have influenced their choice of enrolment at the specific TVET College, with the remaining 41.6% of respondents not considering printed media as important, or of less importance to have influenced their TVET College choice. The findings suggest that printed media should be used to convince students to enrolment.

Theme 1 (Statements 2 and 3): *factors influencing student enrolment decisions*

Statements 2 and 3 are combined to form one statement translating into 62.1% of the respondents who rated the advertisement on radio and TV stations as important to extremely important sources of information on enrolment choices whilst 37.9% considered this item as not important or of little importance. The fact that the majority of respondents rated advertisements on radio and television stations as important in stimulating them to enrol implies that radio and television can serve as a meaningful source to encourage enquiring students to enrol at the specific TVET College, with the possible potential to complete their studies at the same institution.

Theme 1 (Statement 4): *School visiting college or campus during open days*

The statement on schools visiting Colleges or campuses during open days was rated by 79.9% of the respondents as import to extremely important way of recruiting potential students, while 20.1% of the respondents ranked this statement not important to of little importance. The general response to statement 4 suggests that the TVET College open day activities play an influential role in students' decision to enrol for a certain course, and remain studying at a particular TVET College until completion of their studies. TVET College open days which are the initial institution attendance for students from schools provide factors such students' academic resources, student support services options, college qualification aspirations, continuous enrollment options, college experiences, and financial aids that play a greater role in predicting student's eventual college completion.

Theme 1 (Statements 5 and 8): *Student recruitment initiatives*

Statements 5 (TVET College website) and 8 (electronic such as website or internet communication with the TVET College) are grouped together to form a new group called 'student recruitment initiatives' that is inclusive of the similar responses. A total of 81.6% of respondents considered communication with the TVET College as import to extremely important, 18.4% of respondents rated this item as not important to little importance. The fact that the majority of respondents, namely, 81.6% rated communicating with the TVET College through the use of the website or internet

facilities as an important to extremely important media in assisting them to decide when selecting the TVET College, suggests that TVET College may use internet facilities to recruit students and as a source of study references, with the intention of increasing student retention and success.

The calculation of the cost of student recruitment processes is relatively straightforward. These costs of fulfilling the admissions function to include both the human and material resources; however, the indirect costs must be figured out into an assessment of the return on investment by comparing the recruited students against student retention and success at a given period. There is no enrolment equilibrium as an institutional goal wherein the TVET College recruits a new student to replace each student who drop outs before earning his or her qualification.

Theme 1 (Statement 6): *TVET College publications*

The TVET College publications such as catalogs and brochures were rated important to extremely important by an average of 77.0% of respondents. Although some respondents (23.0%) rated the influence of the TVET College publications such as catalogs and brochures on students' decision to choose to enrol at post school institution as not important to of little importance, the majority of respondents, namely 77.0%, consider the TVET College publications as a source of encouragement to potential students in selecting a TVET College as their preferred institution of learning until they complete their studies.

Theme 1 (Statement 7, 9 and 10): *Factors influencing student decisions*

Noticing similarities between visits by admission TVET College staff to high school, school visits to the campus and on-campus interviews with admission staff, it was decided to collapse these statements to form one statement called 'factors influencing student decisions'. College staff visiting schools was rated by 66% as important to extremely important. It is interesting to note that this statement was rated by 34% respondents as not important to of little importance. It could be that while some schools involve TVET Colleges as part of their career guidance opportunities other schools do not interact with institution of higher learning for the provision of such assistance to the students.

Theme 1 (Statement 11): *Quality of academic facilities such as library, and computer laboratories*

The quality of academic facilities which include library, laboratories, and computers was rated by 19.2% of the respondents as not important to of little importance, whereas 80.8% of the respondents rated this statement at an average of important to extremely important. The varied responses could be that some TVET Colleges may have facilities such as a library and computer laboratories whereas

some don't have or that a group of these respondents utilized some (not all) of these facilities. Different types of learning centres such as libraries and computer laboratories are designed to assist students in competencies such as writing, mathematics and comprehension learning skills. It is clear that an absolute majority of students (80.8%) considered the quality of the libraries and computer laboratories as central to the provision of study skills that eventually improve student retention and success.

Theme 1 (Statement 12): *On campus student residence or housing or hostels*

The results found that 68.2% of the respondents ranked the provision of on campus residence or housing or hostels as import to extremely important. It is interesting that 31.8% of the respondents rated this item not important to of little importance. This could result from a situation wherein some TVET Colleges provide student accommodations whereas others don't. It could also be that some students stay far away from their campuses whereas some students stay nearer.

It is apparent that the majority of students, namely 68.2%, consider on campus student residence as influential for their TVET College choice and their intention to remain studying until completing their qualifications. Living in a campus student residence or hostels as compared to living at home provides a sufficient environment to focus on studies and gives access to other academic facilities that improve student retention and success.

Theme 1 (Statement 13): *Cleanliness or neatness of College or campus premises*

22.8% respondents rate the cleanliness or neatness of the College or campus premises as not important to of little importance, 77.2% respondents rated the same statement as important to extremely important. The varied but evenly distributed responses signaled that the College or campus environment arrangements impact students differently. It is definite that the majority of students, namely 77.2%, considered the campus cleanliness and neatness as an extremely important factor that motivates them to pursue their studies until they successfully complete their qualifications.

Theme 1 (Statement 14): *Safety and security at this TVET College or Campus*

The above statistics indicates that the majority of respondents, namely 84.8%, rated safety and security provided by the College or campus premises as important to extremely important, followed by 15.2% of respondents who ranked this item as not important or of little importance. This analysis suggests that the safe educational environment influences the decision to choose to enrol and remain in a particular institution until they complete their studies. Crime and an unsafe environment is

everybody's concern. An absolute majority of students, namely 84.8%, valued safety and security at TVET Colleges as extremely important, suggesting that they chose to enrol and study at an institution where safety is prioritized. A safe and secured institution of higher learning motivates students to focus more on their academic activities within the same institution resulting in improved student retention and success.

Theme 1 (Statement 15): *Surroundings such as neighbourhood, town or city*

The TVET College surroundings such as neighbourhood town or city statement were rated by 27.9% of respondents as not important to of little importance. The findings also reveal that 72.1% of the respondents rated this item as important to extremely important. This analysis suggests that, for some reasons, a large number of respondents, namely 72.1%, preferred TVET Colleges situated closer to the urban or semi-urban areas with potential employment opportunities that encourage students to persist studying until completing their studies.

Theme 1 (Statement 16): *This TVET College is located where employment opportunities are easily accessible*

The statistics indicate that 71% rated the location of the TVET College as a place where employment opportunities are easily accessible as important to extremely important. Only 29% of respondents rated this statement as not important to of little importance. Attending Technical and Vocational Education institutions is one way of accessing employment opportunities. The majority of students, namely 71%, preferred to enrol at TVET Colleges located in areas where employment opportunities are accessible which also motivate them to persevere studying until completing their studies.

Theme 1 (Statement 17): *Ease of getting home from this College*

Ease of getting home from College was rated by 71.2% respondents as very important to extremely important. The findings also reveal that 28.8% of respondents rated this statement as not important to of little importance. These varied responses could be that some students travel long distances to and from the TVET College where they study. Having a lot of student commuters detracts from the institutions' ability to create a climate that encourages student engagement with campuses resources, facilities and personnel which can negatively influence student retention and success. It is irrefutable that the majority of students, namely 71.2%, valued ease getting to their homes from the institutions where they are studying as extremely important, suggesting that they would have an opportunity to participate in student support services activities that promote student retention and success.

Theme 1 (Statement 18): *This is the only TVET College that provides for my academic needs*

This is the only TVET College that provides for my academic needs was rated by 25.4% as not important to of little importance, and 74.6% respondents as important to extremely important. Low educational aspirations have a negative impact on student retention and success. It is clear that the majority of students, namely 74.6%, regarded the TVET College that provides for their academic needs as extremely important suggesting that a relevant academic programme that meets their educational goals serves to decrease withdrawal from their studies.

The next section reports the average important scores related to main factors that improve student persistence and academic performance at a TVET College insitution.

5.2.3 Factors influencing student persistence and academic performance at TVET Colleges

Part C of the questionnaire determined the potential factors that influence student persistence and academic performance that may influence the management of retention and success at a TVET College. In this regard, **Part C** focuses on factors that influence respondents' choices of courses and choices of specific TVET College for enrolment, which possibly influence retention and eventual success with studies. Responses were collected based on a 5-point Likert scale ranging from not important to very important.

Table 5.4 highlights the number of responses, the mean and standard deviation for each factor (variable) considered when choosing to enrol at the specific TVET College.

Table 5.4: Factors influencing students' course and TVET College choices to possibly enhance retention and success

Factors influencing choice of course and choice of TVET college	V	1. Not important	2. Slightly important	3. Neutral	4. Moderately important	5. Very important	6. Number of respondents	8. Mean	9. Std. Deviation
Programme or course I intended to study at TVET College	V21.1	9.7%	5.1%	13.7%	17.7%	53.8%	455	4.01	1.324

Overall employer perception of the TVET College's quality of education	V21.2	10.6%	6.4%	20.6%	31.4%	31.0%	455	3.66	1.268
Emphasis on the importance of technical and vocational education	V21.3	9.5%	5.8%	24.1%	28.8%	31.9%	455	3.68	1.242
Easy access to faculty	V21.4	12.8%	6.6%	25.4%	23.2%	31.9%	455	3.55	1.338
Affordable cost to my family	V21.5	17.9%	13.5%	18.1%	15.9%	34.5%	455	3.36	1.505
Available financial assistance (bursary or loans or scholarships) opportunities	V21.6	7.7%	5.8%	19.2%	16.6%	50.7%	455	3.96	1.281
Motivation from my previous high school teacher(s)	V21.7	13.1%	6.2%	21.5%	26.1%	33.2%	455	3.61	1.344
Advice from family members/guardians/friends who studied at a TVET College	V21.8	8.0%	6.6%	22.1%	21.7%	41.6%	455	3.82	1.262
Potential well-paying jobs after completing this course	V21.9	10.4%	5.1%	17.9%	21.2%	45.4%	455	3.86	1.323
Available employment opportunities to qualifying students	V21.10	8.2%	6.4%	21.9%	23.9%	39.6%	455	3.80	1.255
Government encouraged students to study for this qualification	V21.11	9.3%	7.3%	21.2%	22.6%	39.6%	455	3.76	1.296
Qualification that matches my expectations	V21.12	7.3%	7.3%	18.6%	30.1%	36.7%	455	3.82	1.212
Pre-college and college entrance preparatory programmes	V21.13	14.4%	9.1%	28.1%	29.6%	18.8%	455	3.30	1.279
Social life status/extracurricular activities (debate, drama, music, sports etc.)	V21.14	15.7%	11.3%	21.0%	25.9%	26.1%	455	3.35	1.390
Alternative entry requirements (various selection and admission requirements)	V21.15	13.7%	8.6%	26.3%	26.5%	24.8%	455	3.40	1.315
Better option for those whose admissions are rejected by the universities	V21.16	9.5%	7.7%	23.5%	19.0%	40.3%	455	3.73	1.314
Valid N (list-wise)							455		

Findings on the 16 statements relating to factors influencing students' course choices and TVET College choices motivating potential retention and eventual success are discussed next.

Theme 2 (Statement 1): *The course I intended to study at the TVET College*

The majority of respondents, namely 71.5%, rated the course they chose to study at the TVET College as moderately important to very important whereas 14.8% considered their course choice as not important at all to slightly important. The respondents who did not have an opinion on the importance of their course choices represented 13.7% of the total of 455 students acting as respondents. It is clear that the majority of respondents, namely 71.5%, considered the course they have enrolled for as important whether very or moderately important, which suggests possible motivation to persevere with their studies in order to complete this important course successfully.

Theme 2 (Statement 2): *Considering employer perception of the quality of tuition of the TVET College*

A total of 62.4% of students considered the perception of employers of the quality of TVET College tuition as moderately important to very important with 17% as not important to slightly important. A total of 20.6% of students are not sure about the importance of employer perception of the quality of TVET College tuition. It is clear that the majority of students, namely 62.4%, value employer perception of the quality of TVET College tuition. Knowing that employers consider TVET College tuition as acceptable should motivate students to stay and succeed with their studies.

Theme 2 (Statement 3): *Emphasis on the importance of technical and vocational education*

Respondents provided varied responses for this statement wherein the majority of students, namely 60.7%, rated the emphasis on the importance of technical and vocational education as moderately important to very important. 15.3% of respondents considered this item as not important to slightly important whereas 24.1% rated it neutral. While students responded differently all the TVET Colleges, the Department of Higher Education and Educational Environments promote the TVET Environment through the use of different media.

Theme 2 (Statement 4): *Easy access to faculty*

The easy access to faculty statement was rated by 55.2% respondents as moderately important to very important. It is interesting to note that only 19.4% of respondents rated this item on an average of not important to slightly important, and a total of 25.4% of respondents rated this statement as neutral, suggesting that TVET Colleges use different admission requirements for various faculties. It can also be argued that respondents preferred to remain neutral because they were undecided or did not remember the selection criteria used for the faculty they enrolled for.

Theme 2 (Statement 5): *Affordable cost to my family*

A total of 50.5% of respondents rated affordable cost to my family as moderately important to very important when choosing to enrol and study at a TVET College whereas 31.4% rated this item on an average of not important to slightly important. The analysis further revealed that 18.1% of respondents considered this statement as neutral, which could mean that the students' family can afford the cost for the TVET College education. Financial concerns are commonly cited by the students from historical disadvantaged groups as important reasons students give for their early departure from institutions of higher learning.

Theme 2 (Statement 6): *Available financial assistance such as bursaries or loans or scholarship opportunities*

The majority of respondents, namely 67.3%, considered this statement as moderately important to very important whereas 13.5% of respondents rated this item as not important to slightly important whereas 19.2% were neutral. Given these statistic, it would seem that a large number (67.3%) of students consider the availability of the financial assistance when selecting to enrol at a particular TVET College. It is apparent that the majority of students who are dominantly from lower socio-economic groups experience financial burdens that influence their decision to drop out before successfully completing their College qualifications. Institutional financial aid is another cost which is lost any time when a student departs from the TVET College without completing his or her qualification.

Theme 2 (Statement 7): *Motivation from my previous high school teacher(s)*

The study results reveal that 19.3% of respondents rated this item as not important to slightly important, and 59.2% rated this statement moderately important to very important. It is interesting to note that 21.5% rated this item neutral suggesting that some students decided to enrol at the TVET College as a choice of their own.

It is irrefutable that the majority of students, namely 59.2%, consider motivation from my previous high schools as part of the factors that influence them to choose to study at a particular TVET College. High school academic performance constitutes the first indicator of the level of academic preparation of students to confront the academic challenges they confront in the TVET College environment.

Theme 2 (Statement 8): *Advice from family members or guardians or friends who studied at a TVET College*

It is interesting to note that the majority of students, namely 63.3%, considered the advice from family members, guardians or friends who studied at a TVET College as moderately important to very important whereas 14.6% rated the same item as not important to slightly important. This study further reveals that 22.1% rated this statement as neutral. This statistic suggests that students considered the advice from family members or guardians or friends who once studied at a TVET College. The majority of students (63.3%) definitely value the advice from various members of the society who previously studied similar TVET College courses as a source of motivation for them to remain studying until completion of their qualifications.

Theme 2 (Statement 9): *Potential well-paying jobs after completing this course*

The potential for getting a well-paying job after completing this course was rated by 66.6% as moderately important to very important, 15.5% as not important to slightly important whilst 17.9% of respondents considered this item as neutral. It could be that the respondents were undecided as to what career path to pursue. A well-paying job is everybody's ambition, particularly those from the low socio-economic groups. The fact that the majority of respondents rated potential well-paying jobs after completing this course as very important in stimulating them to enrol insinuate that well-paying jobs can be utilised as effective source of encouragement when recruiting students to enrol at the specific TVET College, as well as motivating those already enrolled to persist studying until completing their studies at the same learning institution.

Theme 2 (Statement 10): *Available employment opportunities to qualifying students*

14.6% respondents rated the available employment opportunities to qualifying students as not important to slightly important whereas 21.9% ranked this item as neutral. The majority of the respondents, namely 63.5%, rated the available employment opportunities to qualifying students as moderately important to very important. The varied responses suggest that, although some of the respondents chose to enrol at the TVET College because of the employment opportunities available to qualifying students, others enrolled due to other reasons.

It is apparent that the large number of students (63.5%) considered available employment opportunities to qualifying students as very important in deciding to study at a particular TVET College, suggesting that this must be incorporated as a productive instrument for recruiting students

to enrol at the specific TVET College, and inspire students to focus on their studies until they achieve their academic goals without changing to another institution.

Theme 2 (Statement 11): *Government encouraged students to study for this qualification or course*

The research results reveal that the government encouraged students to study for this qualification or course was rated by 62.2% respondents as moderately important to very important. The results further indicate that 16.6% of the respondents rated this item as not important to slightly important and 21.2% remained neutral with regard to the influence of this item. This analysis manifested that a large number of students (62.2%) decided to choose certain field of studies based on the information from different government publications. It is without doubt that the majority of respondents were encouraged by the government's information sources as they choose to study for their qualifications suggesting the possibilities of motivating them to persevere with their studies in order to successfully complete their course and hopefully be employed in government institutions.

Theme 2 (Statement 12): *Qualification that matches my expectations*

Responses to this statement varied from very important to neutral meaning that the respondents were widely divided regarding their opinions and experiences on the qualification that matches their expectations. These results indicated that 66.8% of respondents rated this item as moderately important to very important, 14.6% not important to slightly important, and 18.6% of respondents remained neutral. The above even distribution of responses suggests that some students enrolled at the TVET Colleges with clear expectations regarding the qualifications they chose whereas some did not.

Lack of academic preparation for TVET College level may result in students being frustrated and eventually dropping out before completing their studies. This trend clearly implies that the majority of students (66.8%) acceded to the fact that qualifications meeting their expectations play a vital important role in student retention and success.

Theme 2 (Statement 13): *Pre-college and college entrance preparatory programmes*

Varied responses were provided for this statement wherein 48.4% respondents rated pre-college and college entrance preparatory programmes as moderately important to very important. It is noted that 23.5% of respondents rated this statement as not important to slightly important whereas 28.1% respondents rated it to be neutral. These different responses could imply that whether TVET Colleges offer different pre-college programmes and college entrance preparatory programmes students

continue studying towards their intended academic goals. The role of high school curriculum in impacting students' decision to enrol at an institution of higher learning and remain studying until completing the qualification is critical. It is irrefutable that the majority of respondents, namely 48.4%, considered the pre-college and college entrance preparatory programmes as very important, which suggests possible preparedness for persistence with their studies in order to successfully complete this important qualification.

Theme 2 (Statement 14): *Social life status or extracurricular activities such as debate, drama, music, sports etc.*

Social life status or extracurricular activities (debate, drama, music, sports etc.) was rated by 52% of respondents as moderately important to very important. It is interesting to notice that 27% of respondents considered this statement not important to slightly important, 21.0% rated this item as neutral. These statistics suggest that the majority of students (52%) value the TVET College social life status or extracurricular activities as very influential in deciding and selecting a particular TVET College to enrol at and remain studying at the same institution until completion of qualification.

Theme 2 (Statement 15): *Alternative entry requirements (various selection and admission requirements)*

The study results reveal that 51.4% of respondents rated alternative entry requirements (various selection and admission requirements) as moderately important to very important. It is also noted that 22.3% rated this statement as not important to slightly important whereas the other 26.3% respondents remained neutral which suggests that some TVET Colleges offer various alternative entry requirements whereas some use only fixed selection and admission requirements. It is apparent that the majority of students, namely 51.4%, considered alternative entry requirements to the TVET College as very important which should motivate students to remain studying at the same institution until completion of their academic goals.

Theme 2 (Statement 16): *Better option for those whose admissions are rejected by the universities*

A better option for those whose admissions are rejected by the universities was rated by 59.3% of respondents as moderately important to a very important factor to consider when choosing to enrol at a TVET College. The results further reveal that 17.2% of respondents rated this statement on an average of not important to slightly important whereas 23.5% considered this item as neutral. Overall, the response of 59.3% confirms that most of the students considered other institutions of higher learning before deciding to enrol at the TVET College suggesting that when an opportunity arises for

these students to be accepted by other institutions at a later stage, they may withdraw from the College before completing their intended qualification.

5.2.4 Factors relating to initial student support services motivating or inhibiting student retention and success at TVET Colleges

Part D of the questionnaire focused on the factors relating to student support services activities which influence students' persistence to achieve success with their studies at a TVET College. Section D is divided into parts **D1** and **D2**. **Part D1** determines the extent to which factors representing initial student support improve student perseverance at a TVET College whereas **Part D2** focuses on student support-related factors enhancing or inhibiting student perseverance and success on a continuous basis.

Table 5.5 reports the scores (1 = Not important, 2 = Slightly important, 3 = Neutral, 4 = Moderately important, and 5 = Very important) based on the responses from the sample of 455 students.

Table 5.5: Student support factors initially motivating/inhibiting student perseverance and success at TVET Colleges

Student support factors for initial perseverance and success at a TVET College	V	1 Not important	2 Slightly important	3 Neutral	4 Moderately important	5 Very important	6 Number of respondents	7 Mean	8 Std. Deviation
Induction or orientation programme that prepares students for the college environment	V22.1	6.2%	8.8%	18.8%	17.0%	49.1%	455	3.95	1.259
Course/qualification that prepares me for employment opportunities	V22.2	2.0%	3.3%	13.9%	20.8%	60.0%	455	4.33	0.970
Course/ qualification content that matches students' expectations	V22.3	2.7%	6.0%	13.5%	30.8%	47.1%	455	4.13	1.033
Relevant career guidance offered immediately after registration	V22.4	9.1%	8.0%	14.4%	22.6%	46.0%	455	3.88	1.319
Effective academic support activities	V22.5	7.1%	10.0%	23.0%	25.2%	34.7%	455	3.70	1.237

Conducive campus climate for diverse students (i.e. student from different backgrounds)	V22.6	3.5%	8.2%	25.9%	26.3%	36.1%	455	3.84	1.113
Friendly administrative and academic staff	V22.7	11.1%	8.0%	54.4%	9.1%	17.5%	455	3.14	1.138
Flexible mode of study (afternoon, evening, Saturday classes)	V22.8	16.4%	6.6%	20.8%	20.1%	36.1%	455	3.54	1.446
Links or functional partnerships with the industry or business	V22.9	11.5%	10.8%	26.1%	24.6%	27.0%	455	3.45	1.301
Available pre-college and college entrance requirements to secondary school students	V22.10	8.4%	8.8%	24.3%	24.8%	33.6%	455	3.66	1.257
Schools and TVET Colleges jointly prepare students for the College education	V22.11	7.1%	11.1%	20.6%	29.6%	31.6%	455	3.68	1.224
College/campus visit programme as a factor in students' enrolment decision	V22.12	6.6%	11.5%	22.3%	27.0%	32.5%	455	3.68	1.225
Provision of ongoing college support	V22.13	11.3%	10.2%	24.6%	28.1%	25.9%	455	3.48	1.285
Provision of a bridging programme for applicants with minimum entry requirements	V22.14	16.2%	10.4%	21.7%	29.9%	21.9%	455	3.32	1.354
Adequate knowledge of subject matter	V22.15	5.1%	8.2%	18.6%	32.1%	36.1%	455	3.86	1.145
Inviting potential employers to speak to students at the campus	V22.16	12.2%	8.0%	16.4%	21.9%	41.6%	455	3.73	1.385
Valid N (list-wise)							455		

Research findings from the 16 statements as depicted in Table 5.5 regarding initial student support to students at a TVET College are discussed next.

Theme 3 (Statement 1): *Student induction programme preparing students for the college environment*

A student induction programme as part of student support services that prepare students for the college environment was rated by 66.1% of respondents as moderately important to very important while 15% considered it not important to slightly important. A total of 18.8% of respondents remained

neutral on the influence of a student induction programme as important support services to students. It is clear that the majority of students, namely 66.1%, valued proper induction to engender student perseverance and eventual success with studying at a TVET College.

Theme 3 (Statement 2): *Course preparing student for employment opportunities*

An absolute majority of respondents, namely 80.8%, ranked the course they were enrolled for as moderately important to very important in preparing students for employment opportunities. A total of 5.3% of respondents ranked the statement as not important to slightly important with 13.9% of respondents remaining neutral on their courses' functionality to prepare them for employment. Generally, the findings suggest that students perceive the courses they are enrolled for to prepare them for employment opportunities which imply that this perception should motivate students to persist studying in order to find relevant employment.

Theme 3 (Statement 3): *Course or qualification content that matches students' expectations*

The distribution of responses in this statement varied wherein 77.8% rated this item as moderately important to very important, 8.7% of respondents considered it as not important to slightly important while 13.5% ranked the same statement as neutral. The analysis of the responses to this statement reveals that the course or qualification content is in line with some students' expectations whilst it is not to others. It is definite that the majority of students, namely 77.8%, consider the course or qualification content that matches their expectations as a very important source of motivation for student retention and success.

Theme 3 (Statement 4): *Relevant career guidance offered immediately after registration*

The majority of respondents, namely 68.6%, ranked the relevant career guidance offered immediately after registration as moderately important to very important. A total of 17.1% of respondents rated the statement not important to slightly important while 14.4% rated the same item as neutral. This trend suggests that the emphasis for career guidance detailing the content breakdown on specific courses to students has to be offered in preparation for the TVET College education. Student career development is critical to TVET College and career readiness wherein student-informed career decision making is critical to student college major stability, time to qualification attainment, and ultimately career and employment readiness. It is evident that the majority of students (68.6%) value the relevant career guidance offered immediately after registration as moderately important to very important which, if it is correctly offered, can keep students focused on their academic activities until they achieve their qualifications.

Theme 3 (Statement 5): *Effective academic support activities*

Effective academic support activity was rated by 59.9% of respondents as moderately important to very important, and 17.1% of respondents ranked the statement as not important to slightly important. A total of 23.0% of respondents considered this item as neutral. The above analysis on whether students consider academic support to be increasing their academic performance or not indicates that the effectiveness of academic support varies. It could be that the provision of academic support differs from one TVET College to other and/or some students do not participate in the academic support activities at all. The fundamental purpose of academic support is to assist students in becoming effective agents for their own lifelong learning and development. It is irrefutable that the majority of students (59.9%) regard academic support activities as very important in encouraging them to enrol at a particular institution and remain studying until they obtain their qualifications.

Theme 3 (Statement 6): *Conducive campus climate for diverse students (student from different background)*

Conducive campus climate for diverse students was rated by 62.4% of respondents as slightly important to very important whereas 11.7% of respondents rated the same statement as moderately important. The results further show that 25.9% of respondents remained neutral. The analysis demonstrates that most campus environments are conducive for students from different backgrounds. It is apparent that the majority of students (62.4%) consider conducive campus climate for diverse students as very important and such could encourage students to continue studying until completion of their qualifications.

Theme 3 (Statement 7): *Friendly administrative and academic staff*

The study reveals that 19.1% of respondents considered friendly administrative and academic staff as not important to slightly important while 26.5% of respondents rated the statement as moderately important to very important. A total of respondents, namely 54.4%, rated the item neutral. The analysis indicates that the most of the respondents were undecided with regard to how the TVET College employees influence their decision to choose to enrol at the TVET College. Institutions of higher learning administrators in partnership with academic personnel who share the importance of student retention and success can strongly advocate for the establishment of a campus community that values and focuses on creating conditions where students could be academically successful. It is clear that the majority of respondents (54.4%) remained neutral regarding the importance of college employees' friendliness when working with students within the institution which may encourage students to drop out before completing their qualifications.

Theme 3 (Statement 8): *Flexible mode of study such as afternoon, evening, Saturday classes etc.*

It is clear that the majority of respondents, namely 56.2%, consider flexible mode of study (such as afternoon, evening, Saturday classes) as moderately important to very important, whereas 23% of respondents rated the statement not important to slightly important. The research findings further indicate that 20.8% of respondents remained neutral. This study confirms that most of the students regard different mode of study as foundational for their continuity of their studies which is likely to attract students to enrol and utilize these various modes of study to complete their important academic goals.

Theme 3 (Statement 9): *Links or functional partnerships with the industry or business*

The links or a functional partnership with the industry or business statement was rated by 51.6% respondents as moderately important to very important. A total of 22.3% of respondents ranked the statement not important to slightly important whereas 26.1% of respondents rated it neutral. This statistic demonstrates that most of the TVET Colleges in partnership with public and private organizations assist them in achieving their academic performance. It is irrefutable that the majority of students (51.6%) considered the functional partnerships between the industry and TVET College as very important. These mutual partnerships assist in providing experiential learning which forms part of work readiness and create student employability opportunities.

Theme 3 (Statement 10, 11 and 12): *TVET College and schools collaborations*

It was decided to collapse available pre-college and college entrance requirements to secondary school students, schools and TVET Colleges jointly prepare students for the college education, and college or campus visit programme as a factor in students' enrolment decision to form a new group called TVET 'college and schools collaborations'. The statistics reveal that the majority of respondents, namely 59.7%, rated the TVET College and schools collaborations as slightly important to very important. The research findings also reveal that 17.8% respondents considered the statement as not important to slightly important and 22.4% remained neutral. These results indicate that a functional collaboration between TVET College and schools that promote higher learning education well before students enrolled at the TVET College increased the academic performance. This study further suggests that the collaboration between schools and TVET College increases the awareness of the new educational environment.

Theme 3 (Statement 13): provision of ongoing college support

Responses regarding the provision of ongoing college support revealed that 54% of respondents considered the item as a moderately important to very important factor for increasing student success, 21.4% ranked the statement as not important to slightly important and 24.6% remained neutral. This trend demonstrated that the provision of ongoing college support is much needed for improving students' academic performance. A student who persists is one who continues to enrol at the institution of higher learning after matriculation and further his or her studies until obtaining his or her qualifications. An ongoing academic support requires that the institution of learning provide resources to ensure that students recruited to and enrolled at the College remain studying within the same institution until completion of their goals.

Theme 3 (Statement 14): *Provision of a bridging programme for applicants with minimum entry requirements*

Provision of a bridging programme for applicants with minimum entry requirements was rated by 51.8% as moderately important to very important while 26.5% of respondents ranked the statement as not important to slightly important. 21.7% of respondents rated the item as neutral. This statistic may mean that, while the majority of the TVET Colleges provide a bridging programme for applicants with minimum entry requirements, some do not offer it.

The beginning of January of each year is characterized by most of the recently matriculated students desperately searching for registration at TVET Colleges. This trend is mainly because of matriculates who did not apply in advance or whose Grade twelve subjects or marks do not meet the minimum entry requirements. The majority of students (51.8%) clearly conceded that bridging programmes are very important in assisting those who did not meet the minimum entry requirements. The provision of bridging courses also academically prepares students for retention and success.

Theme 3 (Statement 15): *Adequate knowledge of subject matter*

The majority of respondents, namely 68.1%, revealed that adequate knowledge of subject matter is moderately important to very important in relation to an academic support that increases student success. The findings further reveal that 13.3% of respondents ranked this statement as not important to slightly important whereas 18.6% remained neutral. The TVET College is expected to offer a variety of courses or qualifications. Reflected in this analysis is that the provision of adequate knowledgeable subject matter is critical for increasing students' performance resulting in improved student retention and success.

Theme 3 (Statement 16): *Inviting potential employers to speak to students at the campus*

Inviting potential employers to speak to students at the campus was rated by 63.5% of respondents as moderately important to very important. A total of 20.1% of respondents considered this statement not important to slightly important whereas 16.4% rated the same statement neutral. The research findings confirm that inviting potential employers to speak to students at the campus is considered as one of the key elements that increases students’ performance and should be treated as part of the functional partnerships. It is evident that the absolute majority of students (63.5%) valued being addressed by potential employers implying that this perception should motivate students to persist studying in order to find relevant employment after completing their qualifications.

5.2.5 Factors relating to continuous student support services motivating or inhibiting student retention and success at a TVET College insitution

Part D2 of the questionnaire focuses on student support factors continuously motivating or inhibiting student retention and success at a TVET College insitution.

Table 5.6 reports the average scores (1 = Not at all influential, 2 = Slightly influential, 3 = Somewhat influential, 4 = Very influential, and 5 = Extremely influential) based on the responses from the 455 students who participated in the study.

Table 5.6: Student support services factors that continuously motivating/inhibiting student retention and success at a TVET College insitution

Student support factors continuously motivating/inhibiting student retention and success at a TVET College	V	1. Not at all influential	2. Slightly influential	3. Somewhat influential	4. Very influential	5. Strongly influential	6. Number of respondent	7. Mean	8. Std. Deviation
My academic performance encourages me to focus on studying hard	V23.1	1.5%	1.5%	11.5%	21.7%	63.7%	455	4.44	0.873
Social involvement motivates me to continue studying at this college	V23.2	9.1%	9.7%	21.7%	28.8%	30.8%	455	3.63	1.261
Expectations differed from the recruitment materials	V23.3	9.7%	10.0%	33.2%	31.2%	15.9%	455	3.34	1.151
Learning experiences, e.g. Wrong or second choice of course selection	V23.4	8.0%	6.0%	64.2%	10.8%	11.1%	455	3.12	0.964

Insufficient effective student orientation and induction	V23.5	9.7%	11.5%	29.4%	27.9%	21.5%	455	3.41	1.220
Quality of teaching and learning that integrates study skills	V23.6	6.0%	9.1%	23.5%	27.9%	33.6%	455	3.75	1.185
Regular feedback on students' assessments	V23.7	11.3%	5.8%	22.6%	29.9%	30.5%	455	3.63	1.280
Constructive feedback on students' academic progress	V23.8	5.1%	8.8%	24.8%	29.4%	31.9%	455	3.74	1.145
Outdated facilitation/teaching methodology (inadequate or minimum student participation)	V23.9	8.8%	11.5%	28.5%	26.1%	25.0%	455	3.47	1.229
Monotonous and boring teaching approaches	V23.10	23.9%	16.8%	24.8%	18.1%	16.4%	455	2.87	1.395
Assistance with language policy factor (good command of medium instruction for teaching and learning)	V23.11	13.1%	11.3%	23.9%	25.7%	26.1%	455	3.41	1.331
Other family responsibilities after school	V23.12	13.7%	11.9%	27.7%	22.1%	24.6%	455	3.33	1.332
Inadequate of conducive study facilities and living space	V23.13	10.4%	9.7%	31.0%	28.5%	20.4%	455	3.39	1.211
Adequate student support services facilities	V23.14	6.9%	12.8%	24.6%	27.9%	27.9%	455	3.58	1.212
Effective career guidance, academic support and advice services	V23.15	7.7%	10.4%	22.8%	25.4%	33.6%	455	3.67	1.253
Inadequate supplementary learning activities (additional lessons, peer tutoring)	V23.16	13.5%	11.9%	23.7%	25.2%	25.7%	455	3.38	1.343
Poor quality of teaching and learning materials/ lecture handouts	V23.17	15.3%	13.9%	23.7%	23.2%	23.9%	455	3.27	1.367
Lecturer absenteeism	V23.18	19.5%	11.5%	24.3%	21.0%	23.7%	455	3.19	1.423
Inadequate student motivation	V23.19	15.5%	9.3%	25.0%	27.2%	23.0%	455	3.33	1.341
Poor class attendance by students	V23.20	16.6%	11.9%	21.7%	24.1%	25.7%	455	3.31	1.401
Lecturers coming late or leaving classes before the end of teaching sessions	V23.21	21.5%	8.4%	19.9%	23.5%	26.8%	455	3.26	1.477
Valid N (list-wise)							455		

Table 5.6 reports on the research findings from an analysis of the 21 statements pertaining to respondents' ranking of the student support factors continuously influencing students to either persist or withdraw from the TVET College.

Theme 4 (Statement 1 and 2): *Academic performance and social involvement as sources of encouragement*

Statements 1 and 2 (academic performance) were combined as a source of encouragement to motivate students to persevere and eventually succeed with their studies. The majority of respondents, namely 72.5%, rated their academic performance and social involvement in TVET College activities as very influential to strongly influential factors motivating them to persevere and achieve success with their studies. A total of 10.9% of respondents ranked this statement as not at all influential to slightly influential whereas 16.6% respondents rated academic performance and social involvement in TVET college activities as somewhat influential. These results reflect how much studying hard may motivate a student to remain focused on the goals to be achieved because success breeds success. It is clear that focusing continuously and dedicatedly on studying encourages sustained improvement resulting in eventual success with TVET College studies.

Theme 4 (Statement 3): *Expectations differing from recruitment materials*

33.2% of respondents rated their expectations with studying at the TVET College differing from the recruitment materials as somehow influential, with 19.7% respondents ranking the statement as not at all influential to slightly influential and 47.1% of respondents rating the statement as very influential to strongly influential.

The research finding from this analysis demonstrates that students' experiences are different from what they expected based on what the recruitment materials contained which confuses students. Such confusion results in disillusion, hampering possible retention and eventual success with their studies.

Theme 4 (Statement 4): *Learning experiences e.g. wrong or second choice of course selection*

64.1% of the respondents rated learning experiences, e.g. wrong or second choice of course selection, as somewhat influential. Furthermore, the findings reveal that 14% of the respondents ranked this statement as not at all influential to slightly influential, and that 21.9% of respondents ranked this statement as very influential to strongly influential. These results reflect how very important the choice is of course to be studied before enrolling at institution of higher learning. It is apparent that the majority of students, namely 64.1%, conceded that the selection of the correct course was

somewhat influential to the qualification they chose to enrol for. This analysis suggests that those who chose and enrolled for the wrong course are likely to be frustrated and decide to change their field of study or even drop out before completing the TVET College education.

Theme 4 (Statement 5): *Insufficient effective student orientation and induction*

Insufficient effective student orientation and induction was rated by 29.4% of respondents as somewhat influential, 21.3% rated this statement as not at all influential to slightly influential whereas 49.4% ranked the same item as very influential to strongly influential. The research findings confirm the provision of student orientation and induction, where the TVET Colleges play an important role in preparing the new students in their educational environment. Student orientation refers to activities that are time constrained and typically precede the commencement of learning and teaching. The varied responses to the insufficient effective student orientation and induction suggest that student orientation offered at different TVET Colleges impacts students differently.

Theme 4 (Statements 6, 7, 8, 9 and 10): *Integrated teaching and learning approach*

It was decided to combine statements 6, 7, 8, 9 and 10 to become an integrated teaching and learning approach. Responses to this statement varied greatly from not at all influential to strongly influential. This suggests that respondents were widely divided with regard to how regular feedback on students' assessments influences students' persistence. While most respondents (53.8%) believe that this statement is very influential to strongly influential, 24.8% of respondents believe that this item is somehow influential whilst 21.4% ranked this statement as not influential to slightly influential.

The analysis shows an even distribution that could be the reflection of various teaching and learning approaches used in different faculties which has the potential of impacting student retention and success. The majority of students (53.8%) definitely consider the combination of different teaching and learning approaches as influential to academic persistence within the same institution.

Theme 4 (Statement 11): *Assistance with language policy factor, i.e. good command of medium instruction for teaching and learning*

Varied responses were provided with the majority of respondents, namely 51.8%, rating the assistance with language, i.e. good command of the medium of instruction for teaching and learning, as very influential to strongly influential, with 24.3% considering the same item as not at all influential to slightly influential, and 23.9% somewhat influential. These various responses may suggest that the medium of instruction which is mainly English varies from one TVET College to the other. It is

evident that the majority of students (51.8%) considered good command of the medium instruction for teaching and learning as one of the factors that can increase student performance which has a positive impact on student retention and success.

Theme 4 (Statement 12): *Other family responsibilities after school*

A total of 46.7% of respondents rated other family responsibilities after school as very influential to strongly influential while 27.7% ranked this item as somewhat influential. The same statement was considered by 25.6% of respondents as not influential to slightly influential. Students' commitment is part of the external factors such as having other responsibilities off-campus and having outside family commitments that negatively influence the qualifications attainment. The research results indicate that most students (46.7%) are also involved in other family responsibilities after school other than their educational work.

Theme 4 (Statement 13): *Inadequate conducive study facilities and living space*

31.0% of respondents considered inadequate conducive study facilities and living space as somehow influential, with 48.9% rating the same statement as very influential to strongly influential. The statistics further indicate that 20.1% of respondents viewed this item as not at all influential to slightly influential. The analysis indicates that the study facilities and living space may influence a large number of students, namely 49.9%, to either remain at the College or leave.

Theme 4 (Statement 14 and 15): *Effective student support services*

Adequate student support services facilities and effective career guidance, academic support and advice services were combined to form effective student support services. It is evident that the majority of respondents (57.4%) rated effective career guidance, academic support and advice services as very influential to strongly influential. A total of 23.7% of respondents considered this statement as somewhat influential while 18.9% ranked it as not at all influential to slightly influential. The research findings confirm that the provision of effective student support services, where TVET Colleges play an important role in student progress, influenced academic performance, persistence, student retention and success.

Theme 4 (Statement 16): *Inadequate supplementary learning activities (additional lessons, peer tutoring)*

It is undisputed that the majority of respondents, namely 50.9%, cited that inadequate supplementary learning activities such as additional lessons and peer tutoring are very influential to strongly

influential for students to either stay or withdraw from the TVET College. These statistics further indicate that 23.7% of respondents consider this statement somewhat influential while 25.4% rated it as not influential to slightly influential. These results could be that provisions of extra lessons in different formats assist some students in their academic performances. Peer cooperative learning strategies used for both underprepared and all students within a classroom setting is one academic intervention that positively impacts on student retention and success.

Theme 4 (Statement 17): *Poor quality of teaching and learning materials or lecture handouts*

The distribution of responses for poor quality of teaching and learning materials or lecture handouts was greatly varied. It was ranked by 23.9% of respondents as somehow influential, with 47% rating it very influential to strongly influential, while 29.1% considered it as not at all influential to slightly influential. Supplementary instruction which is a peer assisted learning strategy is important for assisting students to be successful in the courses or subjects which are traditionally regarded as difficulty. The traditional textbook teaching method negatively impacts students' performance. This analysis suggests that the majority of students (47%) value the teaching and learning materials or supplementary handouts being important for increasing student persistence resulting in improved student retention and success within TVET Colleges.

Theme 4 (Statement 18): *Lecturer absenteeism*

Although some respondents, namely 31%, considered that lecturer absenteeism is not at all influential to slightly influential for students either to stay or withdraw from the TVET College, a total of 24.3% rated the same statement as somehow influential, and 44.7% ranked this item as very influential to strongly influential. This analysis demonstrates that lecturer absenteeism from the normal teaching and learning session negatively impacts student retention and success.

Theme 4 (Statement 19): *Inadequate student motivation*

The majority respondents, namely 50.2%, considered inadequate student motivation as very influential to strongly influential for students to either stay or withdraw from the TVET College. The statistics further revealed that 25.0% of respondents rated the statement somewhat influential, with 24.8% ranking the same statement as not at all influential to slightly influential. Student motivation is one of the traditional predictors of academic performance and retention that influences timely qualification attainment. The majority of students (50.2%) considered student motivation as a very influential factor in determining student retention and success with their studies.

Theme 4 (Statement 20): *Poor class attendance by students*

A total of 49.9% of respondents viewed poor class attendance by students as very influential to strongly influential whereas 21.7% rated this statement as somewhat influential. The analysis further indicates that 28.4% of respondents considered this item as not at all influential to slightly influential. It is manifested that at least 49.8%, considered poor class attendance as one of the factors that can lead to student withdrawal.

Theme 4 (Statement 21): *Lecturers coming late or leaving classes before the end of teaching sessions*

The distribution of responses for lecturers coming late or leaving classes before the end of teaching sessions was greatly varied, with 50.3% rating this statement as very influential to strongly influential, 29.8% ranking this item as not at all influential to slightly influential, and 19.9% considering the same item as somewhat influential. The above research findings suggest that lecturers who do not utilize the full teaching and learning session negatively influence student retention and success. It is definite that the majority of students, namely 50.3%, considered coming late to class or leaving before the end of teaching sessions as very influential to their academic progress which encourage them to drop out.

The next section focuses on discussing the reliability and validity of the questionnaire as a measuring instrument.

5.3 THE RELIABILITY OF QUESTIONNAIRE CONSTRUCTS

With this study on student retention and success, reliability related to measurement of the consistency of data collected from the sources of information provided by the TVET College, the perceptions on institutional image and reputation, and predictors of student retention and success were based on a five-point Likert scale (Tables 5.3-5.6).

The Cronbach alpha is the most commonly used indicator of internal consistency providing reliability estimates for the consistency of item responses from a single assessment (Cronbach, 1951:298; Hair, Black, Babin, Anderson, & Tatham, 2006). By calculating the Cronbach's alpha value of the factors influencing student retention and success, the researcher could determine the internal consistency reliability (Cronbach, 1951:298). The generally accepted social science cut-off is that the Cronbach alpha is 0.70 or higher, although some authors are as lenient as 0.60, especially in an exploratory study (Hair *et al.*, 2006; Streiner & Norman, 2008). The higher the Cronbach alpha score is, the more

reliable the scale, implying that the closer the Cronbach alpha is to one, the greater the internal consistency of the items in the scale (Gliem & Gliem, 2003:87). Whenever the Cronbach alpha is greater than 0.70, it signals that all the items in the scale fit into the same underlying construct.

The Cronbach alpha reliability coefficient for the sources of information provided by the TVET College, the perceptions on institutional image and reputation and predictors of student retention and success exceeded 0.9, thus satisfying the internal consistency reliability requirements, resulting in no items being deleted.

In order to verify that the data set is suitable for factor analysis, the researcher must check that the Kaiser-Meyer-Olkin Measure of sampling adequacy value is 0.6 or above and that the Bartlett's test of sphericity has a value significant of 0.05 or smaller (Pallant, 2011:192). The Kaiser-Meyer-Olkin Measure of sampling adequacy for the factors scale of the questionnaire was 0.936 indicating that the scale as a whole has an acceptable internal control consistency reliability and no items were deleted. The questionnaire for this study was developed using the two widely used international instruments, the ASQ and CIRP, which were then adapted to the South African context. The questionnaire was scrutinized by an expert panel to evaluate whether the scale items cover the domain factors related to student retention and success in a TVET College. Accordingly, the content validity of the questionnaire was confirmed.

Section 5.4 highlights the findings of the study relating to the research objectives.

5.4 RESEARCH FINDINGS RELATING TO RESEARCH OBJECTIVES USING DIFFERENT STATISTICAL TEST METHODS

The results of this study's primary research objectives outlined in section 1.6 (a) are discussed and tested using the data from the questionnaires. The research objectives were related to the following research questions:

- What is the influence of institutional image and reputation information sources on student recruitment, retention and success at the TVET College institutions?
- What are the main factors that influence student persistence and academic performance at the TVET College institutions?

- What are the main student support services factors that initially motivate or hinder student retention and success at the TVET College institutions?
- What are the main student support services factors that continuously motivate or hinder student retention and success at the TVET College institutions?
- What are other additional factors that contribute to increasing the effective management of student recruitment, retention and success at TVET Colleges?

5.4.1 Research objective 1

The need to increase access and to improve on how student retention and success at TVET Colleges can be effectively managed as explained in Chapter 2 demands that TVET Colleges continue offering relevant qualifications that are responsive to economic needs. It is essential that the TVET College environment knows which factors students consider important when choosing a particular TVET College.

This section is aimed at determining the extent to which institutional image and reputation information sources influence the management of student recruitment, retention and success at the TVET College institution (Part B of the questionnaire) as depicted in Table 5.7.

As standard deviation measures the spread of data about the mean, it implies that, if the points are close to the mean, the standard deviation is small or low (indicating consistency or agreement) and if the points are far from the mean, the standard deviation is high or large (indicating inconsistency or differences between respondents). The high standard deviations therefore suggest that there is a wider spread in the data, suggesting that there is low level agreement on such items. Table 5.7 indicates the ranking of the importance of institutional reputation and image of TVET Colleges based on the sources of information on image and reputation as relating to mean values as indicators of the importance of each source of information.

Table 5.7: Ranked institutional image and reputational information sources when choosing to enrol at a TVET College

Order of importance	Variable No	Variable description	Mean	Std. Deviation
1.	V20.14	Safety and security at this TVET College/campus	3.9	1.285

2.	V20.11	Quality of academic facilities (library, laboratories, computers, etc.)	3.69	1.306
3.	V20.5	TVET College website	3.62	1.214
4.	V20.4	School visiting college/campus during open days	3.59	1.259
5.	V20.13	Cleanliness/neatness of College/campus premises	3.55	1.372
6.	V20.6	TVET College publications (catalogs, brochures, etc.)	3.39	1.314
7.	V20.8	Electronic (website/internet) communication with the TVET College	3.39	1.326
8.	V20.18	This is the only TVET College that provides my academic needs	3.36	1.343
9.	V20.16	This TVET College is located where employment opportunities are easily accessible	3.25	1.36
10.	V20.17	Ease of getting home from this College	3.24	1.379
11.	V20.7	Visits by admission TVET College staff at my high school	3.18	1.399
12.	V20.15	Surroundings (neighbourhood, town or city)	3.18	1.275
13.	V20.12	On campus student residence/housing/hostels	3.11	1.462
14.	V20.10	On-campus interview with admission staff	2.95	1.188
15.	V20.9	Our school visits to this campus	2.87	1.37
16.	V20.2	Advertisement on radio stations	2.84	1.319
17.	V20.3	Advertisement on TV	2.84	1.373
18.	V20.1	Printed media (such as newspapers/ magazines)	2.61	1.217

From Table 5.7 it is evident that the information sources on institutional image and reputation of TVET Colleges differ in their importance. These differences are discussed below.

The top ten information sources on image and reputation of TVET Colleges, which respondents regarded as important when making their choice of TVET College for enrolment, were as follows: safety and security at the TVET College campus appeared to be an extremely important information source for students when choosing to enrol at a TVET College, as this variable had a very high mean value (3.9) and low standard deviation (1.289), which suggest that most respondents agreed on the importance of this statement.

- respondents attached extreme importance to the quality of academic facilities (library, laboratories, computers, etc.) (mean value = 3.69), TVET College website (mean value =

3.62), school visiting college or campus during open days (mean value = 3.59), cleanliness or neatness of College or campus premises (mean value = 3.55), TVET College publications (catalogues, brochures, etc.) (mean value = 3.39), electronic (website or internet) communication with the TVET College (mean value = 3.39), this is the only TVET College providing specific the specific programme to meet the student’s academic needs (mean value = 3.36), TVET College located where employment opportunities are easily accessible (mean value = 3.25), and ease of getting home from the specific TVET College (mean value = 3.24).

These results serve as an answer to the research question on what is the influence of institutional image and reputation information sources on student recruitment, retention and success at the TVET College institutions.

5.4.2 Research objective 2

It is imperative to determine the main factors that influence student persistence and academic performance at a TVET College institution (part C of the questionnaire). These factors that improve student persistence and academic performance are depicted in Table 5.8.

Table 5.8: Ranking of factors influencing student persistence and academic performance at a TVET College institution

Order of importance	Variable No	Variable description	Mean	Std. Deviation
1.	V21.1	Programme or course I intended to study at TVET College	4.01	1.324
2.	V21.6	Available financial assistance (bursary or loans or scholarships) opportunities	3.96	1.281
3.	V21.9	Potential well-paying jobs after completing this course or programme	3.86	1.323
4.	V21.8	Advice from family members or guardians or friends who studied at a TVET College	3.82	1.262
5.	V21.12	Qualification or course that matches my expectations	3.82	1.212
6.	V21.10	Available employment opportunities to qualifying students	3.8	1.255
7.	V21.11	Government encouraged students to study for this qualification or course	3.76	1.296

8.	V21.16	Better option for those whose admissions are rejected by the universities	3.73	1.314
9.	V21.3	Emphasis on the importance of technical and vocational education	3.68	1.242
10.	V21.2	Overall employer perception of the TVET College's quality of education	3.66	1.268
11.	V21.7	Motivation from my previous high school teacher(s)	3.61	1.344
12.	V21.4	Easy access to faculty	3.55	1.338
13.	V21.15	Alternative entry requirements (various selection and admission requirements)	3.4	1.315
14.	V21.5	Affordable cost to my family	3.36	1.505
15.	V21.14	Social life status/extracurricular activities (debate, drama, music, sports. Etc.)	3.35	1.39
16.	V21.13	Pre-college and college entrance preparatory programmes	3.3	1.279

Table 5.8 indicates the main factors that influence student persistence and academic performance which may potential influence the management of student recruitment, retention and success in the TVET College.

- the course students intended to study at a TVET College was a very important factor considered when choosing to enrol and remain at a TVET College with the highest mean of 4.01.
- respondents attached significant importance to the availability of financial assistance such as bursaries or loans or scholarship opportunities (mean value = 3.96), followed by the potential of well-paying jobs after completing the specific course (mean value = 3.86), and then the advice from family members, guardians or friends who studied at a TVET College (mean value = 3.82).
- even though the rate of unemployment in South Africa is high, respondents indicated that available employment opportunities to qualifying students is considered very important (mean value = 3.8). This might be that the respondents noticed that students who successfully completed certain qualifications got employed.
- respondents ranked the statement of the government encouraging students to study for the qualification (mean value = 3.80) and a better option for those whose admissions are rejected by the universities (mean value = 3.73) as very important factors to consider when choosing a course and a TVET College. This ranking possibly confirms that the majority of students

who enrolled at TVET Colleges represent those who have been referred by government programmes, encouraging the youth and unemployed to access technical and vocational education and training sponsored by government financial assistance.

- the emphasis on the importance of technical and vocational education (mean value = 3.68) and the overall employer perception of the TVET College’s quality of education (mean value = 3.66) are considered important in influencing students when choosing a specific course offered at a particular TVET College with the possibility of completing their studies at the same institution.

These findings respond to the research question on what are the main factors that influence student persistence and academic performance at the TVET College institution.

5.4.3 Research objective 3

A meaningful way of assessing the effective management of student retention and success is by investigating the main student support services factors that initially either motivate or hinder student retention and success at the TVET College institutions (section 1.6 linked to **part D1** of the questionnaire – **Appendix J**).

Table 5.9 indicates the ranking of student support services initially either motivate or hinder student retention and success at a TVET College institution.

Table 5.9: Ranking of student support services factors initially either motivate/hinder student retention and success at a TVET College institution

Order of importance	Variable No	Variable description	Mean	Std Deviation
1.	V22.2	Course/qualification that prepares me for employment opportunities	4.33	0.97
2.	V22.3	Course/ qualification content that matches students ‘expectations	4.13	1.033
3.	V22.1	Induction or orientation programme that prepares students for the College environment	3.95	1.259
4.	V22.4	Relevant career guidance offered immediately after registration	3.88	1.319
5.	V22.15	Adequate knowledge of subject matter	3.86	1.145
6.	V22.6	Conducive campus climate for diverse students (i.e. Student from different backgrounds)	3.84	1.113

7.	V22.16	Inviting potential employers to speak to students at the campus	3.73	1.385
8.	V22.5	Effective academic support activities	3.7	1.237
9.	V22.11	Schools and TVET Colleges jointly prepare students for the College education	3.68	1.224
10.	V22.12	College/campus visit programme as a factor in students' enrolment decision	3.68	1.225
11.	V22.10	Available pre-college and college entrance requirements to secondary school students	3.66	1.257
12.	V22.8	Flexible mode of study (afternoon, evening, Saturday classes)	3.54	1.446
13.	V22.13	Provision of ongoing college support	3.48	1.285
14.	V22.9	Links or functional partnerships with the industry or business	3.45	1.301
15.	V22.14	Provision of a bridging programme for applicants with minimum entry requirements	3.32	1.354
16.	V22.7	Friendly administrative and academic staff	3.14	1.138

Table 5.9 reveals that student support services factors that initially either motivate or hinder student retention and success at a TVET College institution differ in their importance. Respondents ranked the following student support factors (with mean > 3.5) important to very important engendering student retention and success at a TVET College institution: qualification preparing for employment opportunities (V22.2), course content matching students' expectations (V22.3), induction programme preparing students for the College environment (V22.1), relevant career guidance offered immediately after registration (V22.4), adequate knowledge of subject matter (V22.15), conducive campus climate for diverse student population (i.e. students from different background) (V22.6), inviting potential employers to speak to students at the campus (V22.16), effective academic support activities (V22.5), schools and TVET Colleges jointly preparing students for College education (V11), and college and campus visiting programmes (V12). Some of the differences are discussed below.

- the qualification that prepares students for employment opportunities was considered very important for student retention and success with the highest mean (4.33). The lowest standard deviation of 0.93 illustrates that the majority of respondents are in agreement that the specific qualification is a very important factor that augments employment opportunities.
- Although a student induction programme may be considered relatively new in the TVET College environment, respondents have indicated that it is a very important aspect that prepares students for the College environment (mean value = 3.95).

- respondents indicated the course content that matches students' expectations (mean value = 4.13), relevant career guidance offered immediately after registration (mean value = 3.88), adequate knowledge of subject matter (mean value = 3.86), and a campus climate conducive to a diverse student population (i.e. students from different backgrounds) (3.84) as very important factors of student support increasing student success.
- inviting potential employers to speak to students at the campus (mean value = 3.73), and effective academic support activities (mean value = 3.7) are ranked as very important factors of student support to increase student success. The high ranking of these factors indicates that some of the TVET Colleges currently invite employers as part of providing relevant career guidance, which should enhance retention and eventual success.
- respondents indicated functional partnerships with industry and businesses (mean value = 3.48), provision of a bridging programme for applicants with minimum entry requirements (mean value = 3.32), and friendly administrative and academic staff (mean value = 3.14) as the lowest ranking factors of student support engendering student retention and success at a TVET College.

These findings answer the research question relating to what are the main student support services factors that initially motivate or hinder student retention and success at the TVET College institutions.

5.4.4 Research objective 4

For the TVET College to know and understand the effective management of student retention and success status at their institutions it is imperative for the institution to determine main student support services factors that continuously either motivate or hinder student retention and success at the TVET College institutions (**part D2** of the questionnaire – **Appendix J**).

Table 5.10 indicates the ranking of the main student support services factors that continuously either motivate or hinder student retention and success at TVET College institutions.

Table 5.10: Ranking of the student support services factors that continuously either motivate/hinder student retention and success at TVET College institutions.

Order of importance	Variable No	Variable description	Mean	Std. Deviation
1.	V23.1	My academic performance encourages me to focus on studying hard	4.44	0.873

2.	V23.6	Quality of teaching and learning that integrates study skills	3.75	1.185
3.	V23.8	Constructive feedback on students' academic progress	3.74	1.145
4.	V23.15	Effective career guidance, academic support and advice services	3.67	1.253
5.	V23.2	Social involvement motivates me to continue studying at this college	3.63	1.261
6.	V23.7	Regular feedback on students' assessments	3.63	1.28
7.	V23.14	Adequate student support services facilities	3.58	1.212
8.	V23.9	Outdated facilitation/teaching methodology (inadequate/minimum student participation)	3.47	1.229
9.	V23.5	Insufficient effective student orientation and induction	3.41	1.22
10.	V23.11	Assistance with language policy factor (good command of the medium instruction for teaching and learning)	3.41	1.331
11.	V23.13	Inadequate conducive study facilities and living space	3.39	1.211
12.	V23.16	Inadequate supplementary learning activities (additional lessons, peer tutoring)	3.38	1.343
13.	V23.3	Expectations differed from the recruitment materials	3.34	1.151
14.	V23.12	Other family responsibilities after school	3.33	1.332
15.	V23.19	Inadequate student motivation	3.33	1.341
16.	V23.20	Poor class attendance by students	3.31	1.401
17.	V23.17	Poor quality of teaching and learning materials/lecture handouts	3.27	1.367
18.	V23.21	Lecturers coming late or leaving classes before the end of teaching sessions	3.26	1.477
19.	V23.18	Lecturer absenteeism	3.19	1.423
20.	V23.4	Learning experiences, e.g. Wrong or second choice of course selection	3.12	0.964
21.	V23.10	Monotonous and boring teaching approaches	2.87	1.395

It is evident from Table 5.10 that all the student support services factors that continuously either motivate or hinder student retention and success at the TVET College institutions are differently influential to the respondents. Comments on Table 5.10 relate to the following:

- The main student support services factors that continuously either motivate or hinder student retention and success at the TVET College institutions include the academic performance that encourages students to focus on studying (V23.1), the quality of teaching and learning that integrates study skills (V23.6), constructive feedback on students' academic progress (V23.8), effective career guidance, academic support and advice services (V23.15), social involvement motivating continued studying (V23.2), and regular feedback on student assessments (V23.7).
- Factors inhibiting student perseverance and success related to outdated facilitation or teaching methodology (inadequate/minimum student participation) (V23.9), insufficient student orientation and induction (V23.5), and an inadequacy of conducive study facilities and living space (V23.13).
- Academic performance encouraging focused studying was rated the most influential factor, as 63.7% of respondents indicated academic performance as strongly influential to students' academic persistence and eventual achievement with the highest mean of 4.44. This statement has a low standard deviation (0.87) indicating that most respondents convincingly agreed that their previous academic performance influence their future persistence and success.
- 30% of the respondents rated effective career guidance, quality of teaching and learning that integrate study skills (mean value = 3.75), constructive feedback on students' academic progress (mean value = 3.74), academic support and advice services (mean value = 3.67), social involvement motivating continued studying at the specific college, and regular feedback on students' assessments (mean value = 3.63) as the second most important factors strongly influential to students' academic persistence and achievement.
- Although learning experiences such as wrong or second choice of course selection were indicated as somehow influential (mean value = 3.12), these experiences were ranked twentieth on the list of influential factors. Student expectations differing from recruitment materials at 33.2%, and inadequate study facilities and living space (31.0%) hindered students to perseverance with their studies at the TVET College.
- The least influential factors were lecturer absenteeism (mean value = 3.19), and monotonous and boring teaching approaches (mean value = 2.87) implying that TVET College students are able to independently study regardless of lecturer input.

These research findings answer the research question on what are the main student support services factors that continuously motivate or hinder student retention and success at the TVET College institutions.

5.4.5 Research objective 5

The respondents did not respond to the question on what are other additional factors contributing to the increase in the management of student recruitment, retention and success at TVET College institutions as they completed the last part of the questionnaire (**part D2** of the questionnaire – **Appendix J**).

The next section focuses on the presentation and analysis of results using different statistical test methods.

5.5 PRESENTATION OF RESULTS USING DIFFERENT STATISTICAL TEST METHODS

In sections 5.2 and 5.3 the researcher analysed and interpreted the results from the frequency tables. The null hypotheses of each question in parts **B**, **C** and **D** of the questionnaire were tested separately. The circumstance under which the null hypothesis could or could not be rejected was based on the level of significance for each statement from the questionnaire. For the purpose of testing the hypothesis in this study, the significant level of all hypotheses were set at a 5 percent significance level ($p = 0.05$). Then an appropriate statistical test was chosen wherein the statistical test values were calculated, test results interpreted and then decided whether the null hypotheses are rejected or not rejected.

Due to the conflicting results between the importance of the reputation and image of TVET Colleges' information sources influencing students to enrol at a particular TVET College, the factors considered when choosing to enrol at a TVET College; academic support considered to increase students' performances at a TVET College; and the main factors that do not influence student to either persist or withdraw from the TVET College investigated from various respondents (5.4.1-5.4.4), it was decided to test various hypotheses using the Chi-Square tests (5.5.1- 5.5.2), factor analysis (5.5.3), and the analysis of variance (ANOVA) (5.5.4).

5.5.1 Presentation of the Chi-Square tests

Christmann (2012:183) defined Chi-Square as a test statistic used to determine whether proportions in two or more categories differ significantly. Agarwal (2013:263) and Boslaugh (2013:127) draw a distinction between two types of Chi-Square tests with the first test being the Chi-Square of independence, which is used in this study to test the null hypothesis that variables are independent of each other, and that there is no relationship between those variables (Boslaugh, 2013:127).

Secondly, the Chi-Square test was to test the hypothesis of the variance of a normal population, goodness of fit of the theoretical distribution to observe frequency distribution, and also to test in genetics where one tested whether the observed frequencies in different crosses agreed with the expected frequencies or not (Boslaugh, 2013:127).

Significance testing reports on assessment determines whether the observed scores reflect a pattern or a chance while the effect size can be used to explain the variance between two or more variables or the difference amongst means for groups. The probability (p-values) with the significant levels that are more than .05 suggests that there are no statistically significant differences across variables; therefore, there is no need to comment about their differences. In a case where the p-value is less than .05 it means that there are significant differences across those variables worth discuss. In this study only the p-values with the significant levels that are less than .05 are highlighted and their differences explained.

The next section of the data analysis illustrates how the Chi-Square (Mann-Whitney U Test) tests of independent variables and dependent variables were dealt with separately in order to explain whether or not such variables influenced students to enrol at a particular TVET College.

The data analysis also focuses on factors considered important when deciding to enrol at a TVET College academic support aspects were considered increasing students' performances at a TVET College, and the main factors that influence student to either persist or withdraw from their studies.

5.1.1.1 Presentation of the Chi-Square from the Mann-Whitney tests

The Mann-Whitney tests as non-parametric statistical techniques are used when testing for the differences between two independent groups of variables on a continuous measure (Mann & Whitney, 1947; Milenovic, Z.M, 2011:73; Nachar, N, 2008, 13; Pallant, 2011:227). In this study, the researcher tested independent categories or grouping variables, namely gender (V1); mode of

registration (V7); course or programme or qualification student enrolled for (V9); place where student stays while studying at a TVET College (V14); and the permanent place where student was born (V15) against each statement in parts **B**, **C** and **D** of the questionnaire.

Tables 5.11-5.21 present data on the calculated z-values and the approximately calculated statistical significance p-value differences between the crossed variables wherein only the statistically significant with scores that are less than 0.05 are highlighted and their differences discussed. This presentation focuses only on the p-values with the significant levels that are less than .05 which suggests that there are statistically significant differences as explained next.

- The influence of gender on certain variables

As suggested in sections 2.9.2 and 5.3, gender could influence the importance of the institutional image and reputation of the TVET College information sources, factors improving student academic performance, factors increasing student recruitment, retention and success at the TVET College institutions, thus the hypothesis was formulated and its results summarised. The results of the influence of gender on important information sources (V1) across the student groups are captured and their differences explained below.

Table 5.11: The influence of gender on certain variables

No	Alternative hypotheses	Statement number	Statement	p-value > or < 0.05	Significant or Insignificant
H ₁ :	Male and female students differ with regard to the importance they attach to the information sources on institutional reputation and image of the TVET College, the factors they consider engendering initial	Statement (V21.3)	<i>Emphasis on the importance of technical and vocational education</i>	0.04	Significant
		Statement (V22.16)	<i>Inviting potential employers to speak to students at the campus</i>	0.00	Significant
		Statement (V23.5)	<i>Insufficient effective student</i>	0.05	Significant

retention and success, and the factors they perceive prompting continuous retention and success at a TVET College.		<i>orientation and induction</i>		
	Statement (V23.18)	<i>Lecturer absenteeism</i>	0.01	Significant
	Statement (V23.19)	<i>Inadequate student motivation</i>	0.01	Significant

- The mode of registration on certain variables

As suggested in sections 2.9.2 and 5.3, the importance of mode of registration could influence the importance of institutional image and reputation of the TVET College information sources, factors improving student academic performance, and factors increasing student recruitment, retention and success in the TVET College environment.

Hypothesis 2 was formulated, and the results across the respondents' views on the influence of mode of registration on students' choice of College, and persistence or withdrawal summarised on Table 5.12.

Table 5.12: The mode of registration on certain variables

No	Alternative hypotheses	Statement number	Statement	p-value > or < 0.05	Significant or Insignificant
H ₂ :	Students' mode of registration influences the importance they attach to the information sources on institutional reputation and image of the TVET College, the factors they consider that promote initial retention and success, and the factors they perceive prompting continuous retention and	Statement (V20.2)	<i>Advertisement on radio stations</i>	0.00	Significant
		Statement (V21.1):	<i>Programme or course I intended to study at TVET College</i>	0.02	Significant
		Statement (V21.7):	<i>Motivation from my previous high school teacher(s)</i>	0.02	Significant
		Statement (V23.5):	<i>Insufficient effective student</i>	0.05	Significant

success at a TVET College.		<i>orientation and induction</i>		
----------------------------	--	----------------------------------	--	--

- Course student enrolled for on certain variables

The study on courses students enrolled for (sections 2.5.2, 2.6.1, and 5.3) could influence the importance of the institutional reputation and image of the TVET College information sources; improve student academic performance; and increase student recruitment, retention and success in the TVET College environment.

Hypothesis 3 was formulated, and its results across student groups on the results on the influence of course or programme or qualification student enrolled for on student choice of College, and persistence or withdrawal (V9) are listed and their significant differences explained on Table 5.13.

Table 5.13: Course student enrolled for on certain variables

No	Alternative hypotheses	Statement number	Statement	p-value > or < 0.05	Significant or Insignificant
H ₃ :	Students' enrolment for the different courses and qualifications influence the importance they attach to the information sources on institutional reputation and the image of the	Statement (V20.2):	<i>Advertisement on radio stations</i>	0.00	Significant
		Statement (V20.3):	<i>Advertisement on TV</i>	0.00	Significant
		Statement (V20.6):	<i>TVET College publications (catalogues, brochures, etc.)</i>	0.03	Significant
		Statement (V20.8):	<i>Electronic (website or internet) communication with the TVET College</i>	0.01	Significant
		Statement (V20.11):	<i>Quality of academic facilities (library, laboratories, computers, etc.)</i>	0.02	Significant
		Statement (V20.12):	<i>On campus student residence or housing or hostels</i>	0.04	Significant
		Statement (V20.13):	<i>Cleanliness or neatness of College or campus premises</i>	0.00	Significant

TVET College, the factors they consider engendering initial retention and success, and the factors they perceive prompting continuous retention and success at a TVET College.	Statement (V20.14):	<i>Safety and security at this TVET College or campus</i>	0.01	Significant
	Statement (V20.15):	<i>Surroundings (neighbourhood, town or city)</i>	0.05	Significant
	Statement (V20.16):	<i>This TVET College is located where employment opportunities are easily accessible</i>	0.03	Significant
	Statement (V20.17):	<i>Ease of getting home from this College</i>	0.01	Significant
	Statement (V21.1):	<i>Programme or course I intended to study at TVET College</i>	0.00	Significant
	Statement (V21.2):	<i>Overall employer perception of the TVET College's quality of education</i>	0.00	Significant
	Statement (V21.3):	<i>Emphasis on the importance of technical and vocational education</i>	0.00	Significant
	Statement (V21.4):	<i>Easy access to faculty</i>	0.00	Significant
	Statement (V21.5):	<i>Affordable cost to my family</i>	0.00	Significant
	Statement (V21.9):	<i>Potential well-paying jobs after completing this course or programme</i>	0.00	Significant
	Statement (V21.10):	<i>Available employment opportunities to qualifying students</i>	0.01	Significant
	Statement (V21.11):	<i>Government encouraged students to study for this qualification or course</i>	0.00	Significant
Statement (V21.12):	<i>Qualification or course that matches my expectations</i>	0.00	Significant	

	Statement (V21.13):	<i>Pre-college and college entrance preparatory programmes</i>	0.00	Significant
	Statement (V21.15):	<i>Alternative entry requirements (various selection and admission requirements)</i>	0.00	Significant
	Statement (V21.16):	<i>Better option for those whose admissions are rejected by the universities</i>	0.04	Significant
	Statement (V22.1):	<i>Induction programme that prepares students for the College environment</i>	0.00	Significant
	Statement (V22.8):	<i>Flexible mode of study (afternoon, evening, Saturday classes)</i>	0.00	Significant
	Statement (V22.9):	<i>Links or functional partnerships with the industry or business</i>	0.04	Significant
	Statement (V22.10):	<i>Available pre-college and college entrance requirements to secondary school students</i>	0.05	Significant
	Statement (V22.14):	<i>Provision of a bridging programme for applicants with minimum entry requirements</i>	0.00	Significant
	Statement (V23.6):	<i>Quality of teaching and learning that integrates study skills</i>	0.01	Significant
	Statement (V23.7):	<i>Regular feedback on students' assessments</i>	0.00	Significant
	Statement (V23.9):	<i>Outdated facilitation or teaching methodology</i>	0.01	Significant

			<i>(inadequate of/minimum student participation)</i>		
		Statement (V23.10):	<i>Monotonous and boring teaching approaches</i>	0.00	Significant
		Statement (V23.11):	<i>Assistance with language policy factor (good command of the medium instruction for teaching and learning)</i>	0.00	Significant
		Statement (V23.13):	<i>Inadequate or uncondusive study facilities and living space</i>	0.00	Significant
		Statement (V23.17):	<i>Poor quality of teaching and learning materials or lecture handouts</i>	0.03	Significant
		Statement (V23.18):	<i>Lecturer absenteeism</i>	0.00	Significant
		Statement (V23.21):	<i>Lecturers coming late or leaving classes before the end of teaching sessions</i>	0.01	Significant

- The influence of the place where students stay while studying at this TVET College on various variables

Previous studies on the place where students stay during their studies (section 2.5.1, 3.4.1.3, and section 5.3) could influence the importance of the institutional image and reputation of the TVET College information sources, factors improving student academic performance, factors increasing student recruitment, retention and success in the TVET College environment.

Hypothesis 4 was formulated, and the results across students staying at different places while studying at a TVET College summarised as listed on Table 5.14.

Table 5.14: The influence of the place where students stay while studying at this TVET College on various variables

No	Alternative hypotheses	Statement number	Statement	p-value > or < 0.05	Significant or Insignificant
H ₄ :	Students' accommodation while studying at the TVET College influences the importance of information sources attached to institutional reputation and image of the TVET College, the factors they consider engendering initial retention and success, and the factors they perceive prompting continuous retention and success at a TVET College.	Statement (V21.9):	<i>Potential well-paying jobs after completing this course or programme</i>	0.02	Significant
		Statement (V23.1):	<i>My academic performance encourage me to focus on studying hard</i>	0.02	Significant
		Statement (V23.4):	<i>Learning experiences, e.g. wrong or second choice of course selection</i>	0.03	Significant
		Statement (V23.13):	<i>Inadequate conducive study facilities and living space</i>	0.03	Significant

- How the place where students were born and grew up as a permanent resident influence various other variables

As suggested in sections 2.9.2 and 5.3, the permanent resident could influence the importance of the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing student recruitment, retention and success in the TVET College environment, thus the hypothesis was formulated, and its statistically significant difference across places where students were born and grew up as their permanent resident results summarised as indicated on Table 5.15.

Table 5.15: How the place where students were born and grew up as a permanent resident influence various other variables

No	Alternative hypotheses	Statement number	Statement	p-value > or < 0.05	Significant or Insignificant
H ₅ :	Student family background and demography influence the importance students attach to the information sources on institutional reputation and image of the TVET College, the factors they consider engendering initial retention and success, and the factors they perceive prompting continuous retention and success at a TVET College.	Statement (V20.6):	<i>TVET College publications (catalogues, brochures, etc.)</i>	0.02	Significant
		Statement (V20.11):	<i>Quality of academic facilities (library, laboratories, computers, etc.)</i>	0.01	Significant
		Statement (V20.16):	<i>This TVET College is located where employment opportunities are easily accessible</i>	0.04	Significant
		Statement (V20.17):	<i>Ease of getting home from this College</i>	0.05	Significant
		Statement (V22.6):	<i>Conducive campus climate for diverse students (i.e. students from different backgrounds)</i>	0.01	Significant
		Statement (V22.9):	<i>Links or functional partnerships with the industry or business</i>	0.05	Significant
		Statement (V23.20):	<i>Poor class attendance by students</i>	0.01	Significant
		Statement (V23.21):	<i>Lecturers coming late or leaving classes</i>	0.02	Significant

			<i>before the end of teaching sessions</i>		
--	--	--	--	--	--

The next section of data analysis uses the Chi-Square tests to illustrate how the Kruskal-Wallis test's independent variables and dependent variables were dealt with separately in order to explain whether or not such variables influenced students to enrol at a particular TVET College. The Kruskal-Wallis test focuses on factors considered when choosing to enrol at a TVET College academic support aspects were considered increasing students' performances at a TVET College; and main factors influencing student to either persist or withdraw from their studies.

5.5.1.2 Presentation of the Chi-Square test from the Kruskal-Wallis test

There were contradicting outcomes with regard to the importance of the reputation and image of the Technical and Vocational Education and Training Colleges' information sources that influence students to enrol at a particular TVET College; the factors considered when choosing to enrol at a TVET College; academic support considered to increase students' performances at a TVET College; and the main factors influencing students either to persist or withdraw from the TVET College investigated from various respondents (sections 5.4.1-5.4.4).

The hypothesis for each statement from the questionnaire with regard to the reputation and image of the TVET College information sources that influence students to enrol at a particular TVET College (**Part B**); factors considered when choosing to enrol at a TVET College (**Part C**); academic support considered for increasing students' performances at a TVET College (**Part D1**); and main factors influencing student to either persist or withdraw from the TVET College (**Part D2** of the questionnaire – **Appendix J**) had to be formulated.

The Kruskal-Wallis test - also referred to as the Kruskal-Wallis H test - is the non-parametric alternative to a one-way between-groups analysis of variance. It allows one to compare the scores on some continuous variable for three or more groups. It is similar in nature to the Mann-Whitney U test presented in section 5.2 in this chapter, but it allows one to compare more than two groups.

The scores are converted to ranks and the mean rank for each group is compared. This is a 'between groups' analysis, so different people must be in each of the different groups (Pallant, 2011:232). As

explained in section 5.4, this study used the Chi-Square to assess the significance of the Kruskal-Wallis tests.

The Chi-Square was used in this study to test the independence between various variables, namely the age in years (V2); the Grade 12 or high school average percentage mark (V5); the entry average percentage mark required for this course or qualification (V6); the NCV or N-Course or qualification (V11); the NCV/N-Course level (V12); the distance in kilometers the TVET/Campus is from student's permanent home (V13); the parents' (guardian's) level of education (V16 and V17); the parents' (guardian's) source of income (V18 and V19) regarding how students responded to various statements from parts B, C and D of the questionnaire is explained next. The following sections present the results of the tests in table form.

- The influence of various variables on age in years

Previous studies on age in years could influence the importance of the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing student recruitment, retention and success at the TVET College environment, and thus the following hypothesis were formulated, and its results summarised. The statistically significant scores across students of different age groups are highlighted and their differences discussed on Table 5.16.

Table 5.16: The influence of various variables on age in years

No	Alternative hypotheses	Statement number	Statement	p-value > or < 0.05	Significant or Insignificant
H ₆ :	Student age influences the importance that students attach to the information sources on	Statement (V20.7):	visits by admission TVET College staff at my high school	0.01	Significant
		Statement (V20.11):	Quality of academic facilities (library, laboratories, computers, etc.)	0.03	Significant
		Statement (V20.13):	<i>Cleanliness or neatness of College or campus premises</i>	0.00	Significant

institutional reputation and image of the TVET College, the factors they consider engendering initial retention and success, and the factors they perceive prompting continuous retention and success at a TVET College.	Statement (V20.14):	<i>Safety and security at this TVET College or campus</i>	0.00	Significant
	Statement (V20.15):	<i>Surroundings (neighbourhood, town or city)</i>	0.01	Significant
	Statement (V21.1):	<i>Programme or course I intended to study at TVET College</i>	0.01	Significant
	Statement (V21.2):	<i>Overall employer perception of the TVET College's quality of education</i>	0.02	Significant
	Statement (V21.5):	<i>Affordable cost to my family</i>	0.02	Significant
	Statement (V21.7):	<i>Motivation from my previous high school teacher(s)</i>	0.03	Significant
	Statement (V21.9):	<i>Potential well-paying jobs after completing this course or programme</i>	0.02	Significant
	Statement (V21.10):	<i>Available employment opportunities to qualifying students</i>	0.03	Significant
	Statement (V21.12):	<i>Course that matches my expectations</i>	0.05	Significant
	Statement (V21.13):	<i>Pre-college and college entrance preparatory programmes</i>	0.00	Significant
	Statement (V21.16):	<i>Better option for those whose admissions are rejected by the universities</i>	0.01	Significant
	Statement (V21.1):	<i>Programme or course I intended to study at TVET College</i>	0.01	Significant
	Statement (V21.2):	<i>Overall employer perception of the TVET College's quality of education</i>	0.02	Significant

	Statement (V21.5):	affordable cost to my family	0.02	Significant
	Statement (V21.7):	<i>Motivation from my previous high school teacher(s)</i>	0.03	Significant
	Statement (V21.9):	<i>Potential well-paying jobs after completing this course or programme</i>	0.02	Significant
	Statement (V21.10):	<i>Available employment opportunities to qualifying students</i>	0.03	Significant
	Statement (V21.12):	<i>Course that matches my expectations</i>	0.05	Significant
	Statement (V21.13):	<i>Pre-college and college entrance preparatory programmes</i>	0.00	Significant
	Statement (V21.16):	<i>Better option for those whose admissions are rejected by the universities</i>	0.01	Significant
	Statement (V22.8):	<i>Flexible mode of study (afternoon, evening, Saturday classes)</i>	0.01	Significant
	Statement (V22.9):	<i>Links or functional partnerships with the industry or business</i>	0.04	Significant
	Statement (V22.12):	<i>College or campus visit programme as a factor in students' enrolment decision</i>	0.05	Significant
	Statement (V23.1):	<i>My academic performance encourage me to focus on studying hard</i>	0.03	Significant
	Statement (V23.18):	<i>Lecturer absenteeism</i>	0.00	Significant

Grade 12 or high school average percentage mark's influence on various variables

Several studies suggested that the high school average percentage mark (section 2.7.1.1, section 2.7.1.2, and section 5.3)

could influence the importance of the institutional image and reputation of the TVET College information sources, factors improving student academic performance, factors increasing student recruitment, and retention and success at the TVET College institutions.

Hypothesis 7 was thus formulated, and its results summarised. The statistically significant difference across students' different Grade 12 or high school average percentage marks, are discussed as follows:

Table 5.17: Grade 12 or high school average percentage mark's influence on various variables

No	Alternative hypotheses	Statement number	Statement	p-value > or < 0.05	Significant or Insignificant
H7:	A Grade 12 pass mark of 60% or more influences the importance students attach to the information sources on institutional reputation and image of the TVET College, the factors they consider engendering initial retention and success, and the factors they perceive prompting continuous retention and success at a TVET College.	Statement (V20.18):	<i>This is the only TVET College that provides for my academic needs</i>	0.01	Significant
		Statement (V21.8):	<i>Advice from family members, guardians or friends who studied at a TVET College</i>	0.03	Significant
		Statement (V22.4):	<i>Relevant career guidance offered immediately after registration</i>	0.03	Significant
		Statement (V22.16):	<i>Inviting potential employers to speak to students at the campus</i>	0.00	Significant
		Statement (V23.20):	<i>Poor class attendance by students</i>	0.02	Significant

- The NCV or N-Course's influence on various variables

As suggested in sections 2.9.2 and 5.3, the NCV or N-Course could influence the importance of the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing student recruitment, retention and success in the TVET College environment. Hypothesis 8 was thus formulated, and its results across groups of NCV or N-Courses summarised as listed below.

Table 5.18: The NCV or N-Course's influence on various variables

No	Alternative hypotheses	Statement number	Statement	p-value > or < 0.05	Significant or Insignificant
H ₈ :	The NCV or N-Course qualification influences the importance which students attach to the information sources on institutional reputation and image of the TVET College, the factors they consider engendering initial retention and	Statement (V20.2):	<i>Advertisement on radio stations</i>	0.00	Significant
		Statement (V20.11):	<i>Quality of academic facilities (library, laboratories, computers, etc.)</i>	0.05	Significant
		Statement (V20.16):	<i>This TVET College is located where employment opportunities are easily accessible</i>	0.02	Significant
		Statement (V20.17):	<i>Ease of getting home from this College</i>	0.00	Significant
		Statement (V21.1):	<i>Programme or course student intended to study at TVET College</i>	0.00	Significant
		Statement (V21.2):	<i>Overall employer perception of the TVET College's quality of education</i>	0.00	Significant
		Statement (V21.3):	<i>Emphasis on the importance of technical and vocational education</i>	0.00	Significant
		Statement (V21.4):	<i>Easy access to faculty</i>	0.02	Significant

success, and the factors they perceive prompting continuous retention and success at a TVET College.	Statement (V21.5):	<i>Affordable cost to my family</i>	0.00	Significant
	Statement (V21.6):	<i>Available financial assistance (bursary or loans or scholarships) opportunities</i>	0.05	Significant
	Statement (V21.11):	<i>Government encouraged students to study for this qualification/course</i>	0.01	Significant
	Statement (V21.12):	<i>Qualification or course that matches my expectations</i>	0.00	Significant
	Statement (V21.13):	<i>Pre-college and college entrance preparatory programmes</i>	0.05	Significant
	Statement (V21.15):	<i>Alternative entry requirements (various selection and admission requirements)</i>	0.03	Significant
	Statement (V22.1):	<i>Induction or orientation programme that prepares students for the College environment</i>	0.00	Significant
	Statement (V22.8):	<i>Flexible mode of study (afternoon, evening, Saturday classes)</i>	0.00	Significant
	Statement (V22.10):	<i>Available pre-college and college entrance requirements to secondary school students</i>	0.00	Significant
	Statement (V22.14):	<i>Provision of a bridging programme for applicants with minimum entry requirements</i>	0.00	Significant
	Statement (V23.9):	<i>Outdated facilitation or teaching methodology</i>	0.03	Significant

			<i>(inadequate of/minimum student participation)</i>		
		Statement (V22.10):	<i>Monotonous and boring teaching approaches</i>	0.00	Significant
		Statement (V22.11):	<i>Assistance with language policy factor (good command of medium of instruction for teaching and learning)</i>	0.00	Significant
		Statement (V23.13):	<i>Inadequate conducive study facilities and living space</i>	0.00	Significant
		Statement (V23.16):	<i>Inadequate supplementary learning activities (additional lessons, peer tutoring)</i>	0.04	Significant

- The influence of distance from the student's permanent home on various variables

Previous studies on distance from the student's permanent home could influence the importance of the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing student recruitment, retention and success in the Technical and Vocational Education and Training College environment.

Hypothesis 9 was thus formulated, and its results explained. The statistically significant differences across the distances in kilometers from student's permanent home are discussed on Table 5.19.

Table 5.19: The influence of distance from the student's permanent home on various variables

No	Alternative hypotheses	Statement number	Statement	p-value > or < 0.05	Significant or Insignificant
H ₉ :	Students who reside 50 km away from their permanent homes while studying influences the importance they attach to the	Statement (V20.6):	<i>TVET College publications (catalogues, brochures, etc.)</i>	0.04	Significant
		Statement (V21.8):	<i>Advice from family members or guardians or friends</i>	0.01	Significant

information sources on institutional reputation and image of the TVET College, the factors they consider engendering initial retention and success, and the factors they perceive prompting continuous retention and success at a TVET College.		<i>who studied at a TVET College</i>		
	Statement (V22.1):	<i>Induction or orientation programme that prepares students for the College environment</i>	0.02	Significant
	Statement (V22.10):	<i>Available pre-college and college entrance requirements to secondary school students</i>	0.05	Significant

- The influence of the father or male parents' (guardian's) level of education on various variables

As suggested on sections 2.2.2, 3.4.1.4, and 5.3, the father or male guardian's education and mother or female guardian's education were collapsed to become the parents' level of education. Therefore, the parents' (guardian's) level of education could influence the importance of the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing student recruitment, retention and success in the TVET College environment, the following hypothesis was thus formulated, and its results summarised.

The findings on the influence of the parents' (guardian's) level of education on student choice of College, and persistence or withdrawal (V16) are reflected in Table 5.20.

Table 5.20: The influence of the father or male parents' (guardian's) level of education on various variables

No	Alternative hypotheses	Statement number	Statement	p-value > or < 0.05	Significant or Insignificant
H ₁₀ :	The level of education of	Statement (V20.6):	<i>TVET College publications</i>	0.02	Significant

students' parents or guardians influence the importance which students attach to the information sources on institutional reputation and image of the TVET College, the factors they consider engendering initial retention and success, and the factors they perceive prompting continuous retention and success at a TVET College.		<i>(catalogues, brochures, etc.)</i>		
	Statement (V20.8):	<i>Electronic (website/internet) communication with the TVET College</i>	0.02	Significant
	Statement (V21.13):	<i>Pre-college and college entrance preparatory programmes</i>	0.02	Significant
	Statement (V22.5):	<i>Effective academic support activities</i>	0.04	Significant
	Statement (V22.15):	<i>Adequate knowledge of subject matter</i>	0.04	Significant
	Statement (V23.9):	<i>Outdated facilitation/teaching methodology (inadequate/minimum student participation)</i>	0.05	Significant
	Statement (V23.10):	<i>Monotonous and boring teaching approaches</i>	0.00	Significant
	Statement (V23.17):	<i>Poor quality of teaching and learning materials or lecture handouts</i>	0.03	Significant
	Statement (V23.21):	<i>Lecturers coming late or leaving classes before the end of teaching sessions</i>	0.01	Significant

- The influence of the parents' (guardian's) source of income on various variables

As suggested in sections 2.2.2, 3.4.1.4, and 5.3, the father or male guardian's source of income and mother or female guardian's source of income were collapsed to become the parents' (guardian's) source of income. Therefore, the parents' (guardian's) source of income could influence the

importance of the institutional reputation and image of the TVET College information sources, factors improving student academic performance, and factors increasing student recruitment, retention and success in the TVET College environment, and thus the following hypothesis was formulated, and its results summarised as indicated on Table 5.21.

Table 5.21: The influence of the parents' (guardian's) source of income on various variables

No	Alternative hypotheses	Statement number	Statement	p-value > or < 0.05	Significant or Insignificant
H ₁₁ :	The students' parents or guardians' source of income influences the importance students attach to the information sources on institutional reputation and image of the TVET College, the factors they consider engendering initial retention and success, and the factors they perceive to prompt continuous retention and success at a TVET College.	Statement (V20.3):	<i>Advertisements on TV</i>	0.02	Significant
		Statement (V20.9):	<i>Our school visits to this campus</i>	0.02	Significant
		Statement (V20.18):	<i>This is the only TVET College that provides for my academic needs</i>	0.04	Significant
		Statement (V21.3):	<i>Emphasis on the importance of technical and vocational education</i>	0.04	Significant
		Statement (V21.7):	<i>Motivation from my previous high school teacher(s)</i>	0.00	Significant
		Statement (V22.10):	<i>Available pre-college and college entrance requirements to secondary school students</i>	0.02	Significant
		Statement (V22.11):	<i>Schools and TVET Colleges jointly prepare students for college education</i>	0.04	Significant
		Statement (V22.14):	<i>Provision of a bridging programme</i>	0.04	Significant

			<i>for applicants with minimum entry requirements</i>		
		Statement (V23.2):	<i>Social involvement motivates me to continue studying at this college</i>	0.04	Significant
		Statement (V23.3):	<i>Expectations differed from the recruitment materials</i>	0.05	Significant
		Statement (V23.10):	<i>Monotonous and boring teaching approaches</i>	0.03	Significant

5.5.2 Presentation of factor analysis

Factor analysis is a method that uses standardised variables to condense large set of variables to a small manageable number of factors (Boslaugh, 2013:291; Pallant, 2011:181). The term ‘factor’ refers to independent variables that designate the groups being compared in the analysis of variance (Gravetter & Wallnau, 2013:388; Howell, 2011:455).

- (a) Factor analysis is used in this study to reduce and eliminate data which required or which was not consistent with the other data sets as explained below.
- (i) Steps involved in factor analysis

The SPSS generated Kaiser Meyer Olkin Measure (KMO) of sampling and Bartlett’s test of sphericity as statistical measures that assist in assessing the factorability of the data. This study conducted factor analysis and determined whether factor analysis would be commendable or not by using the following:

- The Kaiser Meyer Olkin Measure (KMO) of sampling adequacy was determined. The KMO index ranges from 0 to 1, with KMO > 0.6 suggested as the minimum value for a good factor analysis (Tabachnick & Fidell, 2007).

- The Bartlett's test of sphericity should be a significant value ($p < 0.05$) for the factor analysis to be considered appropriate.
- To determine if each of the questions in the factor shared sufficient correlation with at least one of the other factors, the Measure of Sampling Adequacy was determined, wherein if it was > 0.6 , the question was retained. In case not, the question was considered for exclusion from the factor analysis.
- The communalities of each question were determined. If the communality was ≥ 0.3 , the question was considered for retention. If not, the question was considered for exclusion from factors analysis.

(ii) Assessment of data suitability for factor analysis

The suitability of data for factor analysis was determined according to the following:

- Principal Factor Analysis (PFA)
- Eigenvalue > 1 method
- An oblique transformation called Direct Oblimin, as an orthogonal transformation could not be assumed
- Consideration of the percentage of variance explained by the number of factors

(iii) Factor matrix

Factors in this study were determined through the factor matrix as follows:

- Questions with the highest factor loading were retained to be part of the factors.
- If the question had low ($p < 0.2$) loading on each of the factors, such a question was deleted.
- Any factor with fewer than three questions was not considered to be a factor.
- Due to the fact that factors invariable consisted of a different number of questions, the factor average of each of the questions was determined to facilitate comparison between factors.

(iv) Reliability of each factor

The researcher used the Cronbach Alpha value at cut-off point 0.7 in determining the reliability of each factor in this study. The factor analysis determined the differences between factors from each of the following groups:

- the importance of institutional reputation and image information sources,
 - factors supporting academic persistence and success,
 - factors increasing academic success, and
 - the main factors influencing students either to persist or drop out from the TVET College
- (b) The outcome of the analysis (factors)

Table 5.22: Outcomes of analysis factors

Factor Analysis		
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.902
Bartlett's Test of Sphericity	Approx. Chi-Square	2917.582
	Df	153
	Sig.	0.000

**Table 5.23: Institutional reputation and image information sources (Rotated Factor Matrix^a)
outcomes**

Rotated Factor Matrix^a				
Part B: Important institutional reputation and image information sources (V20)	Factor			
	1	2	3	4
Safety and security at this TVET College/Campus (V20.14)	0.613			
Cleanliness/neatness of College/Campus premises (V20.13)	0.613			
This TVET College is located where employment opportunities are easily accessible (V20.16)	0.592			
Quality of academic facilities (library, laboratories, computers, etc.) (v20.11)	0.577	0.479		
Surroundings (neighbourhood, town or city) (V20.15)	0.571			0.438
On campus student residence/housing/hostels (V20.12)	0.497	0.328		
Ease of getting home from this College (V20.17)	0.491			0.365
This is the only TVET College that provides my academic needs (V20.18)	0.345			
TVET College website (V20.5)		0.647		
Electronic (website/internet) communication with the TVET College (V20.8)		0.559		
On-campus interview with admission staff (V20.8)		0.522		
Our school visits to this Campus (V20.9)		0.493		

School visiting college/campus during open days (V20.4)		0.426		
Advertisement on radio stations (V20.2)			0.740	
Advertisement on TV (V20.3)			0.728	
Printed media (such as newspapers/ magazines) (V20.1)			0.669	
Visits by admission TVET College staff at my high school (V20.7)		0.396		0.503
TVET College publications (catalogs, brochures, etc.) (V20.6)				0.360
Extraction Method: Principal Axis Factoring.				
Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 12 iterations.				

Table 5.24: Factors influencing student enrolment decisions (Principal Axis Factoring)

outcomes

Factor Transformation Matrix					
Factor		1	2	3	4
Factor 1B	V20 (14, 13, 16, 11, 15, 12, 17, & 18)	0.618	0.542	0.488	0.292
Factor 2B	V20 (5, 8, 10, 9 & 4)	0.652	-0.175	-0.722	0.152
Factor 3B	V20 (2, 3, & 1)	-0.284	0.821	-0.481	-0.120
Factor 4B	V20 (7& 6)	-0.335	-0.035	-0.096	0.937
Extraction Method: Principal Axis Factoring.					
Rotation Method: Varimax with Kaiser Normalization.					

Table 5.25: Outcomes of analyses factors (V21)

Factor Analysis		
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.936
Bartlett's Test of Sphericity	Approx. Chi-Square	3188.898
	Df	120
	Sig.	0.000

Table 5.26: Factors supporting academic persistence and success (Rotated Factor Matrix^a)

outcomes

Rotated Factor Matrix^a			
Part C: Factors considered important in supporting students' academic persistence and success (V21)	Factor		
	1	2	3
Pre-college and college entrance preparatory programmes (V21.13)	0.680	0.329	
Social life status/extracurricular activities (debate, drama, music, sports etc.) (v21.14)	0.578		

Alternative entry requirements (various selection and admission requirements) (V21.15)	0.577		
Government encouraged students to study for this qualification/course (V21.11)	0.529		0.438
Better option for those whose admissions are rejected by the universities (V21.16)	0.486		
Motivation from my previous high school teacher(s) (V21.7)	0.461		0.329
Qualification/course that matches my expectations (V21.12)	0.440	0.306	0.375
Emphasis on the importance of technical and vocational education (V21.3)		0.681	
Overall employer perception of the TVET College's quality of education (V21.2)	0.341	0.650	0.311
Programme / course I intended to study at TVET College (V21.1)		0.608	0.357
Easy access to faculty (V21.4)	0.314	0.589	
Available employment opportunities to qualifying students (V21.10)	0.399		0.610
Available financial assistance (bursary or loans or scholarships) opportunities (V21.6)			0.582
Potential well-paying jobs after completing this course/programme (V21.9)	0.308	0.383	0.567
Affordable cost to my family (V21.5)		0.357	0.509
Advice from family members/guardians/friends who studied at a TVET College (V21.8)	0.334		0.385
Extraction Method: Principal Axis Factoring.			
Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			

Table 5.27: Factors supporting students' academic persistence and success (Factor Transformation Matrix) outcomes

Factor Transformation Matrix				
Factor		1	2	3
Factor 1 C	V21 (13, 14, 15, 11, 16, 7 & 12)	0.606	0.570	0.555
Factor 2 C	V21 (3, 2, 1, & 4)	0.795	-0.466	-0.389
Factor 3 C	V21 (10, 6, 9, 5, & 8)	-0.037	-0.676	0.736
Extraction Method: Principal Axis Factoring.				
Rotation Method: Varimax with Kaiser Normalization.				

Table 5.28: Outcomes of analyses factors

Factor Analysis		
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.908
Bartlett's Test of Sphericity	Approx. Chi-Square	2396.219
	Df	120

	Sig.	0.000
--	------	-------

Table 5.29: Factors increasing academic success (Rotated Factor Matrix^a) outcomes

Rotated Factor Matrix ^a				
Part D1: Factors considered important in increasing academic success (V22)		Factor		
		1	2	3
Flexible mode of study (afternoon, evening, Saturday classes) (V22.8)		0.728		
Provision of ongoing college support (V22.13)		0.680		
Provision of a bridging programme for applicants with minimum entry requirements (V22.14)		0.663		
Links/functional partnerships with the industry/business (V22.9)		0.579		
Inviting potential employers to speak to students at the campus (V22.16)		0.516		
Friendly administrative and academic staff (V22.7)		0.457		
Course/qualification that prepares me for employment opportunities (V22.2)			0.691	
Course/ qualification content that matches students 'expectations (V22.3)			0.648	
Induction/orientation programme that prepares students for the College environment (V22.1)			0.624	
Relevant career guidance offered immediately after registration (V22.4)		0.404	0.410	
Effective academic support activities (V22.5)		0.320	0.373	0.320
Conducive campus climate for diverse students (i.e. Student from different background) (v22.6)			0.345	
Schools and TVET Colleges jointly prepare students for the College education (V22.11)				0.738
College/campus visit programme as a factor in students' enrolment decision (V22.12)				0.548
Available pre-college and college entrance requirements to secondary school students (V22.10)			0.318	0.486
Adequate knowledge of subject matter (V22.15)		0.369		0.387
Extraction Method: Principal Axis Factoring.				
Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 5 iterations.				

Table 5.30: Factors increasing students' academic success (Factor Transformation Matrix) outcomes

Factor Transformation Matrix				
Factor		1	2	3
Factor 1(D1)	V22 (8, 13, 14, 9, 16 & 7)	0.645	0.553	0.528
Factor 2(D1)	V22 (2, 3, 1, 4, 5, & 6)	-0.755	0.571	0.324
Factor 3(D1)	V22 (11, 12, 10 & 15)	0.122	0.607	-0.785

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.

Table 5.31: Outcomes of analyses factors (V23)

Factor Analysis		
KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.901
Bartlett's Test of Sphericity	Approx. Chi-Square	3088.700
	Df	210
	Sig.	0.000

Table 5.32: Factors influencing students either to remain or drop out from the TVET College (Rotated Factor Matrix^a) outcomes

Rotated Factor Matrix^a				
Part D2: Factors considered influencing students either to remain or drop out from the TVET College (V23)	Factor			
	1	2	3	4
Regular feedback on students' assessments (V23.7)	0.765			
Quality of teaching and learning that integrate study skills (V23.6)	0.640			
Outdated facilitation/teaching methodology (inadequate of/minimum student participation) (V23.9)	0.623			
Assistance with language policy factor (good command medium instruction for teaching and learning) (V23.11)	0.607			
Inadequate of conducive study facilities and living space (V23.13)	0.557		0.330	
Expectations differed from the recruitment materials (V23.3)	0.531			
Constructive feedback on students' academic progress (V23.8)	0.506			
Social involvement motivates me to continue studying at this college (V23.2)	0.487			
Inadequate supplementary learning activities (additional lessons, peer tutoring) (V23.16)	0.461			
Other family responsibilities after school (V23.12)	0.424			
Lecturers coming late or leaving classes before the end of teaching sessions (V23.21)		0.755		
Poor class attendance by students (V23.20)		0.690		
Poor quality of teaching and learning materials/ lecture handouts (V23.17)		0.626		
Lecturer absenteeism (V23.18)		0.624		
Inadequate student motivation (V23.19)		0.605		

Effective career guidance, academic support and advice services (V23.15)			0.607	
Adequate student support services facilities (V23.14)	0.393		0.535	
Insufficient effective student orientation and induction (V23.5)			0.397	
Learning experiences e.g. Wrong or second choice of course selection (v23.4)				
Monotonous and boring teaching approaches (V23.10)	0.407	0.383		-0.467
My academic performance encourage me to focus on studying hard (V23.1)				0.349
Extraction Method: Principal Axis Factoring.				
Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 6 iterations.				

Table 5.33: Factors influencing students either to remain or drop out from the TVET College (Factor Transformation Matrix) outcomes

Factor Transformation Matrix					
Factor		1	2	3	4
Factor 1(D2)	V23 (7, 6, 9, 11, 13, 3, 8, 2, 16 & 12)	0.752	0.484	0.448	-0.022
Factor 2(D2)	V23 (21, 20, 17, 18 & 19)	-0.465	0.847	-0.144	-0.215
Factor 3(D2)	V23 (15, 14, 5, 4 & 10)	-0.376	0.074	0.587	0.713
Factor 4 (D2)	V23 (1)	0.277	0.209	-0.659	0.667
Extraction Method: Principal Axis Factoring.					
Rotation Method: Varimax with Kaiser Normalization.					

(c) Presentation of the descriptive statistical analysis results in table from

Table 5.34: Descriptive statistical analysis results

Factors on Institutional reputation and image information sources						
Factors	Theme	Range	Mean	Std. Deviation	KMO	Chi-Square
Factor 1B	Institutional reputation and image	V20 (14, 13, 16, 11, 15, 12, 17, & 18)	3.90	1.285	0.902	2917.582
Factor 2B	Student recruitment initiatives	V20 (5, 8, 10, 9 & 4)	3.59	1.29	0.902	2917.582
Factor 3B	Factors influencing student decisions	V20 (1, 2, 3, 6 & 7)	3.39	1.314	0.902	2917.582

Factors on academic persistence and success support						
Factors	Theme	Range	Mean	Std. Deviation	KMO	Chi-Square

Factor 1 C	Pre-preparatory programmes	V21 (13, 14, 15, 11, 16, 7 & 12)	3.82	1.212	0.936	3188.898
Factor 2 C	Importance of TVET College education	V21 (3, 2, 1, & 4)	4.01	1.324	0.936	3188.898
Factor 3 C	Career choice and employment opportunities	V21 (10, 6, 9, 5, & 8)	3.80	1.255	0.936	3188.898

Factors on increasing academic success						
Factors	Theme	Range	Mean	Std. Deviation	KMO	Chi-Square
Factor 1(D1)	Available academic support opportunities	V22 (8, 13, 14, 9, 16 & 7)	3.73	1.385	0.908	2396.219
Factor 2(D1)	College relevant courses or programmes	V22 (2, 3, 1, 4, 5, & 6)	4.33	0.970	0.908	2396.219
Factor 3(D1)	TVET College and school collaborations	V22 (11, 12, 10 & 15)	3.820	1.212	0.908	2396.219

Factors influencing students either to remain or drop out from the TVET College						
Factors	Theme	Range	Mean	Std. Deviation	KMO	Chi-Square
Factor 1(D2)	Effective student support services	V23 (7, 6, 9, 11, 13, 3, 8, 2, 16 & 12)	3.74	1.145	0.901	3088.700
Factor 2(D2)	Student expectations and experiences	V23 (21, 20, 17, 18 & 19)	3.33	1.341	0.901	3088.700
Factor 3 (D2)	Career and academic advisory services	V23 (15, 14, 5, 4 & 10, 1)	4.44	0.873	0.901	3088.700

5.5.3 Presentation of the analysis of variables (ANOVA) tests

The analysis of variance (ANOVA) is a statistical method used when the researcher intends to test the hypothesis of differences between two or more means (Boslaugh, 2013:206; Crismann, 2012:141). This test is called ANOVA because the procedure involves partitioning the variance attributed to the variance observed in a data set to different causes or factors (Boslaugh, 2013:206; Pallant, 2011:249). Accordingly, Brown and Saunders (2008:88) emphasised that ANOVA is used to infer the likelihood wherein three or more distinct groups are different.

This test determines whether three or more independent groups differ significantly or do not differ from each other in values recorded for numerical variables. The research used the analysis of variance in order to test and compare the different mean values between the institutional image and reputational information sources, factors that support academic persistence and success, and those factors which increase the academic success with each statement from the questionnaire.

The following hypotheses were tested: the null hypothesis (H_0) that the mean of each statement in **Parts B, C and D** of the questionnaire is the same. The alternative hypothesis (H_a) is that at least one of the means of each statement in Parts B, C and D of the questionnaire has a different mean.

In this study, the researcher compared the means of the institutional image and reputational information sources, factors supporting academic persistence and success, factors increasing academic success, and factors influencing students either to remain or drop out from the TVET College. The means of factors 1, 2, and 3 of **B, C, D1 and D2** are not the same between and within the groups.

In multiple comparisons, factor 3 of **B**, the mean of factors influencing student decisions, differ from the mean of career choice and employment opportunities (factor 3 of **C**), available academic support opportunities (factor 1 of **D1**), and student expectations and experiences (factor 2 of **D2**). In general, there are few significant differences ($p\text{-value} < 0.05$) between groups of means of the factors. For instance:

- the significance between factors influencing student decisions (smaller means), career choice and employment opportunities, and the significance between the available academic support opportunities and student expectations and experiences with regard to students' decision either to continue studying or dropout from the TVET College, which is less influential in students' retention and success.
- the significance between career choice and employment opportunities (smaller means), available academic support opportunities, student expectations and experiences with respect to students' retention and success is of concern.
- The other differences are indicated on Tables 5.11 to Table 5.21.

5.6 SUMMARY

The planned sample was compared with the actual number of students who participated and responded in this study. The data collected quantitatively was analysed and presented using different statistical test methods to compare how different variables influencing student retention and success. The empirical analysis was presented using the chi-square test and the analysis of variables tests in determining variables that significantly influence student retention and success.

Chapter 6 focuses on a discussion of the research findings based on the qualitative data.

CHAPTER 6

PRESENTATION OF QUALITATIVE RESEARCH FINDINGS

6.1 INTRODUCTION

In this chapter the researcher presents the research findings regarding the qualitative data collected for this study. The results are based on the interviews conducted with the Technical and Vocational Education and Training (TVET) Colleges' staff members as outlined in sections 1.8.3.1, 4.5.1 and 4.6.3.1. The research findings from the interviews provide a broader understanding of the general management of student retention and achievement within the TVET College education system. This broader understanding was drawn from knowledgeable and experienced sampled employees, namely Campus Managers, Student Support Service Managers, Technical and Vocational Education and Training Management Information Systems (TVETMIS) Managers, and College Lecturers from the TVET Colleges in Limpopo Province.

The main focus of the semi-structured interviews and perusing the annual reports was to respond to the research question and the research objectives which are restated as follows:

6.1.1 Primary research question

The primary research question for this qualitative phase focused on the participants' knowledge and lived experience regarding the management of student retention and success and then formulated as follows:

How can student retention and success at TVET Colleges be effectively managed?

6.1.2 Secondary research questions

The secondary research sub-questions in this qualitative research phase 2 were:

- What are the main institutional image and reputational aspects that influence students to choose a specific TVET College?
- What are the main institutional communication sources used in recruiting prospective students to enrol at TVET Colleges?
- What are the main aspects that influence student persistence and academic performance at a TVET College?

- What are the main student support services aspects that initially either motivate or hinder student retention and success at the TVET College institutions?
- What are the main student support services aspects that continuously either motivate or hinder student retention and success at the TVET College institutions?
- What are other additional aspects that should be considered for improving student recruitment, retention and success at the TVET College institutions?

6.1.3 Research objectives

The primary research objectives in this phase 2 of this study were to:

- investigate which institutional image and reputational aspects influence students to choose a specific TVET College rather than the other;
- determine the main institutional communication sources used in recruiting prospective students to enrol at TVET Colleges;
- investigate the main aspects that influence student persistence and academic performance at a TVET College;
- determine the main student support services aspects that initially either motivate or inhibit student retention and success at the TVET College institutions;
- determine the main student support services aspects that continuously either motivate or hinder student retention and success at the TVET College institutions; and
- ascertain any other additional aspects that may contribute towards the management of student recruitment, retention and success at the TVET College institutions.

The qualitative part of this study focused on the above research questions and objectives of which the findings are presented next.

6.2 BACKGROUND INFORMATION ON THE RESEARCH SITES

As discussed in Chapter 4 (Research Methodology) of this study, the participants were sampled through the purposive sampling method from Capricorn, Letaba, Lephale, Sekhukhune, Vhembe and Waterberg TVET College institutions. Mopani South East TVET College was used as the pilot study.

These are the institutions formed after merging the former state-aided and state Technical Colleges based in urban and rural areas. These TVET Colleges were merged as follows:

Capricorn (Pietersburg, Ramokgopa, Senwabarwana and Seshego Campuses), Letaba (Giyani, Maake, and Tzaneen Campuses), Lephalale (stand-alone), Mopani South East (Phalaborwa and Sir Val Duncan Campuses), Sekhukhune (CN Phatudi and CS Barlow Campuses), Vhembe (Mashamba, Makwarela, Mavhoi, Shingwedzi and Tshisamane Campuses) and Waterberg (Lebowakgomo, Makgwelereng, Mokopane Campuses) TVET Colleges. Limpopo being a rural province, all these institutions work in partnership with the mining, agricultural and tourism environments to serve the semi-urban and rural communities of Limpopo Province. These institutions employed lecturing personnel who predominately possess qualifications ranging from national diplomas to university degrees to teach both the National Certificate Vocational and the National Technical Education courses offered at different levels in Business and Engineering Studies.

The interview data is presented focussing on the influence of the institutional image and reputational information sources on student recruitment, retention and success in the TVET College environment. This is supplemented by research findings on the main factors that improve students' academic performance, and that increase student recruitment, retention and success at the TVET College institutions. These are discussed as research findings representing the main themes emerging from an analysis of data from the interview transcripts. Participants from the different TVET Colleges are distinguished from each other as indicated in Table 6.1.

6.3 DISTRIBUTION OF PARTICIPANTS BY TVET COLLEGE AND POSITION

The participants interviewed in this study are depicted in a tabular format that displays their gender, their positions at their institutions, and the specific TVET Colleges they represented.

Table 6.1: Distribution of participants by TVET College, position and gender

No	Participant code	TVET College	Position	Gender
1.	CM1	TVET C Number 1	Campus Manager	Female
2.	SM1	TVET C Number 1	Student Support Services Manager	Male
3.	EM1	TVET C Number 1	TVETMIS Manager	Female

4.	CL1	TVET C Number 1	College Lecturer	Female
5.	CM2	TVET C Number 2	Campus Manager	Male
6.	SM2	TVET C Number 2	Student Support Services Manager	Female
7.	EM2	TVET C Number 2	TVETMIS Manager	Male
8.	CL2	TVET C Number 2	College Lecturer	Female

9.	CM3	TVET C Number 3	Campus Manager	Male
10.	SM3	TVET C Number 3	Student Support Services Manager	Female
11.	EM3	TVET C Number 3	TVETMIS Manager	Male
12.	CL3	TVET C Number 3	College Lecturer	Female
13.	CM4	TVET C Number 4	Campus Manager	Female
14.	SM4	TVET C Number 4	Student Support Services Manager	Male
15.	EM4	TVET C Number 4	TVETMIS Manager	Male
16.	CL4	TVET C Number 4	College Lecturer	Female
17.	CM5	TVET C Number 5	Campus Manager	Female
18.	SM5	TVET C Number 5	Student Support Services Manager	Male
19.	EM5	TVET C Number 5	TVETMIS Manager	Male
20.	CL5	TVET C Number 5	College Lecturer	Male
21.	CM6	TVET C Number 5	Campus Manager	Male
22.	SM6	TVET C Number 5	Student Support Services Manager	Male
23.	EM6	TVET C Number 5	TVETMIS Manager	Female
24.	CL6	TVET C Number 5	College Lecturer	Male

Table 6.1 depicts the distribution of the twenty participants comprising of the Campus Manager, Student Support Services Manager, TVETMIS Manager, and College Lecturer from each selected TVET College in Limpopo Province.

6.4 PRESENTATION OF THE INTERVIEW FINDINGS

In order to have identified all the themes presented in this study, all narrative responses were content analysed using an open-coding process (Berg, 2007:187; Taylor & Bogdan, 1998:109). In order to elicit themes from the interview responses, words and phrases were the units of analysis.

Specifically, coding involved examining all the responses, keeping track of explored themes, assigning words and symbols to each coding category, and examining how the themes presented are specifically related to the employees' perception of student retention and success at the TVET College institutions.

These findings are organised around four explored themes pertaining to student responses to TVET College provisioning: (1) institutional image and reputation influencing the management of student recruitment, retention and success, (2) institutional image information sources as an influencer of the management of student recruitment, retention and success, (3) the main effective aspects considered important in supporting academic persistence and success at a TVET College, and (4) the main student support services motivating students to continue studying or hindering them resulting in withdrawal from specific TVET Colleges. These four themes are supplemented by the fifth theme representing other contributory aspects that increase student recruitment, retention and success in the TVET College system.

The semi-structured face-to-face interviews were directed by ten questions listed with the research objectives, the latter serving the purpose of guiding the responses.

Table 6.2: Questions guiding interviewing procedures

No	Interview questions	Outcomes to be gained
1.	1.1 TVET Colleges are characterized by low student retention and success rates. Secondly the throughput rate is low ($\pm 4\%$), student withdrawal/dropout rate is high (13%-25%) in the National Certificate Vocational (NCV) programmes, and poor	Objective 1: To determine the format used to avail student retention, throughput and student dropout statistics. Also to investigate the lived experiences relating to how institutional image and reputational aspects influence students to choose a specific TVET College rather than the other.

	<p>certification rate (12%) of the Report 191 (NATED) Courses. What is your comment on the low rates of student retention and throughput and the high rates of dropout?</p> <p>Are you aware of these statistics?</p> <p>In what format are you informed about student retention, throughput and student dropout statistics?</p> <p>1.2 Do you believe that potential students choose to enrol at this TVET College because of its institutional reputation?</p> <p>1.3 In your opinion what are the main reputational aspects influencing students to choose the specific TVET College rather than another College?</p>	<p>Anticipated outcomes 1:</p> <p>The knowledge and lived experiences relating to how institutional image and reputational aspects influence students to choose a specific TVET College rather than the other.</p>
2.	<p>2.1 Do you believe in the view that institutional image and reputational information sources influence prospective students' choices to enrol at a specific TVET College rather than another one?</p> <p>2.2 What are the main institutional image and reputational information sources used to attract prospective applicants when recruiting and selecting students to enrol at a specific TVET College?</p>	<p>Objective 2:</p> <p>To determine the main institutional image and reputational information sources used to attract prospective applicants when recruiting and selecting students to enrol at a specific TVET College.</p> <hr/> <p>Anticipated outcomes 2:</p> <p>The main institutional image and reputational information sources used to attract prospective applicants when recruiting and selecting students to enrol at a specific TVET College.</p>
3.		<p>Objective 3:</p>

	3.1 What are the main effective factors considered important in supporting academic persistence and success at a TVET College?	To investigate the knowledge relating to the main effective aspects considered important in supporting academic persistence and success at a TVET College.
	3.2 What are the most significant types of external aspects encouraging students to remain studying at a TVET College until completing their qualification?	Anticipated outcomes 3: The available main effective aspects considered important in supporting academic persistence and success at a TVET College.
4.	4.1 What are the main student support services aspects that either initially motivate or hinder students to continue studying or withdrawing from the TVET College institutions?	Objective 4: To determine the knowledge and lived experiences relating to the main student support services aspects that either initially and continuously motivate or hinder students to continue studying or withdrawing from the TVET College institutions.
	4.2 What are the main student support services aspects that either continuously motivate or hinder students to continue studying or withdrawing from the TVET College institutions?	Anticipated outcomes 4: The main student support services aspects that either initially and continuously motivate or hinder students to continue studying or withdrawing from the TVET College institutions.
5.	5.1 Is there anything else that you think must be considered that may improve the management of student retention and success in TVET College institutions?	Objective 5: To ascertain any additional aspects that may contribute towards the effective management of student recruitment, retention and success in the TVET College institutions.
		Anticipated outcomes 4: Any additional additional aspects that may contribute towards the effective management of student recruitment, retention and success in the TVET College system.

The researcher constantly probed and encouraged the participants to provide detailed responses which gave them a chance to articulate and express themselves without being restricted in addressing each question with the intention to contribute meaningfully to a deeper understanding of the management of student retention and success within the TVET College education.

In the next section the research findings are discussed by means of the main themes and their sub-themes relating to the management of student recruitment, retention and success as perceived by those who participated in the interviews.

6.4.1 Theme 1: Institutional image and reputation as an influencer of the management of student recruitment, retention and success at the TVET College institutions.

Technical and Vocational Education and Training (TVET) Colleges in South Africa are at different stages of development due to their historically different access to resources that impacted on their image and reputation and which remain a challenge albeit 25 years of a new democratic dispensation has passed. The government expects the TVET Colleges to become the cornerstone of the country's skills development systems and therefore expect an increase in student enrolment (DHET, 2013:12). This growth is aimed at addressing the country's acute skills shortages.

Regarding the theme pertaining to institutional image and reputation as an influencer of the management of student recruitment, retention and success at the TVET College institutions, the following sub-themes emerged from the data collected (Table 6.2):

- Awareness of the low student retention and success rates, low throughput rates, and high student withdrawal and dropout rates at TVET Colleges;
- Institutional reputation influencing potential students to choose to enrol at the specific TVET College; and
- The main reputational factors influencing students to choose a specific TVET College.

The first question required participants to comment on the management of student retention and success, and throughput and withdrawal rates while simultaneously questioning them on their awareness about the relevant statistics pertaining to student retention, throughput and withdrawal at TVET Colleges. This sub-theme, namely participant awareness of the low rates of student retention

and success, and throughput rates, and high student withdrawal and dropout rates in TVET College institutions, emerged from an analysis of participants' knowledge and experience of these statistics. Participants responded to the question:

“what is your comment on the low rates of student retention and throughput and the high rates of dropout and are you aware of these statistics. In what format are you informed about student retention, throughput and student dropout statistics?”

The majority (18 out of 24) of the TVET College employees (Table 6.1) who participated in this study confirmed that they were aware of the low rates on the management of student retention and success, and low throughput rates. Out of the six Campus Managers interviewed, three indicated that they were aware of the low achievements regarding retention and throughput rates by acknowledging this awareness as follows:

I am aware of it because we do get the statistics from DHET and we are being cautioned about all of these, and we do try and change it, and as far as the certification is concerned we are not doing what is expected of us” (CM1).

“I am aware of these statistics even though I do not have the information that is given. But as far as I was working in these TVET Colleges I want to believe that for this question that is raised and the information that is indeed very-very true” (CM2).

CM3 acknowledged the low retention and throughput rates and considered students' lack of competency and ambition as the reason for this negative situation:

“Without any background of mathematics and science, and they are just excited by the issue of saying that there is bursary in the FET Colleges, not having the interest actually. Just because they will be kept busy there in the FET Colleges. That is the main cause of low student retention in these FET Colleges.”

The following comments express some level of uncertainty and a way of avoiding committing on the specified statistics although the participants were all familiar with the statement on student retention and dropout provided and acknowledged the importance of the TVET education for economic growth:

“I have not seen these statistics, but I know what you are talking about” (CM4).

Yes, I am very much aware and just unfortunate that the TVET institution, in terms of the national qualification framework is the heart beat of the national qualification framework where we need to ensure that the pass rate becomes higher. This is the engine of the economy of South Africa” (CM5).

“Yes, having been involved in the TVET institutions for quiet sometimes I agree with some of the statements that are put there from the DHET side. It is true that we have challenges at the College level in terms of the rate at which we take in students. The rate at which we are able to keep them, as well as the rate at which we make them to exit. So they are serious challenges in that regard especially in terms of throughput rate and then the certification rate. Low student success rates even show seriously in the NATED courses” (CM6).

As with the Campus Managers, four out of six Student Support Managers who participated in interviewing admitted that they were aware of the negative situation with regard to student retention, success, and throughput rates:

“Yes, I am familiar with these and also agree that somehow the retention rate is not very good” (SM1).

“Yes, I am aware about these statistics. And my understanding on that one is because of how we take the students” (SM2). When asked on what is meant by how students are ‘taken’, in the words of SM2: *“at times applicants are allowed to enrol for certain courses without relevant subjects and the minimum marks as the per admission requirements.”*

“Yes, the statements are familiar, and I agree although I have not seen them, but student retention is problematic” (SM3).

“I am aware, but I have not read about these statistics, but student performance is low” (SM4).

“Yes, as TVET Colleges we are really struggling to keep our students within our Colleges, some of them enrol and they leave before they complete their studies” (SM5).

“We do not know the precise percentage, but we are aware of the challenges because we are also experiencing them here at the College” (SM6).

The six Technical and Vocational Education and Training Management Information Systems (TVETMIS) Managers who participated in this study expressed various opinions relating to the poor student retention, low certification and throughput rates as responses depicting their different interpretations and understandings of the student drop out statistics at TVET Colleges.

“I am less aware, at Capricorn College which is definitely not as low as towards that you have mentioned” (EM1).

EM2 emphasised the factor of taking into account the subminimum requirement for examination access influencing student dropout negatively, but student success in terms of obtaining a qualification positively:

“I will have to disagree for Letaba TVET College, because my statistics show that our student retention rate is actually quite high. The certification might be low, but it varies from here to there. The new ICASS sub minimum changed the field of the certification and retention quiet drastically in that student retention dropped because fewer students are qualifying to write their examination, but the certification increased”.

EM5 acknowledged his college’s low throughput rates which could relate to enrolling for too many subjects resulting in eventually not passing any subject:

“Yes I am aware. In our case low student retention happens at the entry levels (level 2). For the first time the student never failed and now fails maybe more subjects. Then the student feels like s/he won’t come back. But as soon as the student is successful at that entry level, there is likelihood that that student can make it at a record time. These are the things that counter against the throughput rate.”

EM6 commented on the need to distinguish between student retention for one year of successful studying and retention with regard to completing a qualification:

“At what student retention are we looking at it? There is pass retention, that is the number of students that enrolled at the beginning of the year and at the end of the year they write the exam. That is the retention that we report on. For this college that student retention is high ($\geq 80\%$). Students that enrol and at the end of the year they still write their exams. But if we look at student retention like throughput rate when the students start, and you give them five years to complete, that retention is low. We are at about 31% to 35% depending at the programme as a college” (EM6).

Four out of six TVET College lecturers confirmed that they are aware of the student retention and success and throughput rates:

“I am not quite sure of the exact percentage, but I am aware of most of the things you have spoken about there” (CL1).

“Yes, with absenteeism and drop outs the rate is too high and that also causes low throughput” (CL2).

“Yes, I am quite aware of these statistics. There are a lot of things that are leading to that. One, it has to start with curriculum itself. Because the way we are implementing the curriculum is not really the way it is supposed to be” (CL3).

“Yes, although I am not sure of the exact figure. I am aware of the things you have mentioned” (CL4).

Related to the comment made by CM3 on students only being interested in the bursary money they receive and not in obtaining knowledge and skills for possible employability, CL5 concurred with this views and wished for a more constructive way of allocating bursary funds linked to accountability for using that bursary money. CL5 commented as follows:

“What we find out is that most students will come and register just to get access to the bursary. And you’ll find that some of them do not even complete the year. I think if we can tighten our measures to control student funding that can assist in improving student retention and success rates.”

CL6 acknowledged the low throughput rates which he related to not being prepared for after-school studying:

“Yes, I am aware of these statistics. What I should indicate is that low throughput rates start with the admission policy together with how the students at high schools view TVET Colleges. If you can check most of the students fail at their entry levels because of poor high school subjects background used to enrol at these institutions.”

This discussion with the participants indicated that except for CM3, CM4, EM1, EM2 and EM6 the other 20 TVET College employees were aware of the low level of student retention and success, low throughput rates and high rates of student withdrawal across the TVET Colleges. These College employees are also concerned about the possible contributory factors leading to these trends of limited success with TVET College tuition which, according to them, mainly related to lack of adherence to the admission policy, poor background in mathematics and science, and focusing on the money from the available bursary instead of their academic performance. Also, the concept of student retention and success is interpreted differently by participants with this difference in interpretation relating to fulltime students who enrol and complete their studies at the same institution within the prescribed period or those who complete their studies, but at another institution. At the same time some students temporarily suspend their studies and resume with their studies after a given period. It is important for the TVET Colleges to accurately identify factors contributing to the low academic performance of students and then determine fundamental interventions to resuscitate the aspirations and confidence of public expectations.

6.4.1.1 **Sub-theme 1:** Students choose to enrol at the specific TVET College because of its institutional reputation

In most cases the first-year entry students at the TVET College institution pre-dominantly walk-in to a particular learning institution and queue for applying with the hope of simultaneously also enrolling for the course instead of having to apply for registration in advance. For instance, the student stampede on 11 January 2018 at Capricorn TVET College's Polokwane Campus was the result of the walk-in students demanding registration on the same day of applying to enrol for a course. The majority of these students come from faraway places where their families are hoping they will be enrolled in well-known learning institutions.

The sub-theme, namely 'potential students choose to enrol at this TVET College because of its institutional reputation' focused on responses provided by the participants to the question: "do you believe that potential students choose to enrol at this TVET College because of its institutional reputation?"

All four Campus Managers who participated in this study were of the opinion that their institutions' reputation was good, motivating students who are inclined to practical work to enrol at their Colleges. Regarding the institutional reputation, CM1 indicated that they have a good reputation and that they:

"Are lucky in a sense that we have a positive image, and we work hard to get it there and to keep it there, we know that Polokwane Campus, in Polokwane itself being a city is very popular".

CM2 pointed out: *"I believe they choose to enrol here because of the college's reputation,"* while

CM3 had another view pertaining to TVET College students not having any other choice than to join TVET Colleges because of their specific kind of aptitudes relating to not being inclined to academic work:

"Those who cannot make it at schools are referred to the FET where they can work with their hands, they do the practical work."

CM4 pointed out that their college's reputation is said to be the only college available in a desolate area:

"We are in a deep rural area; our students do not have a choice. They are staying very far from other TVET Colleges and they do not have money, so they cannot go to the other Colleges, so I really think it is because we are the only college around here."

For CM5, her institution's good reputation was related to providing for the development of entrepreneurial skills:

“We have developed a lot since former Ambag’s man days, we have developed a lot of entrepreneurs which are currently the ones that are contributing to the economy of Vhembe District”.

CM6 emphasised that his College’s history serves as good reputational motivation for students to enrol there because: *“everything in what attracts students reflects in the history of the College itself”.*

Regarding the perception that prospective students choose to enrol at the specific TVET College because of its institutional reputation, four out of six Student Support Managers interviewed in this study related student choice to the previous good academic results that made these institutions popular to an extent that students prefer institutions which are in the cities whereas students who are in desolated rural areas have limited TVET Colleges to choose from:

“As a college we can really pat our backs and say we are doing well, most of the students prefer to come to this TVET College” (SM1).

“Students come and register at this TVET College because of its popularity and the reputation that was made previously. And at times this College also attracts even the ones that are not here to be focused when it comes to their studies. This institutional reputation has an impact” (SM2).

“These students enrol at this campus because of its location, they do not have more options, other colleges are further away from this area” (SM3).

Related to the comment by SM3 on location as the main deciding factor for student enrolment, SM4 concurred that her College is also situated in a deep rural environment resulting in limited number of the TVET Colleges for prospective students to choose from:

“Students find it closer to where they come from. They have few choices. They are staying very far, in to the deep rural areas and they do not have money. So, they cannot go to the other colleges and accommodation nowadays is expensive, and the other colleges might not have accommodation as well”.

“I believe because of its popularity, Vhembe TVET is well known. I believe that on its own it is enough to can attract more people to enrol here” (SM5).

SM6 related his College’s good reputation to acceptable throughput rates:

“It is because of its reputation, the number of graduates from our College especially the local population”.

Four out of six Technical and Vocational Education and Training Management Information Systems (TVETMIS) Managers’ responses with regard to their perceptions on potential students’ choice to enrol at the specific TVET College because of its institutional reputation related to the consistent

provisioning of good quality and acceptable education, location, limited options to choose from, and the views that students only enrol so that they can receive free financial assistance:

EM1 explained,

I think that they do attend at this College because of its location in Polokwane, which is a city, at Seshego and because of the Engineering programmes.”

EM2 stated:

“Students register here because of the results obtained from this College. The reputational image influences them.”

“Our students come to this campus as they have seen others passed, get employed. Also, there are no other TVET Colleges to go to; they are far from their homes” (EM3).

“My observation is that in most cases we take students who have been rejected elsewhere before walking into this institution” (EM4).

EM5 felt positive about his college’s reputation pertaining to good quality provisioning resulting in acceptable throughput rates:

“Students enrol here because of both popularity and the image. This is since there are some programmes that are being offered that are producing very good success rates.”

EM6 referred to the influence of bursaries on increased student enrolment, however with decreasing student success:

“In the past years yes, for sure as a College we were the top performing institution with regard to the certification rates. But we had drop down in that. And the main contributing factor can also be the NSFAS bursaries because students just enrol because there is this bursary funding and it is not that the student really wants to complete.”

With regard to the view that potential students choose to enrol at the specific TVET College because of its institutional reputation and image information sources, the six TVET College Lecturers determined factors relating to easy access to employment opportunities, the College being close to the students’ homes, lack of funds to enrol at other Colleges that are far from their homes, and geographical location in general.

“Most of our students as compared to other TVET Colleges get work opportunities with ease” (CL1).

“Students prefer this TVET College due to its popularity” (CL2).

“Most of these students do not know other TVET Colleges closer to their homes; some students heard about this College from those who studied here that they get work opportunities after completing their studies from this College” (CL3).

CL 4 pointed out that their students

“are staying very far from other TVETs, they cannot afford, they do not have funds to go to the other colleges”.

CL5 had a different view on students’ choice of enrolment at a specific college which related to students deliberately choosing to reside in a rural environment:

“I think basically these students enrolled at this College based of its geographical location because it is based in the deep rural area.”

CL6 was satisfied that,

“at this TVET College we have students who are here because our College is popular.”

The responses suggest that prospective students choose to enrol at the TVET College based on its previous good records and that students from the desolate rural areas have limited options to choose where to study, and they are therefore obliged to enrol at the nearest TVET College. Despite the general perception that most potential students aspire to study at learning institutions located in cities, there are some students who deliberately prefer to reside and pursue their studies in rural environments for reasons relating to accessibility with accompanying affording prerequisites.

6.4.1.2 **Sub-theme 2:** The main reputational factors that influence students to choose a specific TVET College rather than another College.

Concerning this sub-theme, namely the main reputational factors that influence students to choose a specific TVET College, participants responded to the following question: *“In your opinion what are the main reputational factors that influence students to choose this specific TVET College? (Part B of the questionnaire – Appendix J).*

From the answers of participants, it became clear that students’ choice of College related to factors such as safety and security at the College, the general cleanliness of the campus, ease of getting from and to the college (transport), facilities provided at the College such as workshop infrastructure, the

availability of libraries, laboratories and student housing at the College, and the geographical location of the institution (Table 5.3).

With regard to the answers of the Campus Managers who were interviewed, the main aspects influencing student choice related to safety and security, the geographical location of the College in a city or rural environment, the only TVET College available in a desolated area, and employment opportunities.

- **Safety and security at campuses**

CM1 distinguished her TVET College's limited exposure to strikes, the cleanliness of the campus and the situatedness of the College within a city environment as alluring factors for student choice which results in a constantly increasing demand for accommodation for students from rural areas. CM1 responded as follows:

"This College has reputational safety. We never had incidents of injuries when it comes to strikes we always have security".

CM2 attributed his College's good record with regard to safety to the rural situation of the College with much influence exerted by traditional leaders:

"My honest opinion on the safety and security revolves around the environment at which this college is situated. It is safe since most of the people are from rural villages. They are not urbanised, and our students are under the indunas and chiefs which have got so much traditional backgrounds that keep these learners to that level of morals."

It was apparent that the level of crime was a determining factor for students' choice of College enrolment.

Except for some student support managers who were cautious about the level of safety and security, other interviewees agreed that they serve a predominately rural community whereby the level of crime is relatively lower. They commented as follows on low crime levels in rural communities:

"We attract students from disciplined families, who come with that background of more peaceful kind of life as compared to other places. So that's why may be the safety level is little bit acceptable or tolerable" (CM6).

"I can say the advantage is that this is a rural area that is why we do not have things such as those thugs like in the townships where people have that mind of criminality. Naturally at this place, students have that kind of respect to other people" (EM4).

“Students within this campus are safe and secured. Anyone is free to study or sit wherever they want to sit. We never had any incidences wherein we have encountered unsafe situations and reports like that” (SM5).

“The safety and security are good, we do not experience crime that much here” (EM2).

“This place is safe; the level of crime is acceptably low” (EM3).

EM5 reported as follows:

“In all the campuses we have never experienced any violence in respect to the way other provinces are experiencing criminal cases. Like you find that students who are walking alone after school perhaps are raped or robbed of their books or whatever instrument that they carry like cell phones never happened to our students. So, our safety is ok.”

EM6 commented:

“With regard to safety and security I would say yes in that case our campuses are secured. If we look at our fencing the security that we have it is fine.”

Continuous regular safety and security checks at the TVET Colleges serve as a precautionary measure to fight and prevent criminal activities at these institutions. In her responses CM4 indicated:

“There was an incident previously wherein our girls were raped during the evening. It is unlike during the day which is not that bad. Although I would not say that we totally do not have crime, students are safe. We do have the security personnel and you know they do search for metals using the metal detectors used in searching students, and cars are searched so for that part you know in the campuses are secured.”

Unattended safety and security measures could ultimately impact on the TVET College’s reputational image. Explaining this, student managers articulated the current status at their individual institutions as follows:

SM2 stated,

“I would say safety influences potential students to choose this institution. Safety and security is there, but we still need something else that assists in making it tight. But at times you may find that there are those who get access to the campus or the College without the knowledge of the officials, by giving the security the wrong information maybe at the gate.

SM3 asserted,

“The College environment is safe. We do not have incidents of criminal cases such as stealing and rapes.”

“You know crime is not that high, but in the evening is not that safe. Crime is not that bad during the day” (SM4).

For SM6 the level of safety is exceptionally high:

“Although we once had rape case, it was not a rape in the true sense because it was a student who was involved with lecturers. If we are to rate our safety it can be rated at 90+ it is not really 100%, you need not to leave your stuff like laptop in the class, and you cannot guarantee safety.”

- **The general cleanliness of the campus**

Cleanliness was determined as an important factor of institutional image and reputation influencing student enrolment tendencies. Although participants agreed about the influence of cleanliness on student enrolment choices, they had different views regarding the level of cleanliness of their respective institutions:

CM1 had the following opinion about their campus:

“We have clean campuses which make us to be proud and we always try to incentivise students to be proud of the campus”.

CM6 commented as follows:

“Let me start from the cleanliness part which is that every institution has its own culture. There is an established culture wherein we always regard cleanliness as the enabling environment for teaching and learning. That is why cleanliness is one of those things that we put very high.”

For CM4 there is a need to employ people who will be responsible for keeping their institution clean because *“at the moment we do not have really cleaners as part of the support staff.”*

“I would say we struggle a bit; this institution is not as clean as it should be”
(SM5).

SM6 reported:

“This campus is not that clean, maybe because we are not responsible for its maintenance. We are sharing, during the school holidays. At the weekends their people are using the hall for other things or other functions that include alcohol, and they leave things lying around. It’s just not clean, but the other campuses are better.”

- **Geographical location of the institution**

There was general agreement that the geographical situatedness of the learning institution influences students' decisions to study at a particular TVET College.

In the words of CM1:

The fact that we are located in the city makes people feel that this is the better place to be."

This statement suggested that the location of the TVET College campus in either the city or rural environment influences students' choice of enrolment for various reasons:

"It's one of those things that this institution is located in the city. Students prefer to go to the cities not necessarily to study but because they want to be away from their places of origin" (SM1).

"I think that students attend at this College because of its location in Polokwane that is in the city" (EM1).

For CM2 potential students are attracted to their institution in the first place by the fact that the College represents a stand-alone status in the sense of being the only TVET provisioning in a desolated area:

"Giyani Campus is situated in a very deep rural area, there are so many villages around it, and it is not competing with other Colleges, it is a stand-alone".

Sharing similar opinions was CM5 who remarked:

"The geographical location is the first factor in terms of rankings; there is a big distance in terms of the distances from the College to most places where students come from to here. It is in fact an opportunity for this Vhembe College to attract more students."

"It is because we are located in the city. Most of the students would prefer to go to cities and not really studying at their places of birth" (SM1).

"It can be that you know our campus is situated right in town in Polokwane, majority of students prefer this town. We have students from coming as far as Venda, Giyani, Malamulele and other places" (CL1).

CM6 acknowledge that they enrol students from both the semi-urban and rural backgrounds because they are located in a small town surrounded by desolated communities:

"The community that this College serves is divided into some different levels of economic capacity. We are serving predominately a rural community that prefer the campuses in town."

EM1 explained:

“We have much slower rate of registration at the campuses in the rural areas like Senwabarwana and Ramokgopa campuses, but definitely in Polokwane we do not have problems with filling up our spaces because of the town image of the campus.”

As EM4 stated with regard to the limitations that their students have regarding college choices:

“Our local students have got nowhere to go. They have little options to choose from. Those students at CN Phatudi whereby we know that mostly targeted the mines around Steelport, Burgersfort and Maruleng they are guaranteed that they know for sure that they will be employed in one of the mines. Exactly their aim is to go to the mines which have nothing to do with reputation of this College.”

Some other participants shared their views regarding what mainly attracted potential students to enrol at these institutions in the desolated environment pertaining to the fact of being the only option in a rural environment:

“The other area perhaps that could influence the students to be part of this college is the place where it is located, that is why all our students from the nearby villages can easily access this College” (EM5).

“I believe they attend at this College because they have limited options to choose other Colleges around here. This is the nearest TVET College for them to enrol in; else they have to travel very far” (EM2).

“I believe that these students enrolled at this College based of its location, that it is based in the rural area” (CL5).

- **Available student facilities**

Participants were well informed with regard to the available infrastructure and the conditions of the student facilities. CM1 acknowledged that the number of students far exceeds the student residence provided by their College which compel some students to seek accommodation in privately owned places:

“We have hostels, but we need more because we have many students staying in the private residence which is not always a good thing” (CM1).

For CM2 the Engineering studies workshops do not have the necessary resources: *“In the Engineering section we are struggling because of the workshops which are not fully equipped.”* With regard to accommodation, CM2 reported that *“there are no longer hostels”* with students arranging their own accommodation and with transport not being problematic as there are *“taxis and buses from the villages that always carry students in to the college and back to their homes.”*

Whether these TVET Colleges have adequate and sufficient student facilities is a moot point, participants highlighted their concerns about the different condition of available resources. In the words of CM3:

“The resources like the equipment, buildings and our classes are conducive for learning because they are fully air conditioned. It is just that we are busy working on our workshops so that they can be accredited”.

This justifies that there are basic student facilities for teaching and learning. Participants provided varying opinions on the condition of these resources and on the condition of the resources to be adequate and efficient or not. Participant CM4 explained that

“student hostels are not in a good condition at the moment, but we have got excellent workshops that are accredited”.

Participant CM6 explained their campus’s facilities to be adequate:

“We also accommodate students in the hostels, and the workshops that we have were recently built out of the DHET recapitalisation. Perhaps because we always try to invest on the workshops and equipment, the quality of the equipment which is there, we try to avoid let say putting the dynos type of equipment so that students can still link what we are offering with the modern world in which they leave. We also have the simulation centre at our business centre.”

CM5 acknowledged that they are simultaneously renovating the old infrastructure and developing the new facilities:

“In terms of academic facilities we are developing facilities, we have some of the laboratories, and the workshops although the workshops are outdated. We have to bring compliance with what is required by industry.”

Her views are echoed by several other participants who confirmed that, although there is always room for improvement, they provide a reasonable service with regard to the number and condition of their facilities:

SM1 acknowledged,

“Even though we are not 100%, so far we really have good infrastructure. Our classes are good even though we have some campuses that are still struggling, but I must indicate that management really prioritised the issue of infrastructure. We have accommodation, the hostels and we are doing well with accommodation in all aspects. The challenge with our accommodation is that we have fewer beds than students. We have 23 000 students but less than 900 beds. So, it is really bad, most of our students are staying outside the campus, but even though they

are staying off the campus we do a little bit of checking where they are staying by visiting those places.”

“When it comes to facilities, we have a serious challenge. Even the library around Giyani is very limited. It is a small library with limited information, what the students need they can’t access that information. No, we do not have student residences or hostels” (SM2).

SM3 asserted, *“We have limited facilities for our students like our workshops which are not fully resourced. We do not have libraries or student residences.”*

SM4 admitted that they have hostels, but these hostels *“are not in a good condition, but there are workshops that are accredited with different accreditation bodies”*.

With regard to the condition of workshop infrastructure, SM5 pointed out that their College’s *“infrastructure is still behind because our workshops are outdated”*. SM5 further explained that they do not have a canteen for the moment, *“we only have a structure which is roughly ready and our College does not have student residences, our students use the private residences outside the campuses” (SM5).*

With regard to facilities, EM1 shared information about *“the toilets for students are not in a good condition”* but that other facilities are better such as workshops and libraries albeit *“not fully stocked”*. They experienced shortages in their libraries with these shortages not only related to books, *“but also electronic materials”*. However, there were at least libraries at all the campuses *“and even student residences we have but they are not enough and also not satisfactory, but they are there”*. EM1 admitted that accommodation influenced student choices of colleges, *“that is why they come to the city because there are other accommodations available, not just the College accommodation”*. EM2 explained as follows:

“Our workshops in the Engineering are not fully equipped, although our students perform well. The safety and security are good; we do not experience crime that much here. We do not have students’ residence; students arrange for their own accommodation.”

EM4 pointed out that their libraries and computer labs are in a good condition, *“but not our hostels, but it is in the pipeline to upgrade these hostels.”*

Although EM6 believed that their workshop infrastructure is adequate, he had misgivings about the outdated status of equipment in these workshops:

“Our equipment is not modern equipment that we are expecting students to use in the workshops. We are now planning to move towards the modern instruments as such. The second thing is that accommodation is not our responsibility.”

With regard to the hospitality course provided at their College, SM6 confirmed that *“with hospitality we have a dedicated unit called the hotel school. This hotel school has all the required facilities including your rooms, kitchens and your restaurant in order for hospitality students to be successful in conducting their studies”*.

However, with regard to the Engineering fields, *“we do not have the state-of-the-art equipment and that is the field I think we are really not attracting more students”* (SM6).

The student support participants emphasised transport as an important aspect that influences student choice of College. It was clear that transport arrangements were in good order at all the Colleges. SM1 explained:

“We have a good relationship with our transport owners. After student registrations we make sure that we go to the local taxi ranks and communicate with local taxi owners and the bus industry to say that take note, we have students and we do not struggle with transport.”

SM2 opined the same message:

“The transport is not an issue because it is served by different hired transport services from different areas. So, our students have sufficient transport to take them from their homes to this College and back” (SM2).

SM3 asserted that *“the public transport is available on a daily basis,”* while SM4 explained that *“those students who are in need of transport are not that many. The majority of our students are either accommodated close to the campuses or if they need transport it is not that far and there are taxis and buses available”*. SM5 attributed seamless transport arrangements to *“the transport industry [that] makes it easier for students to reach us, maybe because this campus is situated near town”*. EM1 thanked the taxi industry for sufficient transport, namely *“I think the taxis are doing a good job,”* whereas EM2 also acknowledged the service of buses because *“there are taxis and buses transporting students from and to their homes”* with EM6 concurring that *“transport is not an issue, students are able to reach here before their classes start every day.”*

- **Employment opportunities**

There was general agreement among participants that employment opportunities for the qualifying graduates play a critical role in students' decisions to enrol at a specific College. In this regard CM4 explained that *“in the Groblersdal area there are not many employment possibilities, but there are entrepreneurship possibilities, whereas around CN Phatudi and Burgersfort area there are ample employment opportunities”* resulting in many enrolment applications. CM6 concurred with employment possibilities engendering staff enrolments because *“students come here looking at the prospects that there are high chances for them getting employment at the time they complete their studies”* (CM6) which, for EM1, is a reason students persevere with their studies, namely because of the possibility of *“jobs and money, people survive in the end so that they can get better jobs”*.

EM2 added the factor of exemplary students to work opportunities as motivation for students to enrol at specific Colleges in the sense that *“students who perform well and get employment become exemplary to the potential students”* which EM3 confirmed by pointing out that *“students got the message from those who studied here before.”* EM5 shared a different opinion related to their College's location resulting in students leaving the area once qualified *“because we do not have much industries, all the students that we trained when they finish their qualifications they go out of the region to go to Gauteng”* (EM5).

It was evident that with regard to the image and reputational aspects influencing student choice that it varied from one institution to the other. TVET Colleges are at different stages of development mainly because of their geographical location and their historical differential access to resources and therefore they require different levels of intervention and support to achieve optimal functionality.

6.4.2 Theme 2: the institutional communication sources used in recruiting applicants at TVET College institutions.

Regarding institutional communication sources influencing the management student recruitment, retention and success in the TVET College education, the following two sub-themes emerged from the data collected, namely the institutional image information sources influencing the management student choice to enrol at a specific TVET College, and the specific informational image sources used to attract potential applicants to TVET Colleges (**Part B** of the questionnaire – **Appendix J**).

6.4.2.1 **Sub-theme 1:** Institutional image information sources influencing potential students to enrol at specific TVET Colleges.

Participants responded to the following question:

What is your opinion on institutional image information sources influencing prospective students' choices to enrol at a specific TVET College?

With the exception of two participants, and one who appeared uncertain, all participants agreed that some institutional image information sources influence prospective students' choices of TVET College enrolment. Participants cited aspects such as a good rapport with the media through the marketing department, creating an awareness of the College, and the relevancy of the courses that are being offered. Participants also attributed student choice to the fact that prospective students are influenced by students who graduated from the TVET College previously, the limited number of TVET Colleges around their vicinity to choose from, and that students get work opportunities after completing their studies. In this regard, EM3 pointed out that

“there are a number of factors of which an important - one is that these students come here at this college since they have little options. This is the only campus here. Maybe it is popular at the same time.”

6.4.2.2 **Sub-theme 2:** the main informational image sources used when recruiting and selecting potential students to TVET Colleges (**Part B** of the questionnaire – **Appendix J**)

It was generally agreed and acknowledged that the TVET Colleges utilize various media in recruiting potential applicants to enrol, but available resources play an important role in determining the marketing tools. Participants evaluated the informational image information sources used to attract potential applicants by responding to the following question:

“What are the main informational images sources attracting prospective applicants to enrol at a specific TVET College?”

With reference to the responses from participants, the main informational image sources used to attract potential applicants to enrol at a specific TVET College related to aspects such as advertisements through radio stations, different print and electronic media, word of mouth, career guidance and open day events.

- **Advertisement through radio stations**

Generally, all participants attested that their institutions utilize radio stations as the main informational image source to attract prospective students. It was noted, however, that these institutions do not advertise through television stations.

Related to the comments made by CM1 on the fact that her institution predominantly uses the radio station when communicating with various stakeholders, CM4 also attested to the view that the radio stations play the main role in influencing prospective students. In the words of CM4: *“Radio stations play a huge role, apart from exhibitions at different places, but yes we mostly prefer radio stations.”* For CM2 their marketing department reach their targeted student population through radio stations and not the television stations because *“usually the department uses different radio stations as the way in which we are able to reach the targeted populations. We do not use TV at all.”*

These views were acknowledged by other participants who also indicated that their institutions use the marketing departments to recruit prospective students through radio stations and newspapers but not television stations. In this regard CM3 acknowledged that *“we mostly use the local radio station and newspapers to inform the public about the activities at this College”* with CM4 pointing out that *“we are not using TV”* and CM6 explaining by naming the radio stations they employ: *“we market on radio stations such Phalaphala, Ndhzelele FM local radio stations, not TV.”*

CM6 also explained the time of year to advertise over the radio, namely *“especially at the high times when maybe we are to go into registration. Like one semester to the other, one trimester to the other.”*

For SM2 their College’s first priority is to reach certain villages through local radio stations but it is their wish to include TV stations as part of their recruitment mechanisms. SM2 explained:

“We send out the information to our local radio stations as we target those villages. For now, we do not have the options for advertising through the TV. That is something that we wish to have because those are some of the things that can assist to advertise the College.”

Although these institutions also use the local newspapers in promoting their programmes, the student support services managers shared the same views as SM3 who commented that their marketing team sends their advertisements through the radio station as opposed to the use of a TV broadcast. In concurrence with SM4 who indicated that their institution involves the radio station around them which plays an important role, and not TV, SM5 concurred that they *“normally use the radio stations within the province, but no TV nor magazines.”* Similarly, SM6 emphasized that their College relies on the local radio station when recruiting prospective students, namely *“the radio advertises; we do not involve TV when recruiting them.”*

The TVETMIS Managers and the lecturers were well informed with regard to the utilisation of the radio stations as their institutional image information sources. These participants provided names of some of their local radio stations and also confirmed that their institutions do not involve the TV stations as they recruit students.

EM1 explained that they do not involve TV broadcasts but they send out most of their promotion information through the radio station by involving *“a lot of information regarding recruitment on radio when registration is opened, never TV”* (EM1) which EM6 confirmed by emphasising that they *“place some adverts on the radio stations more especially for registration purposes, but we cannot afford the TV adverts.”*

EM2 concurred that their marketing team uses the local radio stations or private radio stations to inform prospective students about the latest news, especially registrations, whereas CL2 named some of the radio stations they approach for marketing purposes, namely *“Mhala, Giyani, DCR, Sekusese, and Munghana to reach out to our targeted group”*. In this regard SM1 named the radio station they employ for advertising purposes, namely *“our local radio stations, Capricorn and Energy FM. These are mainly the community radio stations which we use.”*

- **Different print and electronic media**

Media plays a vital role in the recruitment environment particularly when organisations compete for the same market. During every registration cycle TVET Colleges are expected to recruit and enrol a certain number of students in order to achieve their annual enrolment targets. Participants were well informed about different media used when recruiting students. CM1 pointed out that activities that take place at their TVET College are published through different media platforms with success stories and other events sent out via print and electronic media. CM1 explained as follows:

“Whatever happens and the achievements at this institution are sent out through the media. Students also have other options of using their cell phones like when they get messages they send it through the SMS about what this College is all about before they register.”

CM2 explained however that their institution no longer uses printed material as they previously did to recruit students, but *“this time around we rely much on other media materials”* which CM4 concurred with namely that they do not use the following marketing documents any longer: *“flyers, brochures, the prospectus, newsletters, they do not go out any longer.”*

Similar to the comment by CM5 regarding the use of catalogues, CM6 also admitted that their College still makes use of printed material in that the marketing personnel, *“as they go to schools they have some printed documentations like brochures and what I call ‘flash’ what is actually called pamphlets.”*

These statements summarise the fact that printed materials like newspapers, brochures and prospectuses are still used to recruit prospective students. In this regard SM1 singled out the Observer as one of their local newspapers that is being regularly used for all kinds of communication and that, to convey important messages, they rely on *“the Observer which is the local newspaper”*.

Related to comments made by SM1 on the local newspaper being utilized for recruiting prospective students, SM3 confirmed that their institution also subscribes to the local newspaper and uses this newspaper as a marketing tool *“and we visit the local schools to distribute the newspaper with information on our College”*. With regard to the kind of information on the College in the newspaper, EM1 explained that *“the marketing department provides information for publication on all activities taking place here which are published in our newsletter and local newspapers.”*

According to EM6, a combination of both print and electronic advertisement platforms are used to market their institution and they both play an important role in the recruitment of prospective students. In this regard EM6 stated that they *“are using options from the websites, college newspaper to friends and also printed documentations like brochures and pamphlets”*.

There was general agreement among participants that marketing teams at their TVET Colleges utilise different media platforms other than the newspapers. SM4 acknowledged that, apart from radio stations, their marketing section uses other printed and electronic materials such that they *“also distribute a prospectus and newsletters and they use social media like LinkedIn, Twitter, and Facebook, to talk to each other and to prospective students”* (SM4). CL2 emphasised the distribution of various prepared promotional materials during their visits to nearby schools, and other areas which SM6 explained as *“the issuing out of pamphlets and placements of posters across streets in and around towns. You will find those adverts on the lights poles.”* CL4 emphasised that their institution prioritises the use of flyers as *“important sources of marketing when they visit schools throughout the year”*. This marketing approach was explained by CL5 as *“driving the College vehicles around the local communities and distribute the College prospectus and flyers to inform stakeholders about the different programmes offered at this College.”* CL6 proclaimed that their College’s marketing activities are carried out through print and digital media space by using *“College pamphlets and digital advertisements”*.

Different to Colleges using printed media for advertising purposes, others as reported by SM3 do not use printed media any longer: *“we had at one stage used the printed pamphlets.”* The same situation prevailed at the College of SM5 where they *“do not use magazines”* (SM5). Concurring with EM2 that their institution does not use printed material such as pamphlets any longer, EM4 admitted as follows: *“Unfortunately we do not use brochures, prospectus or newsletters for recruiting prospective students.”*

- **Word of mouth**

Participants shared their opinions with regard to how they considered word of mouth as one of the main informational image sources used in recruiting students to enrol at TVET Colleges. Their differing views include using various gadgets as well as one-on-one discussions with the targeted audience.

What became apparent during the interviews is that the TVET Colleges continuously engage the high schools in many different ways by means of face-to-face discussions. CM6 emphasised that the greater part of how their College attracts prospective students is through discussing the programme offerings face-to-face with feeder schools and the learners of those feeder schools. CM6 shared his views as follows:

“We identify potential schools that can become our feeders and visit those schools for career guidance and exhibitions. Secondly, one thing that is more impactful is when students have an opportunity to visit this institution and discuss with us what they want or not, so that they are able to make the correct decisions.”

CM2 acknowledged that word of mouth has an impact on attracting prospective students to the TVET College institutions. Their institution also relies on word of mouth wherein marketing officials address the high school learners during school visits. In support of the views that word of mouth plays an important role in the recruitment of students as supported by SM3, EM2 remarked that they *“reach the targeted students through word of mouth as well as discussions with the high schools about our courses.”* SM2 explained that they visit the schools which are within the circuits around them so as *“to give them a talk about Colleges, and make sure that we give them our prospectus to go through them, we also invite these schools to come to our campus and take them through the workshops”* (SM2). SM3 concurred that they *“visit local high schools to promote all the programmes offered here.”*

Word of mouth is one of the most efficient and cost-effective methods of explaining programme offerings to prospective students. With the interviews there was a shared sentiment that marketing teams easily explain the content of the promotional materials during their school visits. In this regard SM3 emphasised the effectiveness of reaching the targeted group of prospective students *“through word of mouth when we visit the schools to discuss the courses that we offer”* with which SM5 concurred by explaining that *“normally the team informs people about the programmes that we offer as they visit the nearby schools.”*

Participants also shared similar sentiments with regard to taking advantage of any available opportunity to market the College programmes during various community gatherings. For CL5 their TVET College officials inform stakeholders about the programmes they offer any time they get an opportunity.

In the words of CL5: *“We personally inform potential students about the different courses at this College. Related to this face-to-face communication, participants also pointed out that they “use word of mouth during visits to the local chiefs, churches, and local high schools” (EM5). CL3 concurred that “yes, we use word of mouth to inform the public about the programmes offered here.”* Similarly, SM2 admitted: *“Yes, where the youth is going to be, there we make sure that we visit them, try to request for a slot, just to give them information.”*

6.4.3 Theme 3: Main effective aspects influencing student persistence and academic performance at a TVET College institution.

Regarding the main effective aspects that influence student persistence and academic performance at a TVET College, significant types of external (outside classroom) factors that encourage students to remain studying at the specific TVET College until completing their qualification, and the main factors within the campus but outside the classroom that increase the management student retention and success at TVET Colleges were explored as the sub-themes from the data collected. Participants evaluated the main aspects influencing student persistence and academic performance at their TVET Colleges by responding to different questions.

6.4.3.1 **Sub-theme 1:** External factors (outside the classroom) that encourage student retention and success at TVET College institutions.

External factors outside the classroom that encourage students to remain studying at the specific TVET College until completing their qualifications included extracurricular activities and being influenced by persons who have studied similar courses at the specific TVET College.

Participants responded to the question, namely what the external factors are that encourage students to remain studying at the specific TVET College until completing their qualifications. Their responses related to the influence of extracurricular activities and previous students' encouragements.

- **Extracurricular activities**

Despite general agreement among participants that their TVET Colleges provide extracurricular activities, they had differing opinions with regard to the level of student participation and the type of activities considered as the best examples of activities encouraging students to remain studying at the TVET College until completing their qualifications.

With exception of four participants who had differing views, there was general agreement that students actively participate in different extramural activities and compete for their campuses up to national competition levels. SM1 outlined how their students involve themselves in various extramural activities and how their student support services to promote capacity among the students.

SM1 responded as follows:

"I would say that students are very active in sport, especially students who are staying in our hostels. I think the main thing is that they have some sporting activities at their campus. We encourage them to make sure that they take part in these extra mural activities. Their participation goes to a level where you find that the hostel students compete with the day students of the same campus."

CL1 echoed similar sentiments as she commented: "

I think the main factor is that they play different sporting activities at the campus. We encourage them to form part of this College by participating in different extra mural activities. You know there are times where the day students compete with those who reside in the hostels and compete among the campuses."

EM1 also confirmed that students from their College, especially the students staying in hostels, compete among themselves:

“Especially students who are staying in the hostels. The preparations go to a level where students residing at the hostel compete with those students who reside outside the campus. We encourage them to participate in these extra mural activities.”

SM1 recommended the fusing of extramural activities with the curriculum in the sense that *extracurricular activities must be integrated into the teaching and learning on a daily basis.*”

Related to the comments made by SM1 on their involvement in the extramural curricula, SM6 as part of the SSS officials assigned to extracurricular activity management explained how their institution prepares their students for vibrant student life participation:

“I am the extramural coordinator of this College. We are offering productive social programmes which offer students the opportunity to participate in the athletics competitions, arts and culture and other games. We normally start in the beginning of the year from the campus level, proceed to the College where all campuses compete, and then proceed to the Provincial level to compete with all other TVET Colleges, six TVETs, and finally National competitions.”

For CM4 their TVET College performs well on different sporting codes wherein students participate from their campuses through to the provincial level until final competitions at national level. CM4 commented as follows:

“We are very good at extracurricular activities. We have extramural activities like debate, dance classes and playing soccer. We also participate in the Provincial and National competitions and yes we have students who are number one nationally.”

Agreeing with these statements CM6 remarked: *“We participate in almost all the sporting codes available in this province and we are doing well.”* In line with CM4’s views, other participants shared similar sentiments such as CM1 confirming that *“our students are quite active when it comes to sport. Sometimes they have their competitions among themselves in their hostels”* and CM5 adding the yearly beauty contest event as a popular extracurricular activity, namely *“our students actively participate in extracurricular activities, beauty contests also.”*

It was clear that the selected TVET Colleges considered extramural activities and cultural activities, namely sport and culture events, as part of the factors outside the classroom that encourage students to remain studying at TVET Colleges until completing their qualifications. Participants commented on the level of their students’ competing abilities and on the kind of activities that they partake in. For SM4 their institution performs well in various extramural activities up to provincial and national level as their students *“are really good in sporting codes such as soccer, netball, and debate”*. These activities concur with the activities pointed out by other TVET College participants. EM2, for

example, concurred with these activities, but also included traditional games as extracurricular activities:

“The SSS unit motivates students to participate in different sports while studying here. These include participating in soccer, netball, athletics, and cultural activities like choir and other traditional games.”

CL6 acknowledged that they:

“...have motivating factors such as soccer, table tennis, chess, and also these traditional games. You know our students are just coming from the Eastern Cape last month wherein they were participating on those games which encourage them a lot.”

The significance of external factors encouraging students to remain studying at TVET Colleges until completing their qualifications was confirmed by SM5 who pointed out that

“keeping them engaged in various sporting activities will stimulate their desire to remain here, for male students we have the soccer teams and we have just introduced debates and drama which we previously did not have.”

EM3 acknowledged that their institution encourages students to participate in numerous sporting codes which are offered by the College; however, student performance in these activities remains unimpressive as confirmed by SM3, namely that they *“participate in various extramural activities such as soccer, athletics, choral music and stuff like that but we are not that good. We are trying to a certain extent, but they are not that good.”* CM2 attributed the late introduction of some extramural activities as the reason for students’ poor performance in these activities because *“some of the activities started this year, like debate, and drama which we did not have previously, so I think it is still early days for these activities”* and for these activities to contribute to student retention and success with their academic endeavour. SM2 also acknowledged that, although their institution participates in different extramural activities, they are not performing as expected in the sense that *“students participate in different sporting codes, and in art and cultural activities, although we are not that good”* (SM2).

Participants raised certain areas of concern relating to a lack of infrastructure for which, if countered, could improve their students’ performance in sports. EM6 distinguished lack of sport fields on some of their campuses as hampering the smooth running of the inter-campus competitions when preparing for the provincial and national competitions. However, regardless of limited infrastructure, their students still participate on the highest level in particular sport codes at some sites. In the words of EM6:

“Students are very active when it comes to extramural activities at this College. The main challenge is that we do not have the sport fields at other campuses. So, we have to travel, the students travel when we have inter-campus competitions where we compete in debates, sports and all kinds of activities with one another.”

Similar sentiments regarding infrastructure constraints were shared by CL3 who remarked:

“the problem is that we lack proper facilities, the challenge is the budget that is problematic. They still like to participate in different sporting codes, but the constraint is the budget.”

Related to the comments by CL3 and EM6 with regard to the shortage of basic sporting facilities, CL5 admitted that they have a similar problem, but that they do what they can with what they have.

In CL5’s own words:

“Basically we do not even have sports fields within this campus, but as for extramural activities I would say that our College is doing its best. Our sporting team participates both in the provincial and national competition, and they are doing well there.”

It was clear that prospective students consider extracurricular activities such as debate, drama, music, and different kinds of sports codes as an important factor enhancing their quality of life and motivating and encouraging them to persevere with their studies until successful completion.

- **Influenced by persons who have studied similar courses**

Some participants asserted that the influence of students who previously studied at the TVET College serves as a significant factor to encourage them to remain studying at the TVET Colleges until completing their qualifications.

CM6 distinguished students who are committed while studying at their TVET Colleges and eventually obtaining their academic goals influencing employment offers and at the same time motivating prospective students to follow a similar approach. In his own words CM6 explained:

“Some students who displayed their good commitment have already picked up opportunities for employment during the time they were still students. And when they come to the end of their studies they easily grab those job opportunities. We also have a good record of our students who did very well previously while studying at this College and they are already in employment. So, students come here looking at the prospects that there are high chances for them in getting employment at the time they complete their studies if they remain focused on their studies like previous students did.”

Related to the influence by exemplary persons, CM3 confirmed that family members and friends use former students employed at different industries to encourage prospective students to enrol at the specific TVET College. As CM3 remarked:

“There are family members who encourage their children to come and enrol here especially in the engineering fields. We have students whom their brothers and sisters graduated directly from this College and then work at the Eskom stations around here.”

Concurring with these opinions CM5 acknowledged employment security based on focused performance in that *“Yes, we have got students that are surely-surely guaranteed for employment that will be offered at a certain stage because they come, they focus, they go.”*

In line with comments made by EM1 on friends and family members influencing students to enrol at the specific TVET College, other participants concurring with this view emphasised the power of word of mouth sentiments encouraging enrolment decisions. In this regard EM2 pointed out that *“some hear from friends and parents who previously studied at this TVET College”* which, representing word of mouth, results in *“students are influenced to study here, they learn from those who studied here previously”* (EM5), confirming encouragement by *“students who studied here previously”* (CL4).

EM3 included the influence of certain courses to the influence of students who previously studied at the specific TVET Colleges as a significant factor encouraging students to remain studying at the TVET Colleges until completing their qualifications. These courses related to the offerings of accredited skills programmes representing *“relevant courses in business studies and engineering studies, people got employment because of the accredited short programmes that we offer”* (EM3). For CM2 their TVET College is popular to employers and prospective students because of its good results in business studies subjects and to a lesser degree in engineering studies tuition during the previous years. *“Students’ performance especially in the Business Studies has been very well over the past years until today”* (CM2).

SM2 advised that TVET Colleges need to regularly involve former students to share their work experiences with the current students as she commented: *“We need to invite people who previously studied here to come during our open days to say I am Mr so and so owning this or that because of the TVET education.”* In this regard SM1 confirmed that their institution invites their former students who are employed to come and inspire the new students and share with them their experiences. As SM1 explained:

“We do have the good records of our students who did very well previously, and who are already in employment. We invite them to come and inspire the new students and share with them their experiences.”

There was general agreement that the type of courses offered that are relevantly linked to employment possibilities and the success rate of students enrolled for those courses encourage students to enrol at the specific TVET Colleges. In this regard EM1 emphasised that they have *“very good programmes which might influence students to enrol here, students select and enrol for programmes which provided opportunities for getting a job in the end.”* EM2 concurred that students who are academically successful at their institutions are employed and they then become a motivational factor to other students because *“students who perform well and get employment become exemplary to the potential students.”* However, EM3 indicated that there are students who enrol at TVET Colleges for reasons other than employment relating to obtaining free bursaries and having no other choice than to enrol at the TVET College as the only study option. EM3 proclaimed as follows: *“I can say that regarding external factors there’s a lack of potential employers around here. Students come here for different reasons such as those who were told about free bursaries and others who failed their grade twelve.”*

EM5 distinguished academic results at school as an external factor influencing student retention and success with TVET College training in that *some of the programmes that are being offered here produce very good certification, success, and throughput rates, but some of the programmes are not achieving certain targets as planned because of school performance”* (EM5). Concurring with this statements EM6 admitted that their *“academic performance, the pass rate, attract these students from different place and different abilities, the certification rate has dropped.”*

Another external factor considered to be encouraging students to remain studying at the TVET College until completing their qualifications is the work-based exposure (WBE) opportunities they enjoy. CL2 confirmed that WBE attracts students to enrol at their Colleges and encourage these students to persist with their studies. CL2 explained:

“After coming back from the WBE you will see students being happy since they experienced what they learnt inside the classrooms. It is one the factors that encouraged them. But with that one of WBE I saw my students showing each other.”

It is clear that apart from extracurricular activities such as debate, drama, music and sports, prospective students are encouraged to enrol at specific TVET Colleges based on the influence by persons who have studied similar courses previously and based on the nature of course offerings

providing for potential employment opportunities and exposing students to work conditions through WBE opportunities.

6.4.4 Theme 4: the main student support services aspects that either initially and continuously motivate or hinder the management of student retention and success at the TVET College institutions.

Regarding the main student support services aspects that either initially and continuously motivate or hinder the management of student retention and success at the TVET College institutions two sub-themes formulated were separated when collecting data through interviewing. These sub-themes are the main student support services aspects that initially either motivate or inhibit student retention and success; and the main student support services aspects that continuously either motivate or hinder student retention and success at the TVET College institutions.

6.4.4.1 Sub-theme 1: main student support services aspects that initially either motivate or inhibit student retention and success at TVET College institutions (**Part D1** of the questionnaire – **Appendix J**)

With reference to the main student support services aspects that initially either motivate or inhibit student retention and success in the TVET College institutions, participants responded to the following question, namely what are the main student support services aspects that initially either motivate or hinder student retention and success in the TVET College institutions.

The main aspects that influence student persistence and academic performance at TVET Colleges included student orientation in the form of an induction programme, career guidance and open day events, the provisioning of a bridging programme, faculty and staff approachability, academic support service initiatives, and partnerships with employers.

- **Student orientation through induction programmes**

The importance of familiarising newly enrolled students contextualised by means of student induction programmes at TVET Colleges was raised by many participants. Participants aired their differing opinions regarding the influence of student induction programmes to support academic persistence

and success at TVET Colleges. Their views included comments on how student orientation in the form of induction programmes are structured, who is involved, who is responsible for the management of the programmes, and the influence of these programmes on preparing students for the TVET College system and for TVET College training.

It was clear from the interviews that some institutions scheduled student orientation and induction programmes for one day only whereas other institutions administer these programmes over a three-week period which resulted in differing outcomes regarding assisting students to be prepared for TVET College education.

CM1 explained that their College's student induction period lasted for three weeks whereas CM4 said that they *"have a three-day period for student induction, but these students do not really attend this induction"*. For SM1 their TVET College administers an effective induction programme for one week: *"Our student orientation is effective because our student induction is scheduled for the whole week."* These views were supported by CL1 who confirmed that they also *"have student orientation and induction that is working in this College because it is scheduled for a whole week."*

Contrary to these views on effective student orientation by means of an induction programme lasting for a convincing period of time, other participants opined that their student induction was not as effective as it should have been and that students do not attend these initiatives. SM4 reported that their *"student induction programme lasts for three days only, students' attendance is very poor, only few students attend (SM4)*. EM4 concurred with this opinion by commenting that their *"student induction programme is for a short period since it is scheduled for three days only, students do not attend our student induction, in most cases just few new students attend."* CL4 also emphasised poor attendance as a concern because their *"student induction is done for three days only; but only few students attend this important part of the student support programme."*

CM2 acknowledged that their student induction programme which is organised by the student support unit with the involvement of other stakeholders is effective because of the comprehensiveness of the programme addressing many different capacity building know-hows. In this regard CM2 explained as follows:

We show these students what is required from them in terms of their behaviour, their conduct and what we need to see from the students and what the students also would start practicing as from day one up until their last day. Since all the relevant sections were involved to say what they need the students from different sections know what to do. So, I think it plays a major role in terms of conduct and behaviour of students and success."

CM3 agreed on the importance of induction programmes for beginner students and the importance of continuous refinement of the programme because “*student induction influences these students to a certain point, there is a need to close all the discrepancies.*” For CM6 the most important contribution of an induction programme for beginner students is fostering alertness to what TVET College studies entail. CM6 aired his views as follows:

“The student induction activities make an impact in terms of creating awareness because I believe that the majority of people out there do not understand how the TVET environment works. And, unfortunately, it is only those students who are actually registered who have the chance to be told how this terrain looks like. They start to become aware of what is expected of them during this induction” (CM6).

CL2 also acknowledged the need for continuous improvement of a very important induction programme for students: “*Student induction assists our students, although it may not be perfect, but those who attend have a better understanding of this environment. It must be improved here and there for it to be more interesting to all students.*” These sentiments were shared by SM1 who remarked that their “*student orientation and induction is good; it is effective because we make sure that we do not only focus on the programmes that we offer but on many aspects of student life*”. The meaningfulness of induction programmes is increased by inviting representatives from work environments to address students during orientation “*so that these students can feel the reality of what we are talking about, so when they engage with these people they know that ok, from here definitely we know that we going straight to world of work*” (SM1). Although these addresses by representatives from the work environment are focused on “*the new students, we invite all students, but you find that at times students do not come, they do not understand that it is compulsory for them to attend.*” With regard to who must attend these induction programmes, who is responsible for providing this programme, and what must be addressed, SM3 concurred with the general opinion shared by all participants, namely that:

“Student induction is important for all students especially the newly enrolled students, it is done by the SSS department, which invites all heads of different sections and other officials within this College. It helps students to know about all important information about their roles and responsibilities as they are provided with students’ rules, their code of conduct and important dates on the calendar”.

CM4 acknowledged that her institution is concerned about students who are not aware of the code of conduct for students provided during student induction since they do not attend scheduled student induction programme events. Their TVET College intends to make this programme attractive so that all targeted groups of students attend. CM4 explained:

“Students do not really attend this induction this is why now we are going to try and make it more interesting to them so that they can come and attend. This is where they have to sign for

the code of conduct documents received during induction. It seems that they do not read these documents because most of the time when there is a meeting and the students are angry they say that they were never informed about these codes of conduct documents, whereas they did not attend the induction.”

SM4 also admitted the problem of poor attendance whereby students fail to obtain very important information on all aspects of College life in that “*only a few students attend and receive the necessary documents concerning student matters like the code of conduct and others.*”

With regard to the effectiveness of student induction programmes to prepare students for TVET College engagement, participants shared the same opinion on the positive contribution of these programmes. CM5 stated that their “*student induction and orientation influence student retention to a certain point. It does assist because the basic policy issues are discussed during this student induction*”. However, for SM2 this induction programme works for some students and not for others because it is mainly focused on new entrants and because of its delayed timing. SM2 opined as follows:

“Student induction and orientation is only for the new students, for the senior students or the returning students, we only call them may be when there is something which is burning, but most of the time we only induct new students and at times you find that these new students have already been in the College for a week, the timeframes of the registration and the induction are contradicting each other.”

CL6 refuted the views that student induction is effective based on the limited time period of presenting this programme which he anticipates being extended over a longer time period in order to prepare completely unprepared students more effectively. CL6 argued as follows:

“Our student orientation and induction is not that effective because students need to be guided for a longer period. By taking three days I do not think it is enough for them to be guided, because you find that some of them they just come and without knowing what is going to happen here. Some of these students were referred to enrol here or they are tired of staying at home and then decided to come here. It is very difficult for them. That is why these students need to be orientated for a longer period”.

- **Career guidance and open day events**

Participants shared similar sentiments regarding career guidance and college open days being important factors in recruiting and selecting students to enrol at TVET Colleges. TVET College officials are involved during career guidance, exhibitions and open days.

For CM4 their institution provides adequate career guidance and exhibitions that assist students in choosing a relevant TVET College and suitable courses to enrol for. CM1 acknowledged that at the

beginning of the year when the marketing team promotes her TVET College, they provide potential students with information concerning what their institution is all about. She pointed out that her College's career guidance starts at school already when the marketing team visits schools and introduces learners to possible after-school study decisions. CM1 shared her opinions:

“Actually it starts at schools when the marketing team promote this College whereby this team would give them career guidance so that they know what they want to do when they come to us. For instance, we do have students say for instance who wants to study Finance let us say, but only to find that this course is full. They just do anything else just for sake of being here, although we try and limit that by encouraging them to do what they want to do and what they are capable of doing”.

CM1 also acknowledged that the career guidance offered by the marketing team as they promote their institution needs to be improved because *“our career guidance is only effective to a certain extent; it can be improved because when students come here there are those who still do not know.”*

EM6 concurred that their College's career guidance is starting to bear fruit because *“we appointed interns to assist with career guidance although it needs some improvements.”* CM2 explained that they capacitate students with regard to aligning expectations and reality by *“we show these students what is required from them so that their expectations are brought to the students to a level where they know what it is that is expected of them.”* EM4 explained that a career guidance officer assists in the placement of students for practical work exposure which is a benefit *“because we never had this career guidance officer before. It is now the career guidance officer who places students at different companies”*. With regard to open day events, EM5 confirmed that their team offered career guidance and exhibitions during open day events which yielded positive results as reflected by students selecting their institution to enrol with. Other participants attested to these actions, namely that *“career guidance and exhibitions play a huge role”* (CM4), and *“this career guidance and exhibitions promote TVET College enrolment”* (CL4) involving *“schools during the career exhibitions and open days”* (SM3). For CM6 there is a need to educate the public about the provisioning of TVET College offerings because, as explained by CM6,

“my view has always been that there is little or a lack of awareness on what the TVET environment is all about. We need to have feeders that are ready for this environment”.

- **Provisioning of bridging programmes**

It was asserted during the interviews that TVET Colleges do not offer foundational courses that prepare new students to seamlessly persist and succeed at TVET Colleges. What became apparent

during the interviews was that there were inconsistencies with regard to the provision of preparatory courses for students who do not meet the entry requirements for TVET College training.

CM4 remarked that their TVET College can accommodate only a limited number of Grade 12 students who meet the institution's minimum entry requirements out of a large number of applicants. Based on this supply of possible enrolments, their institution does not see any need to offer foundational courses since they consider only those who have obtained a Grade 12 certificate. As CM4 explained:

"We do not have a bridging programme at this College specifically in NATED programmes. We only enrol Grade 12 in Engineering and Business studies, and not the Grade 9s, 10s or 11s. We have too many students than what we can accommodate, so we only take Grade 12s."

The lack of a bridging programme at their College was confirmed by SM3, namely "*no, there is no bridging programme for those kind of students*" and by SM5, "*no we do not have bridging programmes*" and EM1, "*we do not offer any bridging course.*"

CM5 acknowledged that as much as their institution receives ample applications every year negating the need for any additional courses in preparation for TVET College training, such programmes should be meaningful for students with potential but who never had the chance for self-realisation. In the words of CM5: "*We do not have any bridging programme to cater for those who do not have the minimum entry requirements, we need such bridging courses; I think this is fair.*" CL6 also acknowledged that *there is a need for a pre-college and college entrance programme* to assist students with potential. CM6 explained that, although their institution does not offer any bridging courses, it is important to reconsider because they had bridging courses in the past which did not last, but "*as we see it is coming back again with the initiative from the Department in terms of the Pre-Vocational Learning Programme (PLP), I think it needs to be implemented, it can make an impact on students who have some learning gaps.*" Considering, however, that TVET Colleges do enrol students who are not ready for TVET College studies and without providing bridging courses, SM2 emphasised that they counter this situation by the fact that they "*offer extra classes, these extra classes start after normal teaching hours and we call them remedial classes. The remedial classes assist students who may be not coping in their classes.*"

- **Faculty and staff approachability**

Participants agreed that the working relationship with students within their institutions is of acceptable standard and it is one of the main student support services that initially influences student retention and success at TVET Colleges. In this regard SM2 confirmed that there are lecturers who are approachable with some being less approachable. SM2 explained her views as follows:

“At times these employees are friendly; but sometimes there is a distance between these departments and students at this institution. You may find that when students need assistance, there are employees who by ten o’clock they lock their offices and go for their tea break until eleven o’clock. So when these students come for assistance they have no access to these officials. Then they start to notice that these employees are not here to assist them. But other than that the working relationship is there. Generally, the working relationship is fine.”

For SM1 there is a healthy relationship between students and staff due to the fact that both lecturing staff and administrative personnel communicate with students in a clear and approachable manner. SM1 explained:

“Both the admin staff and academic staff are involved, we do not have challenges with relationships between staff and students, students know exactly what is expected from their side like going to the lecturer for advice on registration.”

Similar sentiments were aired by EM1 who concurred that working relationship at his College is effective as *“both admin staff and academic staff assist students without hassles”*.

There was general agreement about the amicable trust and good working relationship between the College employees and students with students knowing that they must make appointments in advance to discuss a matter with College staff. In this regard participants echoed that *“the working relationship between staff and students is good, and our officials are easily accessible”* (CM3), *“our employees are easily accessible and work well with the majority of these students”* (CM4), and *“our students work well with us at all the times, they are free to access all sections”* (CM5). To avoid disappointments, participants emphasised the importance of making arrangements before queuing for assistance. For instance, CM6 proclaimed that their sections are accessible to students who follow the proper channels as he remarked, *“students easily access our departments through the proper channels”* which CM2 concurred with, namely that *“students are allowed access to all sections or departments, they must first make appointments to avoid disappointment in case these guys are busy.”*

It was clear from the interviews that the healthy working relationships with students were also maintained with employers and the world of work in that EM4 proclaimed that their institution

receives feedback from employers regarding students at their work places and the relevancy of the programmes being offered by the TVET College. EM4 commented:

“The relationship between College employees and students is good. Also, there are employers who provide us with feedback about our programmes and students graduated from our institutions. Their feedback is good.”

- **Academic support initiatives**

With the interviews, participants gave their views on the need for and appropriateness of academic support services provided to students. Participants aired their opinions on how and why they considered academic support initiatives important for ensuring student retention and success at TVET Colleges.

With reference to the offering of extra lessons during the normal working hours because time tables are fully packed, participants concurred that they offer extra classes as part of academic support initiatives initially supporting students to persevere with their studies. CM1 shared her opinions as follows:

“Unfortunately we are fully packed, so we do not actually have that additional hour that we can do additional classes. But we do it on Saturdays, sometimes we use Saturdays when people need extra time. Yes, our staff members are always available for these students.”

Similar views were shared by CM2, “Yes, we have afternoon classes, but not evening or Saturday classes”. CM6 said, “Yes, we offer extra classes to assist those who are not coping during their tuition times” and SM1 claimed, “At this College we offer extra classes which we call remedial classes.” EM2 explained that “the SSS section organises these extra classes offered in the afternoons” and that they also offer a tutoring programme to support the remedial classes.

SM5 explained how and why their institution administers academic support programmes. The how relates to “identify those students who are struggling in different subjects. We made provision for identifying tutoring so that they can get extra classes through tutoring”. With regard to the why, SM5 explained that they must make provision for students who seem to be more knowledgeable to assist those who are not coping in class to assist them with their studies in a more manageable and structured way. For CM5 their institution considers and provides extra classes as part of student support services to increase student retention and success. Their TVET College has noted that these academic support initiatives are costly hence they intend to reconsider the implementation of the programme based on a more cost-effective approach.

CM5 shared her views on the what, why and how of student support as follows:

“We offer extra classes to supplement the time lost and for those who struggle during the normal teaching times. The extra classes are for those who are in need of academic support. These classes are usually from half past two because the normal curriculum hours are between half past seven and half past two, the extra classes start from half past two to half past five for those particular subjects wherein students failed. For instance, you find that a student only passed six subjects or less out of the total number of subjects enrolled for. So, they just take one or more subjects in the afternoon as part of the remedial work because we want it to improve our throughput rate.”

CM5 acknowledged, however, that their main concern regarding the provisioning of the extra classes is rewarding the same employees since their TVET College involves the same lecturers to facilitate both the morning and extra classes. The argument is that lecturers should, in the first place, ensure their students pass, which seems normal in a normal dispensation. CM5 explained:

“It is an overtime benefit for lecturers but in the long run we are going to re-structure these things, this is like when you pay these lecturers money when they have failed students which sounds like rewarding none performance.”

There was agreement amongst participants regarding the provision of peer tutoring as a student support service to influence student retention and success at TVET Colleges. Participants explained that they organise peer tutors through the student support unit liaising with the academic departments' HoDs, after which *“the SSS team organises extra classes given by the peer tutors so that may be if students are taught by their peers they might understand better”* (CM3). For SM6 their TVET College provides peer tutoring through the use of competent students who continuously performed better academically. Their institution appoints students whose academic performance is better than others to become tutors to work with the remedial facilitators for a particular academic period. These peer tutors and remedial facilitators work together as a team in providing ongoing academic support. In this regard EM6 explained as follows: *“Through the SSS section we recruit and select students who regularly perform well academically to provide the tutoring programme to students who are not doing well in certain subjects.* EM6's College also allocates certain lecturers the responsibility of being remedial facilitators. EM3 confirmed that his College *“initiated the peer tutor system for the slow learning students”* which EM5 perceived as *“providing a conducive environment for effective teaching and learning activities”*.

- **Partnership with employers**

Participants shared their differing opinions with regard to how partnership with industry is considered important in supporting academic persistence and success at TVET Colleges. There was general agreement that TVET Colleges are in partnership with different organisations.

CL1 admitted that, although her College involves different outsiders during student induction, she knows little about the relationship with such people. For CM2 their TVET College is in partnership with other public institutions and the community who assist in funding their students. CM2 commented:

“Other stakeholders like SETAs, the municipalities, social workers and communities bring groups of learners here and pay stipends for these learners who are unable to pay on their own.” CM4 proclaimed that their College gets very good feedback from the employers and that *“there are companies that ask for more and more of our students”* who are then employed at these companies. They also get feedback from companies *“to say that this one and that one you know there is a problem with attitude and things like that”* (CM4). CL6 explained that their partnership arrangements with businesses involve a gala dinner with them and they *“invite them during graduations, they are much involved especially in hospitality, we invite the local chefs to come and give a speech and encourage them.”* CM6 asserted that *“in terms of student employability, we as a College have functional partnerships with companies in the immediate surroundings, which provide employment opportunities for students.”*

SM1 explained that their partnership arrangements include that they *“invite both our internal and external stakeholders such as the ANGs, the South African Police Services, different SETAs, and other stakeholders so that these students can feel the reality of what we are offering at this college.”* SM2 explained their College’s partnerships included the Department of Labour and private engineering companies who are approached to come and address their students, but *“other than that it is the work-based exposure (WBE) that we rely on”* (SM2). SM5 reported on the one *“functional partnership, a company which came just to address students about employment readiness which I believe help them and we have also sent about ten students to these employers for work-based exposure.”* SM6 reported on their partnerships with many industries to whom their College send students at lower level 2 during March to experience: *“What is happening in the workplace, which also includes just the work integrated learning, during June we send our level 4s to do practical*

experience for ten days” (SM6). EM2 was also satisfied with their “*partnerships with different Departments and private stakeholders to assist in the placement of students at various workplaces*” while EM4 proclaimed that their partnerships with industries are not good which “... *is why most of the students who completed from this institution are employed somewhere else like in Pretoria and Joburg*” (EM4).

From all the responses from participants it was clear that they consider friendly administrative and academic staff, additional learning assistance in the form of afternoon and Saturday classes and potential employers addressing them to understand the reasons for them studying as the main factors initially influencing student retention and success at TVET Colleges.

6.4.4.2 **Sub-theme 2:** main student support services aspects that continuously either motivate or hinder student retention and success at the TVET College institutions (**Part D2** of the questionnaire – **Appendix J**)

Factors that continuously motivate or inhibit student retention and success at a TVET College included inadequately qualified lecturers and lecturer ethics of a poor quality with lesson punctuality. Participants responded to the question on what are the main student support services aspects that continuously either motivate or hinder student retention and success at the TVET College institutions.

- **Inadequately qualified lecturers**

Teaching and learning involve shared activities between the lecturer and students in an arranged venue with the intention of transferring knowledge. CM5 proclaimed that what happens during lesson presentation either positively or negatively influences lecturer/student relationships because what happens in the classroom either “*break or make the courage of a student*”. In this regard CM5 explained that “*there are situations where there is a lecturer from whom nothing is coming out. So that on its own hampers student attendance and encourages student withdrawal. Yes, these students complain about poor teaching.*” CM1 confirmed that their institution provides various teaching aids for lecturers to use during their lessons but pointed out that their College finds it difficult to recruit and employ lecturers for specialised subjects due to remuneration competition from the private environment. As CM1 explained:

“Each lecturer has got his or her own method of teaching, but we try and give them the equipment so that they can make it as interesting as possible in their classrooms. Some subjects unfortunately are very theoretical, but we make use of videos, data projectors and stuff like that

to try and enhance the theory and make it more interesting. It is also difficult for us to easily get suitably qualified people that we want because we have some subjects which are very specialised and that the competition with the outside companies that are involved when it comes to salaries.”

EM3 concurred with the challenge of appointing well-qualified lecturing staff engendering meaningful learning experiences because:

“lecturers who only met the minimum requirements lack that key part of teaching approach even if we provide intervention activities to mitigate the gaps they still do not really come to the party; their classroom management and teaching is a worrying factor.”

SM3 acknowledged that they have both kinds of lecturers, namely *“there are those who are relevantly knowledgeable and on the other hand we have those who are hopelessly not good at all.”*

SM5 agreed that the lecturing ability of lecturers plays an important role in retaining students and *“there are times wherein students complain about incompetent lecturers but we are addressing it”* which EM5 underscored this by pointing out that *“the quality of what is happening in classes contributes to student performance which also determines whether to continue studying or withdraw from that class. These lecturers are not as competent as required.”* Similar sentiments were shared by EM6 who indicated that *“complaints regarding the quality of teaching and learning remains a main concern voiced especially towards examinations and also during protests, their memorandum always has these issues on their list.”*

With regard to facilitating knowledge and information skilfully, CL2 emphasised that *“effective teaching is a challenge to most of the lecturer, and with this kind of challenges it affects teaching and learning because it is the core business for us to be here.”* SM2 reported that their students are generally happy with their lesson presentations, but *“you will find cases where out of the seven NCV subjects, students are happy with five and unhappy about the rest.”* SM2 also acknowledged that *“there are lecturers who somehow are incompetent which needs management interventions and assistance to those kinds of lecturers.”*

In this regard CM4 cautioned that *“when these students are angry then all those issues come out and they say that these lecturers are lazy and incompetent, we must introduce the new method of teaching.”*

With the exception of two participants who indicated that their institution has qualified lecturers, there was general agreement that TVET Colleges experience a shortage of suitably qualified and

relevantly experienced lecturers. However, it seemed that part of not being qualified actually related to not being prepared as explained by CM4:

“We do not have lecturers who are under qualified, but there are students who complain about incompetent lecturers, those lecturers who do not prepare”.

With regard to having competent staff, CL5 confirmed that

“regarding the subject matter, I would say that most of the lecturers at this College are highly qualified.”

CM1 attributed the shortage of suitably qualified lecturers to the competition between the TVET Colleges and industry with regard to recruiting and paying competent salaries. CM1 commented as follows: *“We do not always get the lecturers that we want because of competition with the outside companies.”* SM1 agreed with this situation of competition with the engineering industry acknowledging that their TVET College does not have sufficient lecturers with relevant qualifications because of competition with private engineering companies. SM1 reported as follows:

“If you have qualified lecturers who have that necessary subject knowledge like in your engineering department you cannot keep them long when you compare the incentives given to them as lectures, so they end up leaving this environment to join the industry”.

This situation results in *“a certain low percentage of unqualified lecturers for our N6 lecturing positions where we have to end up relaxing our strict selection criteria during the interview requirements.”*

CM3 added the problem of well-qualified staff lacking practical skills in that *“subject matter expertise is problematic; we have a combination of highly qualified lecturers but not relevant when it comes to the practical experience.”* EM1 concurred with this situation of not having sufficient lecturers who are relevantly qualified. He explained:

“We have that challenge in certain subject matter expertise. Some of these lecturers do not have the necessary practical experience as well as the much-needed knowledge content. The quality of teaching and learning remains a thorny issue here.”

EM2 emphasised that *“subject matter expertise is a recurring problem at TVET Colleges particularly in the engineering studies”* which EM2 agreed with, namely that *“subject matter expertise is a big problem, there is a need for improving this subject matter expertise at our College.”*

For CL1 subject matter expertise plays a vital role in increasing student retention and achievement as she commented that *“the subject matter knowledge has an impact on student retention. I encourage*

them to interesting engagement by demanding that they start their own business on the side-line for interest sake.” This approach, according to CL6, negates the main result of inadequate knowledge of subject matter, namely “these lecturers’ lessons become very boring and results in students not participating that means that the results are going to be terrible.” CM5 shared the same opinion namely that “as soon as there is nothing that students learn from such a class, then student attendance drops and student withdrawal increases. Immediately that happens, student retention becomes lower.”

The over reliance on the textbook during the lesson presentation was cited as part of student support services aspects that may continuously hinder students from studying or motivate them to withdraw from TVET College training. Participants confirmed that their institution monitors the preparation of lessons and classroom management; however, participants concurred that lecturers depend mainly on textbooks in their teaching endeavours. CM2 acknowledged the positive impact of refresher sessions emphasising the importance of lesson preparation which was recently conducted by their management. CM1 commented as follows:

“We were fortunate to have been previously workshopped by people who introduced us to the importance of attendance by the lecturers as well as the learners. The workshop linked well with the classroom preparations in general so that we make teaching and learning activities attractive to the learners. Our students are intrinsically motivated, because we try by all means to make the classes attractive and plan for the teaching and learning. The lesson plans are prepared by the lecturers supervised very-very effectively by their line management which are senior lecturers HODs, and then submitted to Campus manager so that we can monitor the effectiveness of the classroom readiness.”

Other participants aired differing opinions on teaching resources to facilitate teaching and learning. Related to the comments by CM3 on TVET College lecturers relying on textbook teaching only, other participants aired similar experiences. CM4 pointed out that *“because of lecturers who do not prepare for lessons, students complain about lecturers who are mostly comfortable with a textbook method of teaching”* which SM4 confirmed, namely that they *“have lecturers who are so comfortable with their textbook approach, although we provide data projectors and related resources, they seldom use them, students report these practices and complain about these lecturers who always read from their textbooks.”*

These were common sentiments shared by EM5: *“our students continuously report that lecturers always read from their textbooks, they do not offer the practical components and stuff like that”* and EM3: *“students report lectures always reading from their textbooks, with no practical teaching”* and CL4: *“we have situations where students complain that lecturers just read from the textbooks without*

any explanation.” For CL3 it is advisable that TVET Colleges attend to the issue of monotonous utilisation of textbooks when teaching as a way of minimising student attrition in that *“the question of monotony and reading from the textbook by these lecturers may increase student withdrawal from their classes.”*

There was general agreement that with the exception of the languages all other subjects as well as the teaching and learning support materials used at TVET Colleges are written in English. Therefore, despite the fact that the majority of students are from different language backgrounds, English is being accepted as the language for teaching and learning.

Participants aired differing opinions on the use of the English as language of teaching and learning. In this regard CL5 acknowledged that the use of languages other than English for teaching purposes creates problems for students who do not speak that particular language. This approach can influence student performance negatively and yet, *“you will still hear some students complaining that some of the lecturers they are offering some lessons sometimes in the vernacular.”* In sharing similar experiences CL3 pointed out that they *“have situations where students report incidents about some lecturers who keep changing to other languages other than the medium of instruction which is English (and) that frustrates some students.”* SM4 also concurred with this situation when he explained that *“some of them teach in their mother tongue, this complain is common when students are angry, when these angry students submit their list of demands during their protests.”* This approach of some lecturers teaching in their mother tongue results in students complaining and withdrawing from TVET College training because *“these students become frustrated and decide to leave this institution”* (CL4).

- **Lecturer ethics with lesson punctuality**

Absenteeism from class by both lecturers and students has an adverse impact on academic success in any learning institution. Participants cited lecturer absenteeism as part of their experiences with regard to student support service aspects continuously motivating or hindering students to study at TVET Colleges.

Participants agreed that lecturer absenteeism remains problematic at their TVET Colleges. For CM2 the introduction of the class attendance policy in their institution assisted both lecturers and students on the importance of being present in the lesson situation resulting in *“we try by all means to make*

the classes attractive.” SM3 reported that their TVET College received complaints from students about lecturers who attend and conduct classes on an ad hoc basis as and when they wish to be present in class. SM3 reported as follows: *“students complain about lecturers who normally do not attend to their classes. Sometimes they do not stay long in the classes. They just come and go before the end of the session.”* SM5 reported a similar situation where they *“recently received complains about lecturer absenteeism from students”* which CM5 concurred with, namely that *“students write letters to us concerning the fact that this guy (lecturer) is not coming to class; he is never turning up for classes.”*

Such similar conditions were reported by EM2, *“there are cases where students raised these late coming, expressing their unhappiness about some lecturers not attending to them, wasting their time, they therefore rather study by themselves”* and EM3, *“students blame and complain about some lecturers who dodge attending to their classes.”* SM6 reported that at their College they received a memo from students indicating that they do not have a lecturer in their class which she perceived as *“a national thing, because there was once a memo submitted to the former minister of education from the TVETs complaining about such things.”*

It was clear that the quality of teaching and learning, regular feedback on students’ assessments, monotonous and boring teaching approaches, the language of teaching and learning, and poor class attendance and late coming by lecturers are aspects that continuously inhibit student retention and success at TVET Colleges.

6.4.5 Theme 5: other additional aspects that should be considered for improving student recruitment, retention and success at the TVET College institutions.

Participants were asked to comment in case there were other additional aspects that may contribute towards the effective management of student recruitment, retention and success at TVET College institutions. The general responses on these additional aspects included the quality of students coming from schools, the quality of student support activities, relevant career guidance from an early age at school, a profound foundation in mathematics and English, a dedicated student retention unit, available financial assistance, the medium of instruction, and the only option for further studies.

- **A dedicated student retention unit**

There was a shared sentiment among participants that the management of student retention and success are the responsibility of the student support services (SSS) of the applicable College with participants having differing opinions on the effectiveness of this SSS department to enhance student retention. CM1 proclaimed that their College's SSS *"is mostly focusing on extramural activities and they neglect retention"* with CM6 who proclaimed that, *"although our SSS unit tries its best, we need a student retention unit to deal with these matters, because, no, there is no dedicated unit for student retention."* For CM4 their institution's SSS effectively managed to retain an acceptable high number of students whereas CM3 stated that there is no dedicated unit that focus on student retention other than the SSS in their institution. This was supported by CM4 who noted that they did not have any unit focusing on student retention because *"this function is done by SSS"*.

- **Available financial assistance**

The national government provides needy students at TVET Colleges with financial assistance through the National Student Financial Aid Scheme (NSFAS) in the form of fee free education. During interviewing the availability of financial assistance was mentioned as an important aspects attracting prospective students to enrol at TVET Colleges.

Participants confirmed that their institutions received money from the NSFAS as a free bursary to students who are poor to positively assist them to focus on their studies. SM5 acknowledged that *"the availability of financial assistance plays a big role in keeping students, they remain here because they rely on these financial assistants"* which for SM6 is a reason for students' decisions to enrol at a specific TVET Colleges because *"students know that despite their financial background they'll still be able to learn because of this grant"*. SM6 pointed out that this financial assistance is one of the things that actually encourages students to study and to persist with their studies because *"even after they have completed their NCV they proceeded to enrol for the NATED programmes through bursaries."* CM5 believed that the first thing that attracts most students to TVET College studies is the fee free education in the form of bursaries which CM4 concurred with, namely that for students *"available financial options play an important role"*. CM4 pointed out, however, that *"students would say that the fees are affordable for them, I am paying for myself, just to impress their peers and nothing else."* However, CM5 shared her opinion with regard to the importance of the NSFAS relating to their College being in the most rural area wherein poverty remains a big challenge:

“If we can just add the feeding scheme of some kinds, I do not think that is a lot of money for a campus, just the bread, jam and tea, for these poor students. Some of these students do not have shoes, nothing at all” (CM5).

Although financial assistance from the NSFAS contributed to student recruitment, retention and success with TVET College studies, EM6 pointed to the fact that some students “*enrol because there is this bursary funding, not that the student really wants to complete their studies*”. SM2 concurred with this opinion namely that, although financial aid assists students in many different ways, it is also misdirected to other areas other than what it is intended for. The NSFAS motivates some students to continue studying while other students use this aid as a mere salary forcing them to return yearly for this ‘salary’. SM2 reported as follows: “*Some students use this bursary as a salary, it forces them to come back because students expect to be given their allowances*” which represents misuse because the colleges cannot pay students’ transport fees directly to their transport services. SM2 emphasised:

“Students insist on receiving the allowances so that they pay the transport and accommodation themselves. This money goes direct to them of which sometimes they do not use that money for the very purpose of what the Department is giving them for.”

Related to these statements on how financial assistance is misguided and distortedly implemented, SM1 concurred that, although the objective of the available financial assistance is good, namely to motivate students to study, some students are less concerned about their education hence focusing on other issues than academic success. SM1 proclaimed:

“This NSFAS does not really make that intended impact because to these students this financial assistance is just like an RDP house, which people treat as a must have. The NSFAS must be freely given to these students without them being accountable. The same applies to this issue of the bursary allowances. You know to these students they are just taking this NSFAS without committed to their academic progress. The way students perceive these allowances is problematic, it remains a challenge.”

SM1 attributed poor class attendance and the irresponsible utilisation of the free bursary allowances to lack of commitment and accountability:

“That is why students even decide not to attend their classes knowing that they are not losing anything. You see when you freely give me money for transport I can even buy liquor instead of going to attend classes because the only thing I need is that money, and not the value attached to it.”

- **The language of teaching and learning**

There was general agreement that the language of teaching and learning plays an important role in student retention and success at the TVET College education. CM6 acknowledged that English as the language of teaching and learning remains problematic to both the lecturers and students because English is not their mother tongue. This challenge resulted in the installation of a reading excellence computer programme to improve both reading and writing skills in English. CM6 explained that the language policy of the College demands English as language of teaching and learning, but due to the fact that many students encounter English as a challenge *“not being their mother tongue, an English remedial programme called ‘reading excellence’ assists those who have some language challenges.”* CL3 acknowledged the importance of a thorough mastery of English but added the importance of having a solid foundation in mathematics as well because *“English and mathematics influence student retention and success because most of the syllabuses here are rendered in English and are focused on mathematics in one way or another.”* CL3 concurred with the importance of having a good knowledge of mathematics because poor academic performance is related to a lack of a thorough mathematical background. CL3 proclaimed: *“Most of the students who come here have not done mathematics in their high school. They come and start doing mathematics here. I think we need to improve the academic support in that area.”*

- **An option for students whose admissions are rejected by the university**

A main objective for providing financial resources to the TVET Colleges is to eradicate the wrong perception of a university education first and foremost by making TVET Colleges the preferred institutions for enrolment for the majority of citizens.

CM1 emphasised that students who enrol at TVET Colleges are without any knowledge of the courses provided since they do not know the TVET College set up:

“We have a lot of challenges when it comes to students getting their expected course content here because many students who come to this College do not even know what the purpose of TVET training is, and also they do not have their future plans. Therefore, when these students reach their matric they do not even know what to do.”

CM1 also noted that students end up enrolling for any course wherever there is an opportunity to enrol, not necessarily the expected course based on the anticipated outcome because:

“Many students come here not because they want to study TVET College courses; they enrol for anything wherever they find a space, but when the courses they intended to enrol for are full they go to another course and then later on halfway through the year, or towards March they realise that this is not what they wanted to do, and they withdraw from the College.”

SM1 emphasised that *“these students did not plan to study vocational education, they did not receive correct career guidance from schools, so when they reach their matric they do not even know what to do”* (SM1).

These views are shared by other participants like CM2 who pointed out that:

“Some students come to us under the impression that they are going to have the bursaries, but then because of the means tests. You find that some of these students do not qualify for the bursaries. Some of them fail to come to our college because of those types of courses which we do not have. You know these students first try at universities before they are told to try here as well.”

For CM2 this approach results in wasting everyone’s time and the country’s money resulting in frustrated students who *“realise that they do not have any knowledge or background of the technical subjects”* (CM3). In this regard CM3 recommended that technical schools must prepare students for TVET College training in the sense that *“if we can have special feeder schools, may be starting from the higher primary school grades it will be better, it can be Grade 6 and then we say these are the students who pass from these they can be able to go to the FET.”*

Related to thorough preparation of high school students for TVET College training as emphasised by CM3, CM6 suggested that learners be sensitised to academic or vocational training aligned to anticipated career options as early as primary school years already. In his own words, CM6 remarked:

“It can be started at the lower levels in the primary schools before the students reach the entry into TVET. For instance, if a student says I want to be a doctor, or a lawyer then we will know from there that this is not TVET material, but if this other one says I want to be an engineer then we will pick it from there that this is TVET material. And then we start to support this child towards that direction and influence that thinking, now become crystallise in his thinking. So that we tailor that student in to the way that he’ll successfully enter into the TVET environment and assist him to achieve that engineering interest at the earliest level. Then I think career guidance needs to be intensified from the very-very lower level.”

SM1 concurred with the views of CM6 insofar as pointing out that with regard to the NCV programme the intention is that prospective students still at school:

“... who are doing Grade 9, before going to Grade 10 these students must correctly choose their career paths thorough the proper career guidance. Those who want to become a professional in a particular field, may be a doctor, and then proceed with this stream of the high school. But those who want to follow careers say in electrical engineering or mechanical engineering then

go to the TVET Colleges, moving the alignment from Grade 9 that shows that the NCV programmes are highly pitched for these students.”

Participants commented on the enrolment tendencies of students wherein prospective students apply late for registration and thereafter delay enrolling until the very last moment before closure. CM1 attributed students' unplanned enrolment decisions to the fact that these students would have preferred to further their studies at universities because these students *“would like to go to the universities but they then do not qualify, and thereafter they see the TVETs as their stepping stone, which is not the purpose of the TVET Colleges.”* Similarly, SM1 pointed out that when these students reach Grade 12 they still do not know what to do, *“they would like to go to the universities but they then do not qualify, the TVETs is then the backup.”*

Participants were in agreement about the fact that students first try to enrol at universities before falling back on TVET College training, and are totally ignorant about possible training options with related employment possibilities. In this regard CM4 stated that *“in most cases students come here very late, almost when there is no longer space to accommodate them. They do not apply in advance”*, which CM2 confirmed, *“we have lots of students who firstly try elsewhere and come to us when they are not accepted by those other institutions far from their permanent homes”* and CM5 repeated, namely that *“these students do not apply in advance, they wait until it is late and come in big numbers, they are so ignorant, they try the universities first, we are the last option.”*

CM6 pointed to the fact that some students enrol at TVET Colleges as an interim arrangement while investigating other options because *“all of a sudden you get those who would come out to say no, I am now withdrawing because I have now been given space elsewhere”*.

SM3 agreed with this view and pointed out that *“very few students planned to come here; it is only when they have been told to try elsewhere, not because they planned to (do) that in the first place”* resulting in TVET Colleges being students' *“second or even third option”* (SM3). SM4 explained TVET College registrations as related to *“students come here because they heard that there is space at the TVETs, not because they wanted to come here, it is only when they realised that they failed at the universities then they come to try their luck here.”* EM5 confirmed that the skewed perception regarding TVET College training as being inferior to a university education persistently remains as *“students still prefer to go to universities, and TVET Colleges remain the last resort, because of wrong perceptions.”*

It was clear from the interviews with participants that the majority of students prefer training at either academic universities or universities of technology. TVET College training persistently remains a

second option for many students based on perpetuated skewed perceptions. These perceptions accompanied by a failure to meet entry level requirements for university training results in student stampedes during registration periods at TVET Colleges to accommodate frustrated students being ignorant about their future endeavours.

6.5 SUMMARY

These findings organised around four explored themes from the analysis of the collected data during the interviews and the subsequent analysis of the transcripts elicited the salient factors influencing students' decisions about TVET College choices and course choices within specific TVET College institutions. These factors also highlighted the pertinent influence of some activities on student retention and eventual success with TVET College tuition. It was clear that matters such as safety and security, the availability of transport and proper marketing of what the College is offering influence recruitment tendencies. Employment possibilities after obtainment of qualifications represented a meaningful factor to motivate students to persevere with their studies whereas constantly proper communication and well-prepared lecturers with well-developed study material ensure eventual success for TVET College students.

The next chapter, Chapter 7, provides a synthesis of the research findings from the data collected quantitatively and qualitatively.

CHAPTER 7

SYNTHESISES OF THE RESEARCH RESULTS

7.1 INTRODUCTION

This chapter consolidates the synthesis of the research results reported in chapters 5 and 6 of this study. This section presents the main findings in an integrated form flowing from the quantitatively and qualitatively collected data. These findings and the details of the analysis are critical inputs for the redesigning of student retention and success guidelines to accommodate the South African Technical and Vocational Education and Training (TVET) education perspectives.

With regard to synthesising the quantitatively interpreted data, each set of data is discussed separately based on the respondents' ratings using the Likert scale rankings on the 71 items formulated. With regard to synthesising qualitatively interpreted data, research findings are synthesised in thematic format.

7.2 DISCUSSION OF THE FINDINGS ON DATA QUANTITATIVELY COLLECTED

The findings on the data quantitatively collected from the respondents who are students at different grades studying at the six TVET College institutions in Limpopo Province are presented in Chapter 5. This section synthesises research findings based on the questionnaire.

7.2.1 Part A: Socio-demographic profile of respondents

In section A of the questionnaire (Questions 1 to 19), the respondents' personal, parents or guardians, and TVET Colleges details were discussed. This was done to gain insight into the socio-demographic profiles of students relating to the following research findings:

Firstly, the gender of the respondents was found to have 60% female and 40% male students participated in this study which is in line with the government drive to promote gender balance in the historically male dominated technical and vocational education. Although statistics show that gender differences at higher learning institutions slightly decrease with time, this finding confirms and extends earlier studies which have consistently shown that women as compared to men are more likely to complete their courses (Astin, 1971, 1975, 1993; Astin, Tsui & Avalos, 1996).

Secondly, 43.5% of the respondents were of between 21 and 23 years whereas 22.9% of respondents were between 24 and 26 years. These findings imply that the majority of TVET College students are the youth who have either completed their high school education or decided to further their employability opportunities through technical and vocational education.

Thirdly, the distribution of the Grade 12 average marks revealed that 51% of the respondents obtained an average percentage of 59% or less (Level 4) in their final Grade 12 examinations. It is not surprising that only 28.6% of the respondents obtained 60-69% (level 5) whereas 4.8% obtained 80% or above since the TVET Colleges do not utilize standardized entry requirements. These unstandardized admission policy requirements enable the admission of students who are not satisfactorily prepared for the TVET College education. The role played by the high school career guidance in impacting students' decision to select a particular institution and persevere studying without dropping out cannot be underestimated. The level of a high school curriculum undertaken by a student was strongly related to persistence in the College education (Crisp & Nora, 2009; Horn & Kojaku, 2001).

The fourth variable focused on the distribution of the mode of registration of the students. It was observed that a large number (90.9%) of the respondents enrolled as full-time students whereas only 9.1% enrolled as part-time students (Figure 5.4). The statistics suggest that most of the courses are provided to students who are available during the morning and afternoon periods or few students prefer to enrol for part-time tuition. It may also mean that few TVET Colleges provide alternative types of registration other than full-time mode of curriculum delivery. This might mean that the TVET Colleges do not actively utilize their facilities from morning to afternoon sessions without evening or weekend classes.

The distribution of the courses students enrolled for revealed that 56.9% of the respondents enrolled for the N Course and 43.1% enrolled for the NCV Course which implies that students are interested in enrolling and studying for N Courses (trimester or semester) as demonstrated by the fifth variable. This is an indication that there is a need for a regular revision of the curriculum in the TVET education.

The sixth variable dealt with the distribution of the distance from the students' permanent homes to the College. It was noticed that the majority (78.5%) of the respondents travel 11km and more to and from their TVET Colleges when attending which suggests that students prefer to enrol and study in

institutions which far from their place of births or the TVET Colleges are far from most of the communities.

The seventh variable relates to the distribution of the places where students stayed while studying at the TVET Colleges. It was observed that 65.7% of respondents stay far away from their homes while studying at the TVET Colleges. These results might be an indication that students prefer to study at TVET Colleges that provide wide choices with regard to different courses to choose from and therefore opt for these learning institutions knowing that they will have to arrange for their own lodging.

The distribution of the permanent place where the respondents were born and grew up was illustrated by variable number eighth which showed that 86.1% of the respondents are the permanent residents of Limpopo Province. This statistic suggests that prospective students prefer to study at the local TVET Colleges for various reasons of which an important one pertains to familiarity with the environment.

The ninth variable which focused on the distribution of the qualification of students' parents or guardians revealed most (40%) of the respondents indicated their parents' or guardians' level of education as secondary school education (Grade 12 or N3) followed by 23.3% whose parents obtained post-school qualifications (diploma or degree) (Figures 5.8 and 5.9). The parents' level of education directly or indirectly influenced their children's academic aspirations and persuasions (Astin & Oseguera, 2005:124, Attewell, Heil, & Reisel, 2011:538, Sheldon, 2002:101, Sanders & Sheldon, 2009:311). This research finding confirms that students' parents or guardians possess the level of education that can directly or indirectly impacts on their children's college education.

The tenth variable that focused on the distribution of students' responses according to their parents' or guardians' income revealed that a large number (67.1%) of the respondents' parents or guardians are self-employed (Figure 5.10). The other percentages of the respondents indicated that their parents or guardians' income comes from other sources such as pensions, government employment and the private environment. Although parents in general have high aspirations for their children to study at Colleges, those parents with lower socio-economic status levels are less likely to take action to increase their children's chances of enrolling at Colleges (Cabrera & La Nasa, 2000; Cunningham, Erisman, & Looney, 2007; Rowan-Kenyon, Bell & Perna, 2008).

The next section focuses on the selected highly ranked statements based on the average mean values using the Likert Scale between 1 and 5 wherein individual respondents were required to rate various factors from parts B, C and D of the questionnaire used in this study (section 5.4).

7.2.2 Part B: Institutional image and reputation of the TVET College institutions

The **Part B** section of the questionnaire sought to assess the extent to which the respondents rated the usefulness of the different sources of information that the TVET Colleges provide when recruiting students, influencing retention and eventual success with studies. The statistical findings indicated that a majority of students are influenced by institutional image and reputational information sources in their decisions to select and enrol at certain TVET Colleges rather than others (section 5.4.1; Table 5.7).

The Chi-Square tests conducted on the institutional image and reputational information sources found the following 9 from the 18 items on this part of the questionnaire to be extremely important in influencing students' decisions to choose to enrol and remain at specific TVET Colleges.

- **School visiting college campuses during open days**

79.9% of the respondents rated schools visiting Colleges or campuses that take place during open days as important to extremely important as a way of recruiting potential students. This response suggests that the TVET College open day activities play an important role in influencing students to select certain courses at a particular TVET College and remain studying at the same institution until completion of their studies.

- **Student recruitment initiatives**

The majority of respondents (81.6%) attested that contacting the TVET Colleges through the website or internet platforms is extremely important. This could suggest that the TVET Colleges need to regularly review their marketing strategies to keep abreast with the latest and relevant recruitment strategies as they reach out to their prospective clients.

- **TVET College publications**

It was found that 77.0% of the respondents consider the TVET College publications as an important to extremely important source of encouragement to prospective students as they choose to enrol at particular TVET Colleges and remain studying until completion of their studies.

- **Quality of available academic facilities**

The quality of available academic facilities was considered extremely important by 80.8 % of the respondents. These responses signaled that some TVET Colleges have different academic facilities that encourage students to persist studying at these institutions which is a requirement for increasing student retention and success.

- **Cleanliness and neatness of the TVET College campuses' premises**

The item which sought to determine the influence of cleanliness and neatness of the College campuses' premises found that most of the respondents (77.2%) considered it to be important to extremely important. This statistic suggests that these institutions must know and understand the impact of the institutional image and reputation on students and other related stakeholders which is likely to compel these institutions to continuously keep the facilities up to a certain standard and as a way of attracting prospective students and encouraging the current student to continue studying at these institutions until completing their studies.

- **Safety and security at the TVET Colleges' campuses**

One of the highly ranked items by most (84.8%) of the respondents is the safety and security at the learning institutions. This analysis confirms the seriousness of crime in South African institutions of higher learning which plays an important role in students' decision to choose to enrol and remain in a particular institution until they complete their studies. It also confirms that students prefer to study in a safe and secure learning environment.

- **TVET College located where employment opportunities are easily accessible**

71% of the respondents from TVET Colleges who participated in this study consider the location of the institution with regard to possible employment opportunities available in the area where the institution is located and, therefore, easily accessible, as important to extremely important to direct their choice of enrolment at that institution. This research finding suggests that institutions and industries which are closer to each other may successfully establish partnerships that increase student employability opportunities. It is expected of the TVET College institutions and employers to collaborate in developing a skilled work force, in order to improve economic growth and reduce sustained high unemployment rates.

- **Ease of getting home from the TVET Colleges**

71.2% of the respondents valued the ease of getting to their homes from the institutions where they are studying as extremely important which implies that efficient transport for students from their residential places to the colleges is vital. This research finding suggests that there is a need for adequate and safe transport available for students, particularly in areas where the safety of pedestrians cannot be guaranteed.

- **The only TVET College to provide for the training needs of the student**

The majority of respondents (74.6%) considered the TVET College that provides various opportunities for students to achieve the academic and training goals as extremely important. This research finding suggests that students are likely to be motivated and succeed in the environment that continuously makes available numerous options for students to successful meet the expected outcomes and these students hold on to their high expectations and improve their abilities to meet required standards.

The next section reports on the factors influencing student persistence and academic performance in TVET Colleges.

7.2.3 Part C: The main factors that influence student persistence and academic performance at the TVET College institutions

The responses from Part C of the questionnaire determined the opinions and perceptions of respondents in relation to factors that influence student persistence and academic performance at specific TVET Colleges and that possibly enhance student retention and success. They revealed that all the 16 statements are considered to be very important (section 5.4.2; Table 5.8). The highly ranked items are discussed next.

- **The course that the student is enrolled for at the TVET College**

A large number of the respondents (71.5%) considered some courses enrolled for as moderately important to very important which mean certain qualifications are themselves a motivation for students to persevere with their studies until successful completion.

- **Considering employer perception of the quality of tuition of the TVET College**

62.4% of the respondents indicated that how employers perceive the quality of TVET College education is moderately important to very important in influencing student retention and success. Knowing that employers recognize and attach value to TVET College graduates is likely to encourage students to persist studying until completion.

- **Emphasis on the importance of technical and vocational education**

It was revealed that 60.7% of the respondents ranked the emphasis on the importance of TVET education as moderately important to very important which supports the call through the use of various media platforms for TVET Colleges, the Department of Higher Education and Training (DHET), and Environment Educational Environments (SETAs) to promote the importance of technical and vocational education.

- **Availability of financial assistance opportunities**

Most of the respondents (67.3%) indicated that the availability of financial assistance opportunities is very important in influencing students' decision to enrol at different learning institutions. This

research finding implies that students select and enrol at TVET Colleges that provide financial assistance which makes sense because only 32.7% of the student population who participated in this study are from family backgrounds that can afford TVET College fees.

- **Advice from people who previously studied at TVET Colleges**

63.3% of the respondents rated the advice from other people who studied at the TVET Colleges as moderately important to very important. This research finding suggests that students value the advice from various members of the society as a source of motivation in selecting a TVET College education and persistently studying until completion of their courses.

- **Potential well-paying jobs after completing the course**

The fact that 66.6% of the respondents ranked potential well-paying jobs after completion of certain course as as very important in stimulating students to enrol suggests that well-paying jobs can be used as an effective source of encouragement when recruiting students to enrol at TVET College. It could be that certain job opportunities can consistently propel students to persist studying. This kind of motivation can effectively assist both prospective and current students, and also the students from poor family backgrounds.

- **Available employment opportunities to qualifying students**

63.5% of responses claimed that available employment opportunities for qualifying students is one of the factors that influences students' decisions in choosing their preferred courses and to possibly enhancing student retention and success. This research finding suggests that TVET learning institutions need to partner with different industries and businesses in order to increase student employment opportunities which will motivate students to perseverance to successfully complete their studies.

- **Government encouraged students to study for this course**

The findings reveal that 62.2% of respondents consider encouragement by various information sources, including government encouragement initiatives, when deciding to enrol for a particular

course. This implies that students are encouraged to persevere based on the hope that they will be employed after completing their studies.

- **Qualification that matches students' expectations**

66.8% of the respondents considered the qualifications that match what students expect as very important, suggesting that courses that are relevant for labour market needs and that are responsive to students' learning needs are likely to encourage these students to continue studying until completion. It is important for TVET Colleges to identify and know exactly what these students expect before or immediately after registration and ensure that this information is incorporated into student provisioning.

- **An option for candidates whose admissions are rejected by the university**

Most respondents (59.3%) indicated that students consider TVET Colleges as an option only when they have been rejected by other institutions of higher learning such as universities. The implication is that students prefer to study at universities, but unfortunately resort to TVET College tuition only as a second option which negatively influences student motivation.

7.2.4 Part D1: Factors relating to the main student support services that initially either motivate or inhibit student retention and success at TVET College institutions.

Part D1 of the questionnaire (**Appendix J**) had 16 statements on which the respondents expressed their opinions and perceptions concerning the main student support services factors that initially either motivate or inhibit student retention and success at TVET Colleges (section 5.4.3; Table 5.9).

- **Student induction programme that prepare students for the College education**

The majority of the respondents (66.1%) considered a properly organized student induction programme to be essential in preparing students to persevere and successfully complete their studies at TVET Colleges.

- **Courses that prepare student for employment opportunities**

A large number, namely 80.8% of respondents, considered courses that prepare students for employment opportunities as moderately important to very important in influencing students to persist until they achieve success with their intended TVET Colleges education.

- **Course content that matches students' expectations**

77.8% of the respondents ranked the course content that matches students' expectations as a very important source of motivation for student retention and success.

- **Relevant career guidance offered immediately after registration**

Relevant and effective career guidance that is offered immediately after registration at TVET Colleges was considered by most students (68.6%) to be influencing student retention and success positively.

- **Effective academic and training support activities**

In determining the opinions and perceptions of the respondents with respect to the provision of academic and training support as a factor that influence students' persistence in their TVET Colleges studies, most respondents (59.9%) considered this item as slightly important to very important.

- **Conducive campus climate for diverse students**

Most of the respondents (62.4%) considered a conducive campus climate for diverse students as slightly important to very important which suggests that it encourages students to persevere studying until completion of their qualifications. These results demonstrate that most campuses' environments are conducive for students from different backgrounds.

- **TVET Colleges and schools collaborations**

The research findings reveal that most respondents (59.7%) ranked the TVET Colleges and schools working together as every important. These results indicate that functional collaboration between

TVET Colleges and schools promotes higher learning education well before students enrolled at the TVET College and increased performance. These results further suggest that collaboration between schools and TVET Colleges resulting in an increased awareness of the new, TVET educational environment contributes to entrants being more prepared for their after-school studies.

- **Adequate knowledge of subject matter**

It was found that 68.1% of the respondents rated adequate knowledge of subject matter as moderately important to very important in relation to academic support that increases student success. TVET Colleges are expected to offer a variety of courses by those who are knowledgeable. Revealed by these findings is that the provision of adequate knowledgeable subject matter is critical for increasing students' performance resulting in improved student retention and success.

- **Inviting potential employers to speak to students at the campus**

Inviting potential employers to speak to students at the campus was rated by most (63.5%) respondents as moderately important to very important. This finding confirms that inviting potential employers to motivate students is considered as one of the key elements that increases students' performance and should be treated as part of functional partnerships between the TVET Colleges and employers. Being addressed by potential employers might motivate students to persist studying in order to find relevant employment after completing their qualifications.

7.2.5 Part D2: Factors relating to the student support services that continuously either motivate or hinder student retention and success at TVET College institutions.

This section focuses on the opinions and perceptions of the respondents with regard to student support services factors that continuously either motivate or hinder student retention and success at TVET Colleges (section 5.4.4; Table 5.10).

- **Academic performance and social involvement as sources of encouragement**

Research findings reveal that 72.5% of the respondents considered students' academic performance and social involvement in institutional activities as very influential to strongly influential factors that motivate students to persevere and succeed with their studies. These findings reflect how much

studying hard may motivate a student to remain focused on the goals to be achieved because success breeds success.

- **Expectations differing from recruitment materials**

47.1% of respondents rated the impact of the recruitment materials that differ from students' expectation as very influential to strongly influential which could result in students withdrawing from the College before they complete their studies.

- **Insufficient effective student orientation and induction**

Student orientation and induction that is ineffective was rated by 49.4% of respondents as strongly influential to students at TVET Colleges. This implies that the properly provisioning of student orientation and induction can be one of the important factors to counter students' educational culture shock.

- **Assistance with language ensuring good command of the medium of instruction for effective teaching and successful learning**

The majority (51.8%) of the respondents rated the assistance with language to ensure good command of the medium of instruction for teaching and learning as very influential to strongly influential which suggests that the quality of the medium of instruction differs from one TVET College to another.

- **Effective student support services**

Research findings revealed that 57.4% of respondents rated effective career guidance, academic support and advice services as very influential to strongly influential. These findings confirm that the provision of effective support to students is an important predictor of acceptable academic performance, persistence, student retention and success.

- **Lecturer absenteeism**

44.7% of the respondents ranked lecturer absenteeism as very influential to strongly influential which illustrates that, although not the opinion of most respondents, lecturer absenteeism from the normal

teaching and learning sessions negatively impacts student retention and success. The fact that less than half of the respondent group viewed lecturer absenteeism as negatively influencing student success could be an indicator of students' ability to resort successfully to self-study.

These highly ranked items based on quantitatively collected data are finally consolidated in Chapter 8. The next section represents a synthesis of the research findings based on the data qualitatively collected.

7.3 DISCUSSION OF THE FINDINGS ON DATA QUALITATIVELY COLLECTED

A discussion of the research findings based on a qualitative research approach comprises insight gained from interviewing and perusing documents.

7.3.1 Interviews

This section presents the research findings emerging from interview discussions as linked to the research objectives of this study (section 1.6; section 5.4). Each objective had more than one question linked to the main objective to ensure that the outcomes of the interviews are in line with the research objectives and the research questions. The objectives which were not addressed by these interviews were then answered through the questionnaire and the documents that were perused.

7.3.1.1 Objective 1: To investigate which institutional image and reputational aspects influence students to choose a specific TVET College rather than the other (section 1.6 and section 5.4.1 linked to **Part B** of the questionnaire – **Appendix J**).

The interviewer provided participants with a general statement on low student retention and throughput rates and high rates of student dropout, requiring participants to comment on the statement (section 6.4.1).

- Responses to question 1: What is your comment on the low rates of student retention and throughput and the high rates of dropout? Are you aware of these statistics? In what format are you informed about these student retention, throughput and student dropout statistics?

Participants responded to this question as follows: 75% (18 out of 24) of the TVET College employees who participated in this study confirmed that they were aware of the low rates of student retention and success, and low throughput rates.

From the 24 employees who were involved in this study, 6 (25%) expressed some level of uncertainty in agreeing with this statement although they were familiar with part of the statement provided in section 6.4.1. It is expected that all employees within the TVET College sphere should be aware of and know the low rates which have a negative impact on student retention and success. It was clear that TVET College employees understand and interpret student retention, success, and throughput rates differently.

- Responses to question 2: Do you believe that potential students choose to enrol at this TVET College because of its institutional reputation?

The majority (21 out of 24) of the participants interviewed during this study believe students choose to enrol at a particular TVET College because of its institutional reputation. It is clear that the TVET College's institutional reputation is attributed to the institution either being in the city or being in a deep rural area or being far from other TVET Colleges. Additional opinions of participants related to the fact that students enrol at a TVET College because of the previous academic performance, some come to the TVET College after have been rejected elsewhere, or their choice is based on the geographical location of these institutions particularly in the city or rural areas.

- Responses to question 3: In your opinion what are the main reputational factors influencing students to choose a specific TVET College rather than another College?

In responding to this question, participants considered numerous aspects, namely safety, security and the general cleanliness of the College, ease of getting from and to the college (transport), student facilities provided at the College, visits to schools by the College for marketing purposes, the geographical location of the institution, and employment opportunities as the main reputational factors that influence students to choose a specific TVET College rather than another.

- **Safety, security, and cleanliness**

The majority (62%) of participants identified safety, security and cleanliness as some of the factors that attract students to choose one TVET College over others. Of the 24 participants 9 (38%) did not consider safety, security and cleanliness as important reputational factors. It is the responsibility of all TVET College employees and all relevant stakeholders to pursue the safety, security and cleanliness of their TVET College at all times.

- **Available transport to and from the TVET Colleges**

Participants cited the availability of various modes of transport as one of the factors that attracts students to enrol at their institutions (section 6.4.1.2). 54% (13 out of 24) of participants reported that the public transport such as the taxis and buses reliably transport students to and from the TVET Colleges. Although these TVET Colleges do not own these modes of transport, some institutions form an informal partnership with the transport owners for special trips. It is interesting, however, that not all participants considered transport to be an important factor for student retention, throughput and eventual success.

- **Student facilities provided at Colleges**

In general, most (17 out of 24) participants provided details about the facilities available to students or not being available to them with additional expressions on the condition of those available (section 6.4.1.2). From the 17 participants who responded to this question, 10 of them illustrated their reservations about the state of the available facilities.

For instance, these participants pointed out that we are still behind when it comes to the infrastructure. Whilst there are no libraries at some of these institutions, the available hostels are not enough and have limited beds, some of these workshops are not furnished whereas the others are outdated, the conditions of these hostels are not satisfactory and they experience serious challenges with student residences or hostels.

Of the 17 participants, 7 (42%) expressed different and positive views about the available facilities, i.e. although these institutions are actually developing, there are excellent workshops recently built which are in better condition and are accredited. Also the available library and the student computer

laboratories are in better condition. The hospitality centre facilities are in better condition than the rest of other facilities mentioned.

It was observed that 7 out of 24 participants did not mention these student facilities as part of what they consider as the main reputational factors that influence students to choose this TVET College and not the others. An interesting observation was that the lecturers who are critical for teaching and learning did not comment on the inadequacy of facilities as mentioned by other participants.

It was clear that different TVET Colleges are differently resourced particularly with the available student facilities such the student residences or hostels, workshops, libraries, and a hospitality centre. All the TVET College employees who are directly dealing student activities should and are expected to know aspects that influence students' decision to enrol and remain studying at a learning institution.

- **Geographical locatedness of the institution**

Section 5.2.2 has already made mention of institutional reputation and image of the TVET College particularly on statement 18 (Table 5.3): “This is the only TVET College that provides for my academic needs.” This statement and participants' comments on this statement emphasised the disparities between institutions based at rural areas from those in the cities.

The minority (8 out of 24) of participants interviewed in this study consider the geographical location of the institution as part of the reputational factors influencing students to enrol at a particular TVET College. From these 8 participants, 6 (75%) participants pointed out that prospective students and other stakeholder prefer institutions located in towns or cities since there are a lot of activities going on. Most students leave their places of births to study institutions based in cities because they are easily accessible. Other participants argued that the TVET Colleges situated in a very deep rural area provide opportunities for those who cannot afford to access affluent institutions which are far from their residential areas.

While the rationale for the radical recapitalisation of the TVET Colleges was meant to improve the disparities between these institutions, there will always be a schism between rural and urban provisioning in that the learning institutions in the cities will always be in a better position to encourage related stakeholders that can improve the teaching and learning environment that eventually attracts more students. In this regard, the country still needs to focus on improving the

facilities in the TVET Colleges based in rural areas to minimise the high number of potential students flocking to the cities for the same qualifications because of the facilities. There is need in rural Collages for the minimum standards for student accommodation and related facilities that enhance academic persistence and success.

7.3.1.2 **Objective 2:** To determine the main institutional communication sources used to attract prospective applicants to enrol at a specific TVET College (section 1.6; section 5.4.2).

- Responses to question 4: Do you believe the view that institutional image and reputational information sources influence prospective students' choices to enrol at a specific TVET College rather than another?

The majority of the participants (80%) provided various explanations justifying that the institutional image and reputational information sources influence potential students' choice to enrol at a specific TVET College rather than another (section 6.4.2.1). However, participants also indicated that many students first try other places of higher education endeavour efore applying at TVET Colleges. College employees agree that institutional image information sources that influence potential students' choice to enrol at TVET Colleges are many and different and are related to the specific institution.

- Responses to question 5: What are the main image and reputational information sources used to attract prospective applicants when recruiting and selecting students to enrol at a specific TVET College?

It is generally acknowledged that the TVET Colleges utilize various media in recruiting prospective applicants to enrol, but available resources play an important role in determining the marketing tools. The main institutional image and reputational information sources used to attract potential applicants when recruiting and selecting students to enrol at a particular TVET College pertain to aspects such as advertisements through radio stations, different print and electronic media, and word of mouth as the influencer of student recruitment, retention and success at the TVET College institutions as discussed next.

- **Advertisements on radio and TV stations**

All the participants identified advertisement on various local radio stations and, with the exception of one institution; they do not involve television to recruit students. There was a wide range of views concerning the type of the radio stations used, how and when they are involved (section 6.4.2.2). Advertising through the radio was found to be effective when prospective students are back from schools until late at night. Radio advertisements are preferred over advertisements on television because it is more affordable for TVET Colleges to advertise on the radio stations than the cost incurred when involving the TV stations.

- **Print media**

An overwhelming (83%) majority of the participants identified the printed media with all its possibilities such as newsletters, prospectuses, pamphlets, brochures, and flyers as the main informational image sources used to attract potential applicants when recruiting and selecting students to enrol at TVET Colleges. Some participants acknowledged the use of websites for advertisement purposes (section 6.4.2.2).

- **Other recruitment mechanisms**

20 out of 24 (83%) participants considered word of mouth, visiting the local chiefs, churches, talking to schools during open days, visiting schools, career guidance, exhibitions, and references by friends or previous students of the specific institution as the main informational image sources used to attract potential applicants when recruiting and selecting students to enrol at a TVET College.

With all the TVET Colleges participating in this study using the services of various radio stations in recruiting students, it was clear that radio stations, print media, and word of mouth were employed as the main informational image sources in recruiting potential applicants to enrol at TVET Colleges. No TVET College that participated in this study was utilising television to promote their institutions.

7.3.1.3 **Objective 3:** Investigate the main aspects that influence student persistence and academic performance at a TVET College (section 1.6; section 5.4.3; **Part D1** of the questionnaire – **Appendix J**).

- Responses to question 6: What are the main effective external factors considered important in supporting academic persistence and success at a TVET College?

Participants identified various extracurricular activities and the influence of persons who have studied similar courses as the two main external factors resulting in students studying at a TVET College.

- **Extracurricular activities**

The majority (96%) of participants identified various extracurricular activities as part of the important external aspects that encourage students to remain studying at a TVET College until completing their qualifications. Participants cited various examples of extramural activities taking place at their institutions, such as soccer, netball, athletics, rugby, and art and culture related events. Of the 23 participants who responded to this question, 19 (83%) indicated that their students are doing well in different extramural activities, and compete up to the national level which is also a motivating factor to these athletes to remain studying at these institutions (section 6.4.3.2). However, four of these participants confirmed that even though their students compete with other institutions, they do not qualify for the next level beyond the inter-college competitions.

These discussions suggest that the availability of student facilities and resources is likely to attract more students and enhance students' educational scope into noncurricular spheres as part of their career opportunities.

- **Influenced by persons who have studied similar courses**

33% of participants explained how students are motivated by those who previously studied similar courses. They cited examples such as that students are influenced by their brothers and sisters who graduated from the TVET College institutions and who are then employed close to their homes. Participants also pointed out that students are influenced by persons who previously studied at the specific TVET College and who then promote the specific institution to prospective students (section 6.4.3.2).

7.3.1.4 **Objective 4:** To determine the main student support services aspects that initially either motivate or inhibit student retention and success at the TVET College institutions (section 1.6; section 5.4.4; **Part D2** of the questionnaire – **Appendix J**).

The focus was on the activities that initially and continuously motivate students to study or hinder them from studying at a TVET College.

- Responses to question 7: What are the main student support services that either initially motivate or hinder students to continue studying or withdraw from the TVET College institutions?

Participants considered aspects such as student orientation in the form of an induction programme, career guidance and open day events, faculty and staff approachability, the provisioning of bridging programmes, academic support services initiatives, and partnerships with employers as the main student support services that initially influence student retention and success at TVET Colleges.

- **Student orientation in the form of an induction programme**

Although student orientation by means of an induction programme was identified as a factor in supporting academic persistence and success with TVET College training, the majority (88%) of the participants also had some misgivings on the status of this induction programme for novice students. Out of 21 participants, 6 (25%) indicated that their student induction programme was not effective as it should have been since it was scheduled for a short period, was poorly attended, and only new students attended. The remaining 15 participants confirmed, however, that their student induction programme was effective and critically important to all students, albeit needing some improvements for improved success.

In general, however, it was confirmed by participants that their College's induction programme for new entrants assists students to know all the important information about their roles and responsibilities, and prepares them for the TVET College institutions.

- **Career guidance and open day events**

Participants provided different views regarding the importance of relevant and effective career guidance in supporting academic persistence and success at TVET Colleges (section 5.2.4). 18 out of 24 participants did not mention relevant and effective career guidance as an important factor in supporting academic persistence and success at TVET Colleges. Of the six participants who acknowledged career guidance as important, four indicated that their career guidance was relevant and effective whereas the other two were unclear and not direct in their responses. It was clear that some TVET Colleges do not have fulltime career employees and utilise the services of temporarily appointed (internship) staff instead. There is an identified need for improving the provision of career guidance to the stage where it can influence students to make their own decisions about their own learning pathways.

- **Faculty and staff approachability**

The majority (88%) of the participants revealed that their working relationship with their students is good. Students can easily and freely approach the employees although they must make the necessary arrangements and follow the correct channels to avoid the misunderstandings and congestion. One Student Support Manager, however, admitted that although employees are friendly, sometimes there is a distance between some departments and their students.

- **Provisioning of bridging programmes**

Interviewees acknowledged the importance of a bridging programme for applicants without minimum entry requirements and assisting students who are not fully prepared for the TVET College environment to be capacitated with increased potential for possible success with TVET College tuition (section 6.4.3.2). Even though participants acknowledged the importance of providing a bridging programme for applicants without minimum entry requirements in preparation for TVET College education, they did not divulge details on the how and what of such a programme.

Ten participants (42%) indicated that their institutions do not provide such bridging programmes. The aim of emphasising this sub-question was to find out whether these institutions strictly adhere to admission requirements, and, if not, what do they do to assist such students to persist until completion of their studies? Although the TVET Colleges do not provide the bridging courses which were previously offered, they acknowledge the need for re-instating such provisioning in the form of a tutoring system and remedial support to improve student performance.

The Department of Higher Education and Training (DHET) is also in the process of addressing bridging needs of students with an introductory programme in the form of a Pre-Vocational Learning Programme (PLP) to ameliorate the urgent need for determining and implementation of the correct entrance assessments and procedures for the various TVET College programmes.

- **Academic support services initiatives**

During the interviews participants asserted and appropriately explained how their learning institutions provide various academic support services like extra classes in the afternoons and Saturdays, and peer tutoring as a means of increasing student persistence, retention and success.

With the exception of two campus managers involved who were indecisive in their responses, the other 22 participants indicated that they offer different forms of additional classes as part of academic support initiatives. Two out of 24 participants had contradicting views regarding their provision of academic support services either during the normal teaching and learning times, in the evenings or on Saturdays. Unfortunately, whilst one of these TVET Colleges offer such services on Saturdays when there is a need, the other institutions offer similar academic intervention programmes in the afternoons, not the evenings or on Saturdays.

41% of those who participated in the study confirmed that their institutions offer extra classes after the normal teaching and learning hours as a way of assisting students to cope with the pace and the amount of work the pace during their tuition times. In addition to the provision of extra classes, the majority (50%) of participants indicated that their student support services organise extra classes that are offered in the afternoons supported by tutoring programmes and remedial classes to effectively assist students who are in need of academic support.

- **Partnership with employers with employers**

Eleven out of 24 participants interviewed confirmed that their TVET College's partnerships with various stakeholders assist in preparing students beyond the academic activities at their institutions. From the 24 participants ten acknowledged partnerships with employers, a factor considered important in supporting academic persistence and success at TVET Colleges. The functional partnerships mentioned during the discussions include stakeholders such as different Environment

Education and Training Authorities (SETAs), government departments, municipalities, social workers, various industries, the South African Police Services and schools.

The extent to which these learning institutions partner with potential employers should prepare students for specific career pathways, student employability readiness, and self-employment.

It was clear that the TVET Colleges vary with regard to how they provide their student with induction programmes, relevant and effective career guidance, bridging programmes and partnering with employers to prepare students for TVET College education. In this regard, it is important to explore the reviewing of the relevance and impact of the current career guidance provided in both school and post-school environments.

7.3.1.5 **Objective 5:** To determine the main student support services aspects that continuously either motivate or hinder student retention and success at the TVET College institutions (section 1.6; section 5.4.4; **Part D2** of the questionnaire – **Appendix J**).

- Responses to question 8: What are the main student support services that continuously either motivate students to study or hinder them from continuing to study push them to withdraw from the TVET College institutions? (linked to part **D2** of the questionnaire – **Appendix J**).

Participants identified qualification of lecturers, rate of lecturer absenteeism and lecturer ethics as the main student support services that either continuously motivate students to study or hinder them from continuing studying or push them to withdraw from their TVET College studies.

Several interviewees (92%) pointed to shortcomings with regard to the quality of teaching and learning as one of the main student support services that continuously motivate or hinder students to study or withdraw from the TVET Colleges. Views ranged from lecturer qualifications being relevant or irrelevant, lecturers using meaningful or controversial methods of teaching, lecturers having or lacking expert knowledge of their subjects and lecturers having sufficient or insufficient practical experience in order to present practically inclined knowledge and skills effectively (section 6.4.4.2).

Participants pointed out that, modern learning institutions are based on the world of technology which is continuously changing and which is a motivating factor for today's students to engage with their studies. Lecturers who are predominantly comfortable with a textbook approach and those who are

not interested in using technology for teaching and learning endeavours are inhibiting students' chances to achieve optimal success with their studies.

- **Monotonous teaching methodology**

Related to applying technology with teaching endeavours, there was a wide range of views concerning the classroom management as well as how the lecturers present their lessons. The majority (88%) of participants pointed out that the shortage of qualified lecturers and the lack of relevantly qualified lecturing personnel have a negative impact on the methodology of teaching and learning. They cited various examples such as students complaining about lecturers who always read from their textbooks, lack of subject matter expertise, and lecturers who cannot present the necessary practical components as per the subject guidelines. From the 21 participants, eight (38%) emphasised that their institutions provide the necessary teaching and learning support materials to enhance teaching approaches, such as using videos to supplement knowledge facilitation in subjects that are theoretically inclined in order to enhance comprehension of the theory and make the lessons more interesting to sustain students' intrinsic motivation.

- **The language of teaching and learning**

Six out of the 24 participants who responded to this question pointed out that English as the medium of instruction is a challenge for both lecturers and students. Most of the lecturers choose to teach in their mother tongues which disadvantage students because students have to answer their examination question papers in English, and they will be required to communicate in English at the work place.

- **Lecturer ethics with lesson punctuality**

Participants revealed examples of a lack of lecturer ethics with regard to lesson punctuality including complaints from students about lecturers not coming to class and lecturers not conducting the whole lesson. However, not all participants shared the same view on lecturer ethics as some participants pointed out that they never receive complaints about lecturer conduct and that the lecturing cohorts are constantly trained on the importance of class attendance and being fully prepared for every lesson.

The above sum up the importance of ensuring that aspects such as quality of teaching and learning, monotonous and boring teaching approaches, language for teaching and learning, and lecturer ethics

with lesson punctuality are crucial to consider as main student support service factors that continuously motivate or inhibit student retention and success at TVET College institutions.

7.3.1.6 **Objective 6:** Ascertain any other additional aspects that may contribute towards the management of student recruitment, retention and success at the TVET College institutions.

In closing with regard to the semi-structured interviews, participants were asked to share any additional aspects relevant to the improvement of student retention and success with TVET College tuition. In this regard, participants pointed to factors such as the quality of preparedness of students coming from the schools, emphasis on student support activities, relevant career guidance from the early years at school, a good foundation in mathematics and English, the language of teaching and learning, and an option for students whose admissions are rejected by the university.

- Responses to question 9: Is there any other additional aspect that should be considered for improving student recruitment, retention and success at the TVET College institutions, and what are they?

The majority (92%) of participants confirmed that they do not have specific units that focus on student retention for their TVET Colleges. Campus Managers pointed out that their institutions experience big problems with regard to school education that represents a sub-standard education that is not preparing students properly for TVET College tuition. To a large degree students' time is wasted by this unpreparedness because of an inadequate school education resulting in students being frustrated. There is a need for providing effective career guidance that promotes TVET College education.

Participants also pointed to the complicated matter related to the availability of financial assistance and the retaining of students as many students use the National Students Financial Aid Scheme (NSFAS) for the mere sake of obtaining money without ever have intended to be committed to their academic progress. Instead of the financial assistance serving to motivate students to engage in their studies and contributing to their own development, many students consider their financial aid as spending money. Participants suggested the paying of transport fees directly to transport services transporting students to and from the TVET College.

Lecturer participants emphasised factors relating to aspects influencing the management of student recruitment, retention and success as pertaining to respecting one another, pursuing thorough capacity in mathematics and English for proper engagement with subject content and ensuring that equipped simulation centres are fully equipped for realistic practical training. Participants also emphasised the need for resourceful workshops, and a generally conducive campus environment that promotes a successful learning atmosphere as a cornerstone for employees who are fully accountable for their deeds in the sphere of zero tolerance for absenteeism and non-performance.

It was clear that the TVET Colleges which participated in this study do not have dedicated student support units that focus on factors related to student retention and success. It was also clear that the majority of students who are recipients of financial assistance use this financial assistance inappropriately.

- **An option for students whose admissions are rejected by the university**

With reference to the question whether applicants consider TVET College tuition as their first choice, the majority (88%) of the participants indicated that students prefer to study at universities but do not qualify for university entrance. Participants emphasised that the challenge for these students is that they do not know what their expectations for employment are because most of them do not know what the purpose of the TVET tuition is which emphasises the important need for proper career guidance relating to accurate information on calibration regarding the kind of training, the kind of employment, and the kind of abilities and aptitudes required.

7.3.2 Documents perused

The other research method pertaining to a qualitative research approach used was the perusal of different documents related to student enrolment and student progression and retention rate from the Department of Higher Education and Training (DHET) and the sampled TVET Colleges covering a three-year period from 2016 to 2019 (section 4.6.3.1; section 4.6.3.2; section 6.4; section 6.5).

The annual reports from the selected six TVET Colleges focused on the broad strategic goals of the DHET. The Post-School Education and Training Monitoring report (DHET, 2019: xvii & 58) indicated that the growth enrolment ratio rose from 358 393 to 705 397 students from 2010 to 2016 with the intention to achieve either the 25% target of the National Development Plan or the White

Paper on Post School Education target of 2.5 million TVET College students as suggested by the National Development Plan (NDP).

The implication is that the TVET College education is required to sustain the enrolment growth of approximately an annual 10% as from 2017 until 2030 which is an ambitious and unrealistic target unless these institutions pay special attention to student retention and success factors. No statistical information with regard to student retention and success linked to the estimated targets as suggested by the DHET was available at the research sites. It was clear that the selected TVET Colleges do not have a specific section focusing on student attrition and successes, developments and challenges with regard to student recruitment, retention and success.

7.4 SUMMARY

Based on all of the foregoing discussions and views, it is clear overall that the management of student recruitment, retention and success at the TVET College institutions is complex and that the impact of both internal and external stakeholders is far beyond what learning institutions employees believe. The findings and discussions in this chapter should be read simultaneously with the summary and conclusions presented in Chapter 8.

The main concern regarding the effective management of student retention and success at TVET Colleges can be expressed thematically as institutional image and reputation influencing the management of student recruitment, retention and success; institutional information sources as an influencer of student recruitment, retention and success; the main factors that influence student persistence and academic performance; and the main student support services factors that initially either motivate students to study or hinder them from continuing to study or push them to withdraw from TVET College institutions.

Different sub-themes were incorporated under these main themes. The first sub-theme concerns the main image and reputational factors that influence students to choose particular TVET Colleges rather than another are safety and security, facilities provided at the TVET Colleges, school visitations, ease of getting from and to the College (transport), the general cleanliness of the campus, and the geographical location of the TVET Colleges.

The main institutional communication sources attracting prospective students to enrol at the specific TVET College include sub-themes such as the use of radio stations, different print and electronic media, and word of mouth as the main information sources in reaching their prospective students.

Courses that match students' expectations, financial assistance, potential well-paying jobs after completing studies, extracurricular activities, and the influence of persons who studied similar courses are sub-themes focusing on factors that support academic persistence and success at TVET Colleges.

The main student support services aspects that initially either motivate or hinder students to continue studying or withdraw from TVET Colleges are the courses that prepare students for employment opportunities, student orientation in the form of induction programme, career guidance and open day events, the provisioning of bridging programmes, faculty and staff approachability, academic support services, partnerships with employers, and academic support services initiatives.

Individual student's learning experiences, inadequate and relevantly qualified lecturers, social involvement, and lecturer ethics with lesson punctuality as the main student support services that continuously motivate or hinder students to study or withdraw from TVET Colleges.

These research findings are directing recommendations and conclusions presented in Chapter 8 as the final chapter of this study.

CHAPTER 8

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

The previous chapter discussed the research findings based on data qualitatively collected. This final chapter interprets the research findings based on the literature study and the empirical investigations, draws conclusions from these findings, and then makes recommendations. The limitations of this study are also presented and recommendations for future research suggested. In determining if the research questions and objectives formulated in chapter 1 to guide this study are answered (questions) and met (objectives), this chapter concludes with an evaluation of the research results obtained for each research objective, but excluding aspects which are more operational in nature.

8.2 MAIN FINDINGS ON INSTITUTIONAL IMAGE AND REPUTATIONAL ASPECTS INFLUENCING THE MANAGEMENT STUDENT RECRUITMENT, RETENTION AND SUCCESS AT TVET COLLEGE INSTITUTIONS

The post-school environmental landscape is continuously changing. As a result, learning institutions face major demographic shifts in the student population, new technology influxes, and pressures created by the global economic demands that have an impact on students, faculty and employees.

The landscape of the South African Technical and Vocational Education and Training (TVET) College education evolved towards increasing student access and improving the quality of technical and vocational graduates. In an endeavour to ensure that these learning institutions become and remain the TVET Colleges of choice, it became increasingly important to know and understand what attracts and eventually makes potential students to decide to enrol and remain studying at these institutions. The main research findings of this study provide information regarding the management of student retention and success as highlighted next.

8.2.1 Image and reputational aspect influencing the management of student recruitment, retention and success at TVET College institutions.

The majority of TVET employees are aware of and know about the low student retention, success and throughput rates, and the high student dropout rates which are attributed to the multiple

challenges faced by TVET Colleges such as safety and security, the general cleanliness of the campuses, transportation for getting to and from the Colleges, facilities provided at the Colleges, and the geographical location of the institutions (section 5.2.2; section 6.4.1, Table 5.3; Table 6.2). With regard to institutional reputation and image factors influencing students to choose a specific TVET College rather than another, safety and security at the College, the general cleanliness of the campus, and transport to and from the college are important factors (section 5.2.2; section 6.4.1). Facilities and activities at the College such as workshops, libraries, laboratories and student housing and visits to schools by the College for marketing purposes had a pertinent influence on student choice (section 5.2.2; section 6.4.1). The geographical location of the institution also represents a main institutional reputation and image factor influencing students to choose a specific TVET College rather than another (section 5.2.2; section 6.4.1.2). These empirical findings supported literature study findings discussed in chapters 1 and 2.

The image and reputational aspects influencing the management of student recruitment, retention and success at TVET Colleges such as safety and security, educational facilities, the cleanliness, transport possibilities, and the geographical location of these institutions relate to the ecological systems theory of Bronfenbrenner's macrosystem layer as it includes the societal culture surrounding as students have to adapt to the new academic environment as they continue with their studies until they achieve the goals.

8.2.2 Implications of image and reputational aspects influencing the management of student recruitment, retention and success at TVET College institutions.

Knowing the student retention and success statistics and understanding their impact, they need to be addressed within both the academic and social systems functioning of the TVET College institutions. Learning institutions striving to increase student recruitment, retention and success must invest in staff and resources related to student needs as identified through institutional reputation and image factors. TVET Colleges must strategically reposition themselves based on the known causes of student dropout and implementation of appropriate interventions to counter attrition (section 5.2.2; section 6.4.1.2, Table 5.3; Table 6.2).

TVET Colleges have numerous options to respond to institutional image and reputational aspect sentiments influencing students to choose specific TVET Colleges rather than others. Although the geographical location of an individual institution plays a vital role in enhancing the institution's reputation and image, factors relating to safety and security at the College, the general cleanliness of the campus, the availability of transport, and facilities provided at the institution are equally important

factors influencing student choice and eventual success with studies. Visits to schools for marketing purposes should crucially be considered as a strategy to improve public perceptions about TVET College institutions education (section 5.2.2; section 6.4.4.1).

8.2.3 Recommendations about image and reputational aspects influencing the management of student recruitment, retention and success at TVET College institutions.

The institutional environment encompassing everything tangible on a campus such as infrastructure, equipment, furniture, signage and landscape serves as a set of symbols influencing prospective student choice. Related to this set of symbols is the emphasis of society on the physical appearance of institutions including the condition and capacity of physical buildings, rather than the academic reputation in terms of student performance, as an attraction for prospective stakeholders (section 5.2.2; section 6.4.4.1).

Recommendations linked to the institutional image and reputational aspects that influence the management of student recruitment, retention and success are treated next.

- **Safety and security at Colleges**

The results of this study support the views that students are vulnerable when living in unsafe conditions (section 3.4.4). Female students in particular felt some degree of lack of safety on campus and in student residences relating to verbal, physical and emotional assault. The feeling of vulnerability and the concerns of safety in the living conditions of these women are justified by literature reporting incidents of rape in different post-school institutions (section 5.2.2; section 6.4.1.2).

This study on TVET Colleges revealed that both employees and students consider a safe and secure learning environment as one of the main reputation and image factors for student recruitment, retention and success at TVET Colleges. Safety and security are crucial influential aspects for student choice as students ranked safety and security as important factors when deciding on a TVET College for enrolment purposes (section 5.4.1; section 6.4.1.2).

An important aspect regarding the country's response to economic needs is the strategic positioning of TVET colleges for training youth who require easy access to training possibilities. Part of

producing competent and skilled graduates for the labour market is the sharing of facilities with industry to introduce students to work conditions. Increasing access to these learning institutions with well-developed associations with real work practice poses complications for institutional safety and security relating to criminal activities which demands that safety and security management be treated as a top priority ensuring that exposure to real work conditions occur in an educational environment that is safe.

The safety and security risks at TVET Colleges can be abated by the use of privately owned security company personnel supported by the state intelligence security services. Institutions must invest in high level safety and security measures that include installation and regular monitoring of CCTV Cameras, toll-free emergency contacts linked to campus security management, sufficient lighting at night and electronic boards that regularly update stakeholders on safety rules and regulations.

- **Facilities provided at TVET College institutions**

Respondents rated the quality of academic facilities as the second most important factor influencing their choice of TVET College (section 5.4.1; section 6.4.1.2). In this regard, institutions of higher learning should pay special attention to the recapitalization and regular maintenance of available libraries, laboratories and student housing facilities. Ensuring the provisioning of accredited workshops on a continuous basis was also determined as crucially important (section 5.4.1; section 6.4.1.2).

This demands that institutions establish facility management units that focus on the effective management of teaching and learning resources, ensuring appropriate lecture-rooms, well-equipped workshop infrastructure, well-issued computer laboratories, and well-functioning simulation centres and effective control of the constructive utilisation of these provisioning. TVET College leadership must partner with applicable donors to adopt some of these facilities or provide some of these infrastructures to be named after the related donors. Such partnerships would enhance the institution's image and brand the partnership between the institution and the TVET College. A constant focus on good quality academic facilities will enhance student recruitment and success.

- **School visits**

College or campus visits to schools is an influential aspect assisting prospective students to decide on their choice of TVET College since these visits allow prospective students with their families to

consider institutional characteristics and the quality of the courses provided (section 2.6.3). In this regard, and to improve student recruitment, retention and success, institutions involve former student graduates in their marketing endeavours to visit local high schools as an effective way of reaching out to prospective students (section 5.4.1; section 6.4.4.1). Making use of people who previously studied at the institution is appealing to responsive high school learners and their teachers as peer examples of successful studying serves as a convincing factor for one's own possible success with studying. Such close interactions with previous students engender good relationships between the college and the specific high school influencing, prospective student choice positively.

By adopting feeder schools accompanied by continuous visits to these schools to regularly provide information concerning the latest developments and new programmes at the College, this enhances good communication and possible recruitment that eventually culminates in student retention and success. Marketing endeavours must constantly and purposively target their prospective students and continuously improve their information sessions as they visit their targeted schools because collaborative relationships with targeted schools provide high school students with a long-term positive image of the College thus inspiring them to engagement with that College. This is because TVET College visits to schools provide students with valuable opportunities to consider the college environment and to become familiar with the college set up as communicated by previous students who attended those campuses acting as part of the marketing team.

- **The general cleanliness of the campus**

In this study, students supported the views that an individual's connection to a specific environment directly affects the individual's perception of that environment (section 2.5.1). Learning institutions with a well laid out environment and a neat appearance subconsciously influence prospective students and stakeholders to be associated with that institution (section 5.4.1; section 6.4.1.2). Clean and neat environments attract prospective students and other stakeholders, and promote patriotism confirming that learning institutions that are focused on successful recruitment and retention of their students and other stakeholders must invest in constantly maintaining a state-of-the art image of their institution.

- **Ease of getting to and from the college (transport possibilities)**

The majority of TVET College students travel to and from their learning institution by public transport which is available in most areas, but especially in communities where students reside close

to the TVET College. Therefore, mutual partnerships with public transport services in order to ferry students to their institutions are crucial (section 5.4.1; section 6.4.1.2). In this regard, TVET College institutions should focus on arranging safe, reliable and effective modes of transport for students during normal lesson hours, but especially also during those hours beyond the normal teaching and learning periods.

- **The geographical location of the institution**

Location, size, and standardised ranking are important aspects influencing students' selection decisions and eventual success with college training (section 2.5.1). Each one of these characteristics may influence prospective students differently in making a decision concerning whether or not to apply for and enrol in a specific learning institution. With this study, the TVET College location where employment opportunities are easily accessible was rated important for possible selection decisions (section 5.4.1; section 6.4.1.2). Further, students who can afford it, prefer institutions located in urban areas whereas those who cannot afford it resort to the only option available, namely the institution closest to home (section 5.4.1; section 6.4.1.2). The factor of being located in an urban area serves as a determinant geographical location factor for TVET Colleges who envisage to establish new sites or to expand existing campuses.

8.3 MAIN FINDINGS ON INSTITUTIONAL COMMUNICATION SOURCES USED IN RECRUITMENTING PROSPECTIVE STUDENTS TO TVET COLLEGE INSTITUTIONS

For effective communication with prospective students and interested stakeholders, it is important that learning institutions continuously evaluate their methods and media platforms to reach their clients (section 5.4.1; section 6.4.1.2; Table 5.7; Table 6.2). It is imperative that institutions ensure that the correct information reaches the targeted students by determining how best to use communication information sources.

8.3.1 Conclusions regarding communication sources influencing the management of student recruitment, retention and success at TVET College institutions.

The institutional image and reputational sources influencing the management of student recruitment, retention and success at TVET Colleges includes safety and security, the condition of academic

facilities, the efficiency of the College's website, the ease with which schools could visit the College during open days, and the cleanliness and neatness of premises (section 5.4.1; section 6.4.2.2). Related to these sources are additional information sources in order to influence student enrolment, retention and success. These additional sources pertain to TVET College publications, ease of communication with the TVET College, the status of the College as the only TVET College providing for the student's specific academic needs, the location of the TVET College where employment opportunities are easily accessible within the specific location, and the ease of getting home from the specific TVET College. These determinants for student selection, retention and success were then supplemented by visits to prospective students at high schools, the location of surrounding towns or cities, student residence options, on-campus interviews with admission staff, advertisements on radio and television, and advertisements in the printed media (newspapers, magazines) (section 5.4.1; section 6.4.2.2).

Advertisement through radio and television, print and electronic media, and word of mouth which represent some of the main communication sources used in recruiting prospective students to enrol at TVET College institutions form part the ecological systems theory of Bronfenbrenner's mesosystem level that promote interactions between various groups people.

8.3.2 Implications arising from communication sources used in recruiting prospective students to enrol at TVET College institutions.

When TVET Colleges understand the what, why and how of communication sources influencing the management of student recruitment, retention and success, they can use these sources skillfully for improved performance and to reposition themselves as institutions of choice. TVET Colleges disseminate important information through radio stations, different print and electronic media, and word of mouth (section 5.4.1; section 6.4.2.2). However, TVET Colleges must constantly consider all the factors influencing the management of student recruitment, retention and success in order to ensure that they accurately reach the targeted prospective student population. These institutions must also constantly reflect on the relevance of their current communication sources to the management of recruit students because developments and changes in the media environment influence students' needs and preferences and marketing teams must be aware of these changes to be responsive to the most relevant and impactful communication sources. In this regard, TVET Colleges must sensitise their marketing teams to the most useful communication sources to ensure applicable information is effectively disseminated to prospective students.

Irrespective of the type of information source used in communicating with the targeted student population, the message must be accurate, relevant and perceived the same way across all various sources. Applied to TVET College communication, institutions must have a centrally coordinated and consistent source of communication for all the institution sites. For this reason, to deliver accurate and undistorted information, all promotional and marketing materials must first be vigorously edited by the communication and marketing section of the institution. Depending on the conditions at the specific learning institution regarding the affordability of communication sources being used, recommendations are discussed next.

8.3.3 Recommendations regarding communication sources used in recruiting prospective students to enrol at TVET College institutions.

Post-school institutions continuously seek to apply appropriate and effective channels of communication to prospective students. This occurs through various platforms of communication as methods of student recruitment and marketing which have expanded significantly (section 2.9.3.1). The following aspects are considered main communication sources that influence student recruitment, retention and success at TVET College institutions.

- **Advertisement through radio and television**

Although students did not contemplate advertisements through radio and television as very important, TVET college employees believed them to be effective, but they did not utilise television that frequently (section 5.4.1; section 6.4.2.2). As radio advertisements represent excellent opportunities for institutions to quickly and effectively reach prospective students and other stakeholders throughout the city and in the rural communities, TVET Colleges must continuously improve their communication materials advertised by radio stations, whilst also pursuing the possibility of utilising television as mode of communication to prospective students.

- **Print and electronic media**

Print and electronic media constitute the combination of the institutional publications, newspapers, magazines, and website and are predominately used as tools for disseminating information and making key announcements with regard to TVET College functioning (section 5.4.1; section 6.4.2.2). However, as the utilisation of print and electronic media varies from one institution to another, using

print and electronic media in reaching their targeted prospective students, TVET Colleges must continuously review the design and content of their promotional materials, how to disseminate the materials to the targeted groups, what the cost involved is with the communication of a specific matter and what the most appropriate timing is to communicate important information to students.

- **Word of mouth**

Word of mouth is one of the important ways to communicate and influence prospective students who apply to enrol at a TVET College since many students rely on the advice and feedback from parents, older siblings, friends, and career guidance counsellors (section 2.9.3.2)

. In order to apply word of mouth effectively as an advertising mechanism, TVET Colleges must be alert to the utilization of former students as savvy recruitment agents assisting with the gathering of information from multiple sources so that accurate and relevant information is communicated to prospective students (section 6.4.2.2). When students understand the college processes and the studying climate that is best suited for their success, student retention and success will engender career prospects and a better quality of life for many citizens. As word of mouth is an important communication source to influence the management of student recruitment, retention and success, TVET Colleges must prepare their career exhibition information sessions skillfully when they visit the targeted groups at their prospective schools.

8.4 MAIN FINDINGS ON FACTORS INFLUENCING STUDENT PERSISTENCE AND ACADEMIC PERFORMANCE AT TVET COLLEGE INSTITUTIONS.

As the functioning of learning institutions is predominantly based on student persistence and academic performance, retention and success resulting in increasing the management of student retention and success at TVET Colleges remains a continuous pursuit.

The next section reports on the main factors influencing student persistence and academic performance at TVET College institutions (section 5.4.2; section 6.4.1.2; Table 5.8; Table 6.2 linked to **Part C** of the questionnaire – **Appendix J**).

8.4.1 Conclusions on the main factors influencing student persistence and academic performance at TVET College institutions.

Students considered the course they intended to study, the availability of financial assistance (bursary, loans, scholarships), potential employment after completing their courses, advice from family members and friends who studied at a TVET College, and courses matching their expectations as the most important factors for choosing a TVET College and experiencing eventual success (section 5.4.2; 6.4.1.2, section 6.4.5). These factors are supplemented by the availability of real employment opportunities to qualifying students, encouragement from government to enrol for a specific qualification, a feasible study option for students whose admissions are rejected by universities, emphasis on the importance of technical and vocational education, and overall perceptions of employers about the quality of training at TVET Colleges (section 5.4.2; section 6.4.1.2). Although considered to a lesser degree, students' choices of institution and eventual success with studying are also influenced by the motivation from previous high school teachers, the ease of access to faculty, the possibility of alternative entry requirements, affordability of studies for the family, the nature of social life at the institution with relating extracurricular activity possibilities, and the availability of pre-college and college entrance preparatory programmes (section 5.4.2; section 6.4.4.1). Of these factors, extracurricular activity possibilities and the influence by persons who have studied similar courses are significant to encourage students to remain studying at the specific TVET College (section 5.4.2; Table 5.8; Table 6.2).

The main factors that impact student persistence and academic performance at TVET College institutions related to the ecological systems theory of Bronfenbrenner's mesosystem level are aspects such as courses that match students' expectations, financial assistance, potential employment after completion of studies, extracurricular activities, and the influence of persons who have studied similar course as they also influence student retention and success.

8.4.2 Implications arising from the main findings on the main factors influencing student persistence and academic performance at TVET College institutions.

Understanding the importance of the various institutional communication sources that influence the management of student recruitment, retention and success can assist and reposition TVET Colleges in becoming the institutions of choices. The following are the recommendations regarding the main factors that influence student persistence and academic performance at TVET College institutions.

8.4.3 Recommendations regarding factors influencing student persistence and academic performance at TVET College institutions.

With reference to factors influencing the management of student recruitment, retention and success, and understanding these factors in order for TVET Colleges to reposition themselves as institutions of choice, it is important to understand that enrolling at a post-school institution is a significant achievement in any family. However, this enrolment achievement must be accompanied by persistence with studying to enjoy eventual success. The following recommendations are made to improve the management of student retention and success.

- **Courses that match students' expectations**

An awareness and knowledge of student expectations reduces student stress, improves academic performance, encourages social relations and integration, and improves students' sense of belonging (section 3.7). When students who enrol at higher education institutions have unrealistic expectations, particularly not understanding the magnitude of studying and the effort demanded for eventual success, attrition is high and throughput rates are low (section 2.5.2). Not understanding the challenges associated with studying is closely related to student personality and associated social life. Students enter post-school institutions with their own expectations based on their previous learning experiences which impact on how they respond to the institutional environment and also act as precursors of student course selections (section 3.3.1.4). Expectations and previous learning experiences influence student responses to academic surroundings and their decisions on retention in specific fields of study and at specific Colleges.

With regard to this study, students who felt that their expectations were addressed remained studying until completion of their courses, whereas students whose expectations were not realized tended to dropout (section 5.4.2; section 6.4.3). The fact that students put a high premium on course selection matching expectations, confirms the importance of TVET Colleges continuously re-evaluating their academic intervention mechanisms pertaining to matching students' expectations with appropriate courses thus matching student expectations and student learning experiences.

- **Financial assistance**

Financial assistance is an important factor for student retention and success (section 2.5.6). Students considered the availability of financial assistance such as bursaries, loans and scholarships as crucially important influencing their access, retention and success at TVET Colleges.

Financial assistance is especially crucial for students from low-income backgrounds. A strong financial aid unit is an indication of a well-functioning TVET College where students with financial needs are assisted. As financial assistance is one of the main factors determining student retention and success at TVET Colleges (section 5.4.2; section 6.4.5), the effective and appropriate management of financial assistance in terms of bursaries, scholarships, and loans to deserving applicants is important.

Depending on the availability of resources and their specific institutional situation, learning institutions must regularly and widely publish their available financial assistance to prospective students and stakeholders. Institutions must also have effective arrangements for monitoring and controlling of financial assistance in order to ensure that available financial aid is allocated applicably and appropriately with these allocations monitored in terms of constructive utilization. The general concern with regard to allocations of the National Scheme Financial Assistance (NSFAS) and irregularities occurring with these allocations (section 5.4.2; section 6.4.5) must be constructively managed with meticulous and consistent monitoring actions.

- **Potential employment after completion of courses**

Employment prospects for students who have successfully completed their courses are important (section 5.4.2; section 6.4.1.2). As the possibility of employment with the obtaining of an appropriate qualification is an important factor that enhances the management of student retention and success, management and student councillors at TVET Colleges fulfil a crucial role to advise prospective students informatively during career guidance sessions.

- **Extracurricular activities**

Social life status including various sporting codes, debate, drama, and music influences the management of student retention and success at TVET Colleges positively (section 5.4.2; section 6.4.3.1). In order to utilize social life status as a factor enhancing the management of student

retention and success optimally, institutions must be focussed on incorporating various sporting codes with related awards and prizes and communicate these actions clearly in their promotional materials and various media platforms. With reference to being focussed on providing for holistic well-being, the establishment of institutional fitness centres focussed on health and fitness enhancement and short courses in health literacy can engender improved health, which in turn can influence the management of student retention and success positively.

- **The influence of persons who have studied similar courses**

The influence of peers plays an important role to motivate prospective students to persist with their studies and perform satisfactorily until completion and obtainment of their qualifications (section 3.4.3). Students are influenced by family members, friends, and the network of people they trust in their decision to select a specific learning institution and study certain courses. This influence is closely related to the level of education prevailing in family circles as parental level of education determines the nature of the search for the appropriate institution to enrol with and the kind of decisions on the ‘what and why’ of courses to enrol for (section 5.4.2; section 6.4.3.1). Furthermore, the mother’s education in particular is the most influential factor determining children’s academic performance, level of post-school education, and ultimate career pathing (section 3.4.5).

With this study, it was found that the advice from family members, guardians, and friends who have studied similar courses served as one of the most important factors enhancing student perseverance and success at TVET College institutions (section 5.4.2; section 6.4.3.1). This supports the views of TVET College employees who confirmed that students’ involvement with alma-mater of family members who previously studied similar courses encouraged students to persist until the successful completion of their studies (section 5.4.2; section 6.4.3.1). It is therefore recommended that with major institutional functions TVET Colleges must involve peers and other people who studied similar courses to solidify career guidance and assist prospective students with decisions on institution and course selection.

8.5 MAIN FINDINGS ON STUDENT SUPPORT SERVICES ASPECTS THAT INITIALLY EITHER MOTIVATE OR INHIBIT STUDENT RETENTION AND SUCCESS AT THE TVET COLLEGE INSTITUTIONS.

Findings were drawn from both students and TVET College employees as a meaningful way of determining student support factors that either initially motivate or hinder students to continue studying or to withdraw from studying at a TVET College (section 5.4.3; section 6.4.3.2; Table 5.9; Table 6.2 linked to **Ppart D1** of the questionnaire – **Appendix J**).

8.5.1 Conclusions on student support services aspects that initially either motivate or inhibit student retention and success at TVET College institutions.

Factors that initially ensure student perseverance and performance at TVET Colleges were determined as being enrolled in courses that purposefully prepare students for employment opportunities, being enrolled in courses with course content that matches students' expectations of knowledge gain, induction and orientation programmes that prepare students for the College environment, relevant career guidance offered immediately after registration, and adequate knowledge of the subject matter obtained through focused studying (section 5.4.3; section 6.4.4.1). These factors for initial perseverance and success with studying are supplemented by factors pertaining to a conducive campus climate for diverse students with different home and school backgrounds, potential employers regularly addressing students at the campus, effective academic support activities such as additional classes for revision and enrichment purposes, and schools and TVET Colleges jointly preparing students for College education based on aligned tuition and regular visits from Colleges to their feeder schools (section 5.4.3; section 6.4.4.1; section 6.4.5).

Clear communication to secondary school learners about the College's entrance requirements, a flexible mode of study such as afternoon, evening, and Saturday classes to counter employment obligations, provision of ongoing college support, partnerships with industry and businesses, the availability of a bridging programme for applicants who do not meet minimum entry requirements, and friendly administrative and academic staff are further factors enhancing initial perseverance and acceptable performance with TVET College tuition (section 5.4.3; section 6.4.4.1; section 6.4.5).

The main student support services aspects that initially either motivate or inhibit student retention and success at the TVET College institutions related to the ecological systems theory of

Bronfenbrenner's microsystem level are factors such as courses that prepare students for employment opportunities, student orientation, career guidance and open day events, bridging programmes, faculty and staff approachability, academic services, and partnerships with employers as they impact on student retention and success.

8.5.2 Implications arising from student support services aspects that initially either motivate or inhibit student retention and success at TVET College institutions.

TVET Colleges must ensure that recruited students are prepared to successfully achieve their academic goals within the prescribed period of enrolment for the specific course. It is crucial that TVET Colleges know and understand exactly what the importance is of various student support factors that either motivate or hinder students to persevere with their studies immediately after the students have finalised their enrolment processes and have started with their studies.

In this regard, TVET Colleges must be focused on offering courses that prepare students for employment opportunities, on providing induction programmes to orientate novice students to their new environment, and on providing relevant career guidance during open day events. In order to ensure that students experience initial success with their studies which would enhance perseverance and eventual success, TVET Colleges must offer bridging programmes to students not sufficiently prepared for college training, encourage faculty and administrative personnel to be approachable at all times, ensure that academic support services are constantly monitored for efficiency, and arrange for partnerships with employers in order to provide relevant training opportunities for students. TVET Colleges should critically analyse their current student support interventions, recruitment and marketing strategies to strengthen areas of student support ensuring students enjoy initial success with their study endeavours.

8.5.3 Recommendations regarding student support services aspects that initially either motivate or inhibit student retention and success at TVET College institutions.

The following are recommendations pertaining to factors that initially motivate or hinder students to continue studying at a TVET College.

- **Courses that prepare students for employment opportunities**

Findings from this study echo the views that contextualised learning assists students to experience value in the courses they are studying (section 2.5.7). Students perform poorly when a task has no meaning for them. Courses that prepare students for employment prospects motivate them to persist studying until successful completion of their courses. Students enrol in institutions with the purpose to either get employed immediately or to be provided with employment opportunities once they have successfully completed their studies. Therefore, while still at school, prospective students must be encouraged and advised to be fully prepared for post-school education by selecting relevant subjects that would assist them to correctly enrol for courses with job opportunities. Further, institutions must ensure course content that is relevant to general labour market engagement through regular liaison with industry to review their curriculum offerings. TVET Colleges should also jointly work with industry in developing student opportunity programmes in response to the much needed soft skills related to work etiquette know-how.

- **Student orientation with induction programmes**

Student retention and success are enhanced through early engagement with students by means of pre- and post-entry student induction activities in order to understand students' diverse backgrounds and aspirations and to provide genuine and relevant assistance with engagement in curricula activities (section 3.3.1.1). With these induction programme activities, students are introduced to college employees and other students and they are provided with opportunities to assimilate with a range of activities that encourage perseverance and success and develop a sense of belonging to the institutions they are enrolled with.

The provision of effective orientation in the form of student induction benefits students by preparing them for their courses by alerting them to what is expected of them which helps them to adjust to the institutional environment. With this study, student orientation in the form of an induction programme was considered highly important as motivation to persevere with studies (section 5.4.3; section 6.4.4.1).

TVET Colleges must therefore focus on continuously improving their student orientation and induction programmes as it is essential and important for new students to be psychologically prepared for the TVET College tuition education. Student orientation and induction endeavours

must satisfactorily respond to the questions of first year students in relation to the institutional courses, employees, facilities and student support services available for needy students. Failure to positively respond to basic questions related to pursuing student persistence and success will result in students feeling alienated and eventually drop out before completing their qualifications. As current student orientation programmes are without credit and not mandatory resulting in students' poor attendance especially when these sessions are poorly organised and irrelevant in the sense of not providing students with meaningful knowledge related to learning at the specific institution (section 6.4.4.1), TVET Colleges must design short courses that link student orientation programmes with course credits engendering knowledge and skill gain by attendance.

- **Career guidance and open day events**

Schools visiting colleges is an influential factor in student selection decisions (section 2.5.7). In line with the literature regarding students' need for proper student guidance, students complained about the quantity and quality of advice and career guidance provided to them (section 6.4.4.1). As career guidance and open day events are important as provided by means of Colleges visiting schools or schools visiting Colleges, TVET Colleges must continuously improve the quality of their career guidance and open day packages. Career guidance and constructive advice play a vital role in engaging students with the new institutional environment motivating them to persist and successfully complete their studies eventually (section 5.4.3; section 6.4.4.1). However, appropriate and relevant subject choices must start at school level already. The presence of career pathing gaps is due to the misalignment of subject choice from primary school through to post-school institutions. The South African system of education must develop a structured career and coaching hub that assists in preparing school learners at various grades for career and employment opportunity possibilities. In this regard, the review and revision of school curricula must include inputs from industry, post-school institutions, and career guidance experts to develop meaningful curricula that minimize the existing gap between the technical and vocational-oriented and academic-oriented education system. There must be better synergy between different institutions of learning such as basic education (both primary and high schools), TVET Colleges and universities.

- **The provision of bridging programmes**

Bridging programmes can improve student retention and success (section 2.6.1). With this study, TVET employees emphasised the need to develop and implement pre- and post-college entrance

preparatory programmes. These programmes must focus on active learning, critical college study skills, effective time management, stress management techniques, healthy relationships between students and college employees, awareness of the college environment, establishing a sense of belonging, and fostering self-efficacy for TVET College studies (section 5.4.3; section 6.4.4.1). These bridging programmes must focus on informing new students about College culture, help students with their academic and career decisions, and assist with developing study habits that are related to performing well. For TVET Colleges that are focused on increasing student retention and success through offering bridging programmes, these colleges must be focused on continuous review of their offerings while strictly adhering to their student admission policies particularly where these policies pertain to areas that require mathematics, English and vocational subjects. TVET Colleges must develop bridging courses for students between the senior band of high school and the first year at the TVET College. These bridging programmes must be focused on acclimatizing students to the post-school campus environment relating to assisting unprepared students with study methods in order to ensure that they become accustomed to the pace of work demanded from college-level engagement.

- **Faculty and staff approachability**

Apart from TVET College institutions themselves, the community, other learning institutions, and policy makers all have an influence on students' decisions about their post-school learning. Prospective students' decisions on where and whether to register at a specific college, what to study, and whether to persist and complete their studies are all based on the human, financial, social, and cultural capital available to them throughout their post-school educational journey (section 3.3.1.3). For this reason, interactions and advice from family members, college counsellors, and friends influence students' decisions on College and course selection (section 5.4.3; section 6.4.4.1). The relationship between students and faculty members are vital for student success as this relationship pertains to faculty approachability (section 3.4.6). College staff's approachability involves faculty members being available and accessible to students both inside and outside class, especially when students need crucial learning support, because the more contact students have with faculty members, the better the chances that these students will persist until graduation. The results of this study support the argument that students' awareness of the college education, and constructive relationships between students and lecturers promote student retention and success (section 3.7; section 5.4.3; section 6.4.4.1).

For TVET Colleges to increase their students' retention and success rates, their faculty members must be approachable. This is arranged by adhering to regular office hours and promptly responding to students' e-mails. Employee approachability also means that faculties must be easily reachable outside of the class situation by means of different media to assist with learning through the discussion of assignments, providing prompt and relevant feedback on work submitted, assist with career path suggestions and with student employment opportunities. Promoting a culture of friendly and accessible faculty members engenders an ambience of sharing and caring resulting in a positive influence on student persistence and success.

- **Academic support service initiatives**

The statistics of TVET Colleges on pipeline students reflect poor academic performance and low student retention accompanied by a lack of educational intervention, resulting in a debilitating effect on the individual student, the national economy, and the country's global competitiveness at large. As many colleges provide their students with a wide range of academic support opportunities and resources for improved performance, students can expect their institutions to provide them with the necessary academic support interventions to assist them to persevere with their studies until successful accomplishment (section 3.3.1; section 6.4.4.1). TVET College institutions must provide academic resources to promote student success with these resources being focused on students who are not adequately prepared for the academic challenges of TVET College studies.

- **Partnerships with employers**

Many students cannot secure suitable work placements to gain experiential learning because of limited opportunities and inadequate networking (section 2.5.7). Part of the technical and vocational curriculum is the inclusion of assessment methods focused on theory and practical components of the curriculum in order to equip students with a holistic competency for the work environment. Workshops and related simulation centres must therefore be sufficiently equipped with relevant resources that prepare students for the real working environment. In this regard, the majority of TVET College qualifications require that students complete their experiential learning component in real working environments. However, TVET College workshops are inadequately resourced and many lecturers lack the capacity to train students adequately as prescribed by the curriculum (section 5.4.3; section 6.4.4.1). Because of this lack of capacity, many TVET College lecturers are reluctant to participate in work-integrated learning (WIL) programmes which are focused on improving

knowledge and skills based on the most recent industrial developments. As TVET Colleges struggle to adequately place all students at relevant workplace environments, they must establish mutual partnerships and links with businesses and industries to collaboratively develop curricula that comprise course content that improves student employability and enhances institutional reputation and image. These partnerships must focus on gradually infusing work integrated learning into formally developed learning programmes that benefit the country's economic needs.

A country that is serious about the quality of its graduates focuses on achieving this quality through work placement involvement that is steered by government departments that initiate the establishment of partnerships between business, industry, and TVET Colleges. This action demands synergy between TVET Colleges and industry with regard to the training of the country's workforce. Collaborative agreements with industry are important to ensure the relevant placement of students to increase student employability opportunities. In order to improve TVET College lecturers' industrial experience, TVET Colleges must develop and implement work integrated learning (WIL) programme guidelines as a compulsory requirement for each TVET College lecturer's continuous personal development programme.

8.6 MAIN FINDINGS ON STUDENT SUPPORT SERVICES ASPECTS THAT CONTINUOUSLY EITHER MOTIVATE OR HINDER STUDENT RETENTION AND SUCCESS AT TVET COLLEGE INSTITUTIONS.

In order to understand the management of student retention and success, factors of student support that enhance or hinder student perseverance and eventual success with TVET College education studies on a continuous basis are important to consider.

8.6.1 Conclusions on student support services aspects that continuously either motivate or hinder student retention and success at TVET College institutions.

Student respondents perceived the academic performance of individual students who encouraged them to focus on studying hard, the quality of teaching and learning that integrate theory and practice, constructive feedback on students' progress, effective career guidance, academic support services, and arrangements for social involvement as pertinent factors that motivated them to persevere with their studies (section 5.4.4; section 6.4.4.1; section 6.4.5). In this regard it was important for students to receive prompt feedback on their assessments, to enjoy adequate student support service facilities

and to receive assistance with language in order to have a good command of the language of instruction (section 5.4.4; section 6.4.4.1; section 6.4.5).

Matters of concern for students pertained to not having adequate study facilities and living space, not being exposed to supplementary learning opportunities such as additional lessons and peer tutoring, expectations as communicated with recruitment material differing from the real study environment, and having family responsibilities which serve as a demotivator for successful studying (section 5.4.4; section 6.4.4.1).

Poor class attendance by students as a result of poor quality teaching and a poor quality of learning materials and lecture handouts, lecturers coming late or leaving classes before the end of the teaching session and lecturer absenteeism were perceived as main reasons for students deciding to drop out (section 5.4.4; section 6.4.5). This was exacerbated by unsatisfactory learning experiences associated with wrong study choices or when the studied course was the student's second choice of course selection, and monotonous and boring teaching approaches by lecturers with their facilitation of learning content (section 5.4.4; section 6.4.5). In this regard inadequately qualified lecturers and a lack of lecturer ethics with lesson punctuality contributed to students becoming demotivated with their studies at TVET College institutions.

The main student support services aspects that continuously either motivate or inhibit student retention and success at the TVET College institutions related to the ecological systems theory of bronfenbrenner's microsystem level are factors such as individual students' learning experiences, adequately and relevantly qualified lecturers, social involvement motivating students to continue studying, and lecturer ethics with punctuality as they also influence student retention and success.

8.6.2 Implications of and recommendations arising from student support services aspects that continuously either motivate or hinder student retention and success at TVET College institutions.

TVET Colleges must invest in the development of their lecturer corps and in providing good quality learning support materials. Qualified lecturers and profound lecturer ethics regarding being prepared and punctual for all lessons must be fostered through professional development programmes. These programmes must be focussed on developing subject experts with a profound knowledge of the subject matter and how to facilitate this subject matter to students. For this reason, lecturers must

constantly attend refresher interventions that focus on the most recent teaching approaches to facilitate learning content based on the most recently developed technology.

The following aspects represent the main student support service factors that continuously motivate or hinder students to persevere with their studies at TVET College institutions.

- **Individual students' learning experiences**

Every student who enrolls at any post-school institution is a product of a unique set of life experiences and characteristics based on the environmental background which influenced that student's learning patterns and approaches to studying. The findings in this study emphasised that meaningful learning experiences are essential to their retention, demanding that institutions of higher learning create valuable and enriching learning experiences within their academic programmes (section 5.4.4). Students who are provided with limited chances to participate in meaningful learning experiences are denied the opportunity to integrate and apply knowledge which they could have obtained in their classes resulting in a mere waste of valuable time for everyone involved. Students' academic performance encourages them to study hard which relates to the fact that success breeds success.

It is therefore recommended that TVET College institutions focus on developing interventions that provide meaningful learning experiences as a joint effort from everyone involved in order to produce an economically independent and enlightened citizenry who possesses civic accountability. When meaningful learning experiences are not provided, students become disengaged and dissatisfied and drop out of their studies more easily. To counter such a situation, TVET Colleges must offer academic courses that are focussed on student experience that activate student-centred learning, integrating effective study skills and implementing continuous formative assessment as a strategy to confirm reached outcomes or to determine knowledge gaps which demand improved engagement.

- **Adequately and relevantly qualified lecturers**

The Department of Higher Education and Training acknowledged the dearth of suitably qualified lecturing personnel for TVET college tuition with these colleges dominated by ill-prepared lecturers, particularly those lecturers with limited capacity to incorporate theory and practice in their teaching endeavours (section 3.3.1.5). Students valued good quality teaching and learning that integrate theory

and practice and they complained about outdated teaching methodology, teaching and learning material of a poor quality, and lessons that are monotonous and boring (section 5.4.4; section 6.4.4.2).

In this regard, TVET College lecturers blame school teachers for students' ill-preparedness for college tuition, whereas other environments within the community attribute students' poor performance to inadequately qualified and insufficiently prepared lecturing staff (section 5.4.4; section 6.4.4.2). However, everything considered, both school teaching staff and college lecturing staff must be held responsible for the education and training of future citizens.

As the findings in this study support the results that the key characteristic of technical and vocational training approaches must be a focus on bridging the gap between theoretical knowledge and workplace skills, TVET Colleges must ensure that they address the shortcomings with regard to lecturers' limited theoretical and practical competencies (section 3.3.1.5). The dearth of relevantly and suitably skilled lecturers to facilitate theoretical and practical knowledge and skills competence demands the mobilising and channelling of resources in a constructive way. This implies that lecturing staff must have technical qualifications representative of pedagogical know-how combined with industry-related experience to provide quality teaching, thus ensuring successful learning that encourages perseverance and success. In order to achieve this pursuit, TVET Colleges must ensure strong links with businesses and industry to reflect the development of occupational identities through the socialization of the individual into the culture of a particular occupation. TVET Colleges must adhere to socio-economic needs by recruiting relevantly qualified lecturers with a right balance of practical experience from the industry and pedagogical skills obtained through professional education.

- **Social involvement motivating students to continue studying**

Student engagement and success with studies include two tenets, namely that student success is achieved when students increase their time and effort put into studies and other educational activities, and when learning institutions provide resources on organisational learning opportunities and services that encourage students to participate in and benefit from such activities (3.3.1.3). Findings from this study echoed similar results, namely that the degree of social involvement varies from student to student as students perceive social involvement as meaningful while studying to motivate them to continue with their studies (section 5.4.4). The implication is that students who are socially connected with fellow students and lecturers enjoy the opportunity to practice their social skills while obtaining

work-related knowledge and skills in order to become full-rounded responsible citizens. In this regard TVET College leadership must act as enablers allowing students the opportunity to engage in constructive social life while gaining work-related knowledge and skills.

- **Lecturer ethics with lesson punctuality**

Few absences from lessons from lecturers do not lead to poor performance by students, but excessive absenteeism by lecturers results in students not performing as they should have performed if lecturers were punctual and well-prepared for each lesson. This confirms that when students attend lectures this improves their academic performance and eventual success with studies (section 3.3.1.5). In this regard, the DHET has developed a Public Further Education and Training College Attendance and Punctuality Policy to enforce class attendance and punctuality with the aim of improving student retention and success. It was evident from this study that class attendance and punctuality by both lecturers and students contribute to student success with their studies (section 5.4.4; section 6.4.4.2). TVET Colleges must therefore focus on enforcing policies pertaining to lecturer punctuality and respond by ensuring constructive consequences for non-compliance with such policies. The focus must be on creating an awareness of work ethics to be applied consistently based on a zero tolerance approach within their institutions.

8.7 MAIN FINDINGS ON ASCERTAIN ANY OTHER ADDITIONAL ASPECTS THAT MAY CONTRIBUTE TOWARDS THE MANAGEMENT OF STUDENT RECRUITMENT, RETENTION AND SUCCESS AT TVET COLLEGE INSTITUTIONS.

Apart from the factors discussed that contribute to student retention and success at TVET Colleges, some additional factors remain that contribute to the improvement of student recruitment, retention and success.

8.7.1 Conclusions regarding other additional aspects that may contribute towards the management of student recruitment, retention and success at TVET College institutions.

Additional factors influencing the management of student recruitment, retention and success at TVET Colleges include the quality of preparedness of students coming from schools, the effectiveness of

student support services, and the relevancy of career guidance for learners from an early age at school already. Related to these factors is preparedness in terms of having a good foundation in mathematics and English, having mastered the language of teaching and learning sufficiently, and having TVET College enrolment as a second option when rejected by universities (section 5.4.4; section 6.4.5).

Additional aspects that may contribute towards the management of student recruitment, retention and success at TVET Colleges related to the ecological systems theory of Bronfenbrenner's macrosystem level include the quality of preparedness of students coming from schools, constructive student support activities, career guidance from an early age at school, profound foundation in Mathematics and English, the language of teaching and learning, and an option for students not meeting university requirements as they also impact on student retention and success.

8.7.2 Implications arising from other additional aspects that may contribute towards the management of student recruitment, retention and success at TVET College institutions.

In order to ensure positive retention and success rates for students, TVET Colleges must consider the different additional contributing factors identified as significant with this study. TVET College lecturers raised their concerns in respect of the quality of preparedness of students coming from schools, the lack of constructive student support activities provided to students, the lack of relevant career guidance offered at school from an early age, and students having a poor foundation in mathematics and English (section 5.4.4; section 6.4.5). These concerns result in prospective stakeholders and partners of TVET Colleges having a negative perception about TVET College functioning and the quality of training of TVET College students.

In order for TVET Colleges to deliver quality education that motivates prospective students to enrol at their institutions, these additional factors contributing to student recruitment, retention and success must be considered and accordingly responded to. In this regard, individual learning institutions must align these additional factors contributing to student recruitment, retention and success with their unique situation in terms of location, available resources and lecturing capacity.

8.7.3 Recommendations on other additional aspects that may contribute towards the management of student recruitment, retention and success at TVET College institutions.

The main additional factors contributing to student recruitment, retention and success at TVET College institutions are discussed next.

- **The quality of preparedness of students coming from school**

Many students entering post-school institutions are not prepared for the level of post-school reading and writing engagement with many students at post-school institutions who have completed their studies successfully having been enrolled in at least one remedial course in mathematics and in reading and writing during the period of enrolment at the post-school institution (section 2.6.1). TVET Colleges are mandated to provide industry-related qualifications to three groups of students, namely those who were not able to obtain their Grade 12 school qualification, those who completed their Grade 12 school qualification but without meeting university entrance requirements, and those employed already who aspire to upgrade their knowledge and skills in order to improve their qualifications.

The results of this study echo the views cited in section section 2.6.1 that students who enter TVET Colleges from school and who are not prepared for further study contributes to high levels of student dropout which influences the cost of training of the future labour force negatively (section 5.5.1.1.3; section 6.4.5). High failure rates are costly to all stakeholders while students from previously disadvantaged backgrounds are less successful with their studies due to many reasons, one of which is persistent negative provisioning at school (section 5.5.1.1.2; section 6.4.5).

However, the unpreparedness of students entering TVET Colleges is exacerbated by these learning institutions not being prepared for the demands of their diversified student populations. It would be easier to cope with this situation if school preparation was more in order because acceptable high school results and acceptable scores from selection tests are precursors for positive retention and success at post-school institutions (section 5.5.1.2.1; section 6.4.5). One way of enhancing student preparedness for TVET College tuition is to ensure that prospective students select suitable subject combinations relevant to technical and vocational training while still at school. In this regard, TVET College leadership must take the lead in promoting collaboration with primary and secondary school

education to ensure suitable subject selections occur at school in order to ensure prospective students for TVET College tuition are adequately prepared.

- **Constructive student support activities**

With reference to the importance of creating and continuously reviewing a culture of enhancing student persistence and success, findings from this study support that academic support services must be created by establishing a unit for this purpose that is focused on the following actions (section 3.4.7):

- collect and analyse data regarding the critical needs of individuals relating to how students learn, what their interests are, how they utilize available technological resources, and how they interact with curricular and co-curricular aspects of their studies.
- advocate continuously that departments ensure that tuition is related to the needs of students without lowering academic standards and by seeking inputs from students about new programme offerings.
- hold students accountable for their own learning and behaviour both in and out of the classrooms. Students must experience ample opportunities to determine what their abilities are and what they want to accomplish in their lives through classroom assignments and extracurricular activities.
- encourage institutions to create a culture based on student-centred approaches whereby all students are focused on persistence and success with their studies.
- build effective student support leadership by hiring competent staff and clearly communicate institutional expectations concerning employees' contributions to improving student recruitment, retention and success.
- ensure that institutional management have the fortitude to carry out student persistence plans based on having professionals assigned to student support services who are leaders of change and who are not afraid to challenge the status quo.

Depending on the real resources and capacity available, TVET Colleges must constantly determine and address factors that negatively influence student persistence and success.

- **Relevant career guidance from an early age at school**

Meaningful career guidance must be provided from an early age of school in order to ensure that college entrants are adequately prepared for their studies (section 5.5.1.2.2; section 6.4.4.1, section 6.4.5). Career guidance advisors are responsible for guiding students to navigate academic rules and regulations based on knowledge of the course requirements to assist students to select appropriate courses with related subjects in order to contribute to positive retention and success within the prescribed period of time for course completion. These consultations must be carried out with cognizance of students' abilities and capacity for new educational experiences within the specified framework for achievement (section 2.5.7). In this regard, TVET Colleges must jointly work with schools in assisting students to continuously evaluate teaching processes, select suitable subject combinations based on their career choices, and prepare themselves for the demands of these choices. Career guidance advisors must help learners who are still at primary school to identify their interests, talents and preferences in order to have the ability to connect their current studies with their future goals and careers when at a post-school learning institution (section 5.5.1.2.2; section 6.4.4.1; section 6.4.5).

To achieve this goal, TVET Colleges must sensitise their students to the academic pathways that direct them towards their career destinations. As some students enrol for courses with no pertinent career possibilities, career counsellors must, apart from being well versed with course requirements, schedules for studying, and policies determining graduation specifications, have a profound knowledge of what industry perceive as relevant knowledge and skills for employability. This pursuit is accomplished by employing qualified counsellors with extensive knowledge of labour market sentiments and with thorough knowledge of the abilities and interests of their individual students (section 5.5.1.2.2).

- **A profound foundation in mathematics and English**

TVET Colleges admit students who do not appropriately possess the basic entry requirements needed for technical and vocational studies which results in poor academic performance and low student retention and success rates (section 6.4.5). In order to improve student retention and success, TVET Colleges must ensure responsive student-centred support services, such as support services for peer tutoring in mathematics and language centres for developing reading and writing skills in English. Students must schedule appointments with employees of these support services to discuss challenges

and needs in anticipation of appropriately applicable assistance. Related to thorough knowledge of mathematics and English is the need for relevant advice to prospective students interested in technical and vocational studies in order for them to be placed in applicable courses that relate to school subject combinations (section 6.4.5). In this regard, TVET Colleges must have admission policies that are strictly adhered to in placing students appropriately in tailor-made course offerings in the various faculties.

- **The language of teaching and learning**

It is crucial to master the language of teaching and learning, namely English which, if not mastered, limits the active participation of disadvantaged students as they struggle to confidently express themselves in English as their second language (section 3.4.2). Language competency enables students to understand abstract concepts and increase students' confidence to participate in discussions on complex subject matter which serves as a pertinent factor contributing to student retention and success with TVET College teaching and learning (section 6.4.5). As the majority of TVET College students are from non-English speaking homes, English as the language of teaching and learning is a prominent factor disadvantaging studies with their studies, especially with regard to writing the examinations (section 6.4.5). TVET Colleges concerned about the level of English proficiency of their students that influence student retention and success negatively must align curricula and students' language needs with foundation language programmes that focus on empowering students in basic and improved language abilities.

- **An option for students not meeting university requirements**

Although TVET Colleges pursue to support DHET's intentions, namely strengthening and expanding the TVET College environment as institutions of choice for a large proportion of school leavers, students tend to first seek enrolment opportunities at universities before settling for TVET College training (section 5.5.1.2.1; section 6.4.5). Grade 12 learners who apply for post-school enrolments on the central application system and at NSFAS firstly aspire for university enrolment before sufficing with TVET College training (section 5.5.1.2.1; section 6.4.5). However, the perpetuated perception that TVET College students are those students who are not competent for university tuition is not correct and such a misleading perception must be addressed on a national level to counter the impediment it causes for proper and applicable training for many citizens. Because of this distorted perception, TVET Colleges are faced with many prospective students who are dropouts from school

with irrelevant subject combinations exacerbating student retention and success endeavours by TVET Colleges.

The unabated presence of silos with regard to school education serving as a feeder source for TVET Colleges or universities depending on learners' school performance contribute to a persistent gap between academic education, and technical and vocational education. The over emphasis on university training when only a limited number of work force members is accommodated in the labour market in applicable university-related employment, weakens the ability of TVET College training to contribute to the economic needs of the country.

The TVET College education is a system with other subsystems such as the Department of Higher Education and Training as the employer, TVET Colleges, campuses and different faculties. The successful management of the required resources for effective student retention and success at TVET Colleges can be effectively realized through the application of the principles of systems theory. This study on the management of student retention and success at TVET Colleges in Limpopo Province broadly relate to all the different layers outlined in Bronfenbrenner's ecological systems theory.

Throughout this study the student's ability and social involvement in these educational institutions are associated with historical events, parents' socio-economic status, institutional policy matters, and curriculum delivery which are potential predictors of student persistence or withdrawal. The findings in this study further support the integration theories' suggestion that the student's individual characteristics and a good match between the institutional environment and student commitment leads to successful student integration into the academic and social domains of college life.

8.8 LIMITATIONS OF THE STUDY

This research was conducted at only seven out of 24 TVET College campuses in Limpopo Province. The results of this study are therefore not generalizable to the broader TVET College population. Some would consider this a limitation. However, this study can be conducted at TVET Colleges in other countries using the same approach and methodologies since the management of student recruitment, retention and success is a campus-based phenomenon with different College campuses recruiting different cohorts of students.

This study contributes to the guidelines regarding the management of student retention and success at TVET Colleges in South Africa. Specific limitations pertaining to the literature study and empirical investigation are discussed next.

8.8.1 Literature study limitations

The objective of the literature study was to determine what is known about the management of student retention and success at the TVET College institutions. There is the possibility that important empirical studies on this topic may have been conducted but of which the information is not yet documented and therefore excluded from this study. It might also be that the researcher has overseen some literature which possibly limits the comprehensiveness of the literature study. There is a dearth of South African literature on the management of student retention and success in the TVET College environment which resulted in consulting sources focused on the international situation pertaining to student recruitment, retention and success in the TVET College education engagement.

8.8.2 Empirical study limitations

This study was limited to students and employees from only seven TVET Colleges in Limpopo Province, thereby excluding the other 43 TVET College institutions from the other provinces in the country. The sampled population for this study was predominantly full-time students with most of the part-time students excluded because the data was collected at a time when these students were not in attendance. However, due to the nature of sampling, the respondents and participants who participated in this study were representative of the broader TVET College student population in South Africa. It is suggested, though, that future research must involve a wider representation of the TVET College environment for the sake of a broader and more in-depth understanding of the management of student retention and success. Part of the limitations relating to the empirical investigation include institutional based constraints whereby TVET Colleges are held accountable for the management of student retention and success outcomes over which they have some influence but very little control. Because the management of student retention and success at TVET Colleges are fraught with complexities pertaining to capacity to collect and interpret data on the specific situation, policy makers and resource allocators rely on accountability measures from the DHET as the funder of TVET College environment functioning. Irrespective of these limitations, the research findings from this study provide guidelines to TVET Colleges on the management of student retention and success endeavours.

8.9 RECOMMENDATIONS FOR FUTURE RESEARCH

Based on the findings with this study, areas for future research are recommended next.

- For the purpose of improving accuracy, a similar study can be conducted with students and employees who were not involved in this study, but who are from the same TVET Colleges in Limpopo Province.
- With reference to the fact that each TVET College reflect a unique composition of strengths and weaknesses, similarities and differences between Business and Engineering Studies at the different TVET Colleges in the country can contribute to a better understanding of the nature of students from TVET Colleges' preparedness for labour market participation.
- In an endeavour to improve insight regarding factors influencing the management of student recruitment, retention and success at TVET Colleges, further research on each individual factor can be beneficial for countering or enhancing strategies.
- A study that compares TVET Colleges' management of student retention and success can result in constructive guidelines for each individual institution.

8.10 EVALUATION OF THE ALIGNMENT OF OBJECTIVES AND RESEARCH FINDINGS AS CONCLUDING REMARKS FOR THIS STUDY

The combined results of the literature study and empirical investigation presented in Chapter 7 enabled the researcher to evaluate the answering of the research questions as aligned to the research objectives. Each of the five research objectives (section 1.6; section 5.4) are now compared to the research findings of this study.

- **Research objective 1:** To investigate which institutional image and reputational aspects influence students to choose a specific TVET College institution.

Research findings revealed that the factors of safety and security at TVET Colleges, cleanliness of campuses, comfortable transport, facilities including workshop infrastructure, libraries, laboratories, and housing, visits to schools by the College for marketing purposes, and the geographical location of the institution influence student choices and retention at a specific TVET College. This objective has been satisfied.

- **Research objective 2:** To determine the main institutional communication sources used to attract prospective applicants when recruiting and selecting students to enrol at a specific TVET College institution.

Research findings revealed that in addition to safety and security, facilities, cleanliness, visits to Colleges and transport, factors such as access to the College's website, the status of the TVET College's publications, communication with the College, the College as sole provider of specific offerings, the TVET College's location where employment opportunities are accessible, and advertisement on radio, television, newspapers and magazines, served as factors influencing recruitment, retention and success. In addition, word of mouth also served as a factor influencing recruitment trends. This objective has been achieved.

- **Research objective 3:** To investigate the main aspects that are considered important in influencing student persistence and academic performance at a TVET College institution.

Research findings revealed that the main factors motivating student retention and success include course selection, financial assistance, employment possibilities with course completion, encouragement from family members and friends as alma-mater representatives, and a good match between course selection and student expectations. Additional factors influencing retention and success included government encouragement for enrolment in specific courses, a second option when university enrolment is denied, valuing technical and vocational education, and employer perception of TVET College education.

Approachable lecturing staff, alternative entry requirements, an affordable option and motivation from school teachers also influenced students' enrolment choices. Students were influenced as well by the prospects of a vibrant social life with associated extracurricular opportunities and the possibilities of pre-college and college entrance preparatory programmes to decide on specific TVET Colleges to further their studies. This objective has been met.

- **Research objective 4:** To investigate the main student support services aspects that initially motivate or hinder student retention and success at TVET College institutions.

Research findings revealed that the main factors initially influencing student retention and success with TVET College tuition include, apart from courses preparing students for employment opportunities and matching their expectations, the availability of induction and orientation

programmes that prepare students for the College environment, career guidance, subject matter knowledge, and a conducive campus climate for some diverse student corps. When potential employers address students at the campus, academic support activities are provided, and schools and TVET Colleges jointly prepare students for College tuition and this enhances student retention and success. A flexible mode of study, partnerships with industry to accommodate students for practical work, the provisioning of bridging programmes for applicants lacking minimum entry requirements and friendly administrative and academic staff enhance student well-being, engendering retention and success with studies. These results justify that this objective has been reached.

- **Research objective 5:** To investigate the main student support services aspects that continuously motivate or hinder student retention and success at TVET College institutions.

Research findings revealed that the main factors continuously influencing student retention and success include students' academic performance encouraging them to remain focused on their studies, the quality of teaching and learning that integrate theory and practice, constructive feedback on students' academic progress, effective career guidance, academic support and advice services, and social involvement in College life activities. Prompt feedback on assessments, adequate student support facilities, and assistance with the mastering of the language of teaching and learning enhanced student retention.

Research findings revealed that factors that hinder student retention and success pertained to using outdated teaching methodology in lessons, insufficient orientation and induction for novice students, inadequacies regarding study facilities and housing arrangements, the lack of supplementary learning activities, and when students' expectations were not aligned with recruitment materials. When students had additional family responsibilities, when lecturers were not punctual and prepared for every lesson, and when teaching and learning materials and lecture handouts were of a poor quality and lessons monotonous and boring, students were prone to dropping out of TVET College tuition. These results justify that this objective has been reached.

- **Research objective 6:** To ascertain any additional aspects that may contribute towards the effective management of student recruitment, retention and success at TVET College institutions.

Research findings revealed that the degree of preparedness for College tuition of students coming from school, meaningful student support activities, relevant career guidance from the early years of

school education, and a solid foundation in mathematics and in English as the language of teaching and learning served as contributing factors for positive retention and success with TVET College training. The second option for students whose applications are rejected for possible university registration also served as a motivation factor to remain focussed on their studies at the TVET College institutions. This objective has been addressed.

REFERENCES

- Aaker, D.A., Kumar, V., & Day, G.S. 2000. *Marketing research*. (7thEd.). New York: Wiley.
- Abdulla, D. 2014. Does pre-admissions testing play a role in Math performance among students enrolled in a 2-year practical nursing Diploma Program? *Journal of Education and Training*, 1(2):143-155.
- Achieve, Inc. 2005. *Rising to the challenge: Are high school graduates prepared for College and work?* Retrieved from <http://www.achieve.org/publications>.
- Achieve, Inc. 2006. *Closing the expectations gap 2006: An annual 50-state progress report on the alignment of high school policies with the demands of College and work*. Washington, DC:
- Achieve, Inc. 2012. *Closing the expectation gap*. Retrieved from <http://www.achieve.org/publications>
- Adamson, G. & McAleavy G. 2000. Withdrawal from vocational courses in colleges of further and higher education in Northern Ireland. *Journal of Vocational Education and Training*, 52(3):2000.
- Adebayo, B. 2008. Cognitive and non-cognitive factors affecting the academic performance and retention of conditionally admitted freshmen. *Journal of College Admission*, (200):15-21.
- Adelman, C. 2005. *Moving into town-and moving on: The community college in the lives of traditional-age students*. Washington, D.C.: U.S. Department of Education.
- Adelman, C. 2006. *The toolbox revisited: Paths to degree completion from high school through College*. Washington, DC: U.S. Department of Education.
- African National Congress. 1994. *Reconstruction and Development Programme (RDP)*. A policy framework. Retrieved in July 2014, from <http://www.anc.org.za/rdp/index.html>.
- Alberts, C., Mbalo, N.L. & Ackermann, C.J. 2003. Adolescents' perceptions of the relevance of domains of identity formation: A South African cross-cultural study. *Journal of Youth and Adolescence*, 32(3):169-184.
- Ali, N., Jusof, K., Mokhtar, N. & Salamat, A.S.A. 2009. The factors influencing students' performance at universities. Mara Keda, Malasia. *Management Science and Engineering*, 3(4):81-90.
- Allais, S., & Shalem, Y. 2018. *Knowledge, Curriculum, and Preparation for Work*. Leiden and Boston: Brill Sense
- Allen, C., Brower, A. & Golde, C. 1999. Wiser women: Fostering undergraduate success in science and engineering with a residential academic program. *Journal of Women and Minorities in Science and Engineering*, (5):265-277.
- Allen, J., Robbins, S.B., Casillas, A., & Oh, I. 2006. Third-year college retention and transfer: Effects of academic performance, motivation, and social connectedness. *Review of Higher Education*, (49):647-664.

Allen, J., Robbins, S. B., Casillas, A., & Oh, I. 2008. Third-year college retention and transfer: Effects of academic performance, motivation, and social connectedness. *Research in Higher Education*, 49(7):647-664.

Altbach, P.G., Reisberg, L., & Rumbley, L.E. 2009. Trends in global Higher Education: Tracking an academic revolution. A report prepared for the UNESCO World Conference on Higher Education.

Amagir A., Wilschut A., & Groot, W. 2018. The relationship between financial knowledge, attitudes towards money, financial self-efficacy, and financial behaviour among high school students in the Netherlands. *Empirische Pädagogik* 32(3):387-400

Amelink, C.T. 2005. *Predicting academic success among first-year, first generation students*. PhD dissertation, unpublished. USA: Virginia Polytechnic Institute and State University.

American Association of State Colleges and Universities (AASCU). 2005. *Student success in state colleges and universities: A matter of culture and leadership*. New York: Author. Retrieved January 2014, from <http://www.calpoly.edu/~acadsen/documents/AASCU-GRO> .

American College Testing Program (ACT). 2005. *Crisis at the core: Preparing all students for College and work*. Iowa City, IA.

American College Testing Program (ACT). 2006a. *Reading between the lines: What the ACT reading test reveals about college readiness*. Iowa City, IA.

American College Testing Program (ACT). 2006b. *Ready for college ready for work: Same or different?* Iowa City, IA: Author. Retrieved from <http://www.act.org/research/policymakers/reports/workready.html>.

American College Testing Program (ACT). 2007a. *Rigor at risk: Reaffirming quality in high school core curriculum*. Iowa City, IA: Author. Retrieved from <http://www.act.org/research/policymakers/reports/rigor.html>.

American College Testing Program (ACT). 2007b. *The ACT technical manual*. Iowa City, IA: Author. Retrieved from <http://www.act.org/qualitycore/pdf/TechnicalManual.pdf>.

American College Testing Program (ACT). 2008a. Institutional Data File. *National collegiate retention and persistence to degree rates, 2008*. Retrieved from http://www.act.org/research/policymakers/pdf/retain_2008.pdf.

American College Testing Program (ACT). 2008b. *ACT's college readiness system: Meeting the challenges of a changing world*. Iowa City, IA: Author. Retrieved from <http://www.act.org/research/policymakers/pdf/crs.pdf>.

American College Testing Program (ACT). 2009. *Measuring college and career readiness: The class of 2009*. Iowa City, IA: Author. Retrieved from [http://www.act.org/newsroom/data/2009/pdf/output/ACT_WashingtonDC_Output .pdf](http://www.act.org/newsroom/data/2009/pdf/output/ACT_WashingtonDC_Output.pdf).

American College Testing Program (ACT). 2012a. *ACT profile report – state: Graduating class 2012 Texas*. Retrieved from <http://www.act.org/newsroom/data/2012/pdf/profile/Texas.pdf>.

American College Testing Program (ACT). 2012b. *The condition of college & career readiness 2012 – National*. Retrieved from <http://www.act.org/research-policy/college-career-readiness-report-2012/>.

American institutes for research. 2010. Finishing the first lap: the cost of first year student attrition in America's four year Colleges and Universities. Retrieved February 2013 from http://www.airorg/files/AIR_Schneider_finishing_the_first_Lap_OctIOI.pdf.

Anderson, K.G., Case, A., & Lam, D. 2001. Causes and consequences of schooling outcomes in South Africa: Evidence from survey data. *Social Dynamics: A Journal of African Studies*, 27(1):37-59.

Arcidiacono, P. 2004. Ability sorting and the returns to College major. *Journal of Econometrics*, 121(1-2): 343-375.

Argamal, B.L. 2013. *Basic statistics*. London: New Age International.

Argyrous, G. 2011. *Statistics for Research with a Guide to SPSS*. (3rdEd.). London: Sage.

Arnould, E., Price, L. & Zinkhan, G. 2004. *Consumers*. (2nd Ed). McGraw-Hill: New York.

Ary, D., Jacobs L.C., & Razavieh, A. 2002. *Introduction to research in education*. (6thEd.). Belmont: Wadsworth.

Ascend Learning, LLC. 2012. Student attrition: Consequences, contributing factors, and remedies. McGraw-Hill: New York.

Askham Bryan College. 2000. Raising quality and achievement development project case study, retrieved from www.rqa.org.uk.

Askham, P. 2004. *The feeling's mutual: Excitement, dread and trust in adult learning and teaching*. Education. Sheffield, Sheffield Hallam University.

Astin, A.W. 1971. Predicting academic performance in College. New York: The Free Press.

Astin, A.W. 1975. Preventing students from dropping out. San Francisco: Jossey-Bass.

Astin, A.W. 1993. What matters in college: Four critical years revised. San Francisco: Jossey-Bass.

Astin, A. & Oseguera, L. 2005. *Degree Attainment Rates at American Colleges and Universities (Revised Edition)*, Higher Education Research Institution. Los Angeles: University of California.

Astin, A.W., Tsui, L. & Avalos, J. 1996. Degree attainment rates at American Colleges and Universities: Effects of race, gender and institutional type. Los Angeles Higher Education Research Institute, UCLA.

Athanassopoulos, A.A., Gunaris, S. & Stathkapoulus, V. 2001. Behavioural response to customer satisfaction. *European Journal of marketing*, 35(6):687-707.

Atkinson, R., & Geiser, S. 2012. Reflections on a century of College admissions tests. In Soares, J.A. (Ed.). *SAT Wars: The case for test-optional College admissions*. 23-49. New York: Teachers College Press, Columbia University.

- Attewell, P., Heil, S. & Reisel, S. 2011. Competing explanations of undergraduate non-completion. *American Educational Research Journal*, 48(3):536-559.
- Attewell, P., Lavin, D., Domina, T., & Levey, T. 2006. New evidence on college remediation. *Journal of Higher Education*, 77(5):101-127. New York: Russell Sage Foundation.
- Attewell, P., Lavin, D., Domina, T., & Levey, T. 2007. *Passing the torch: Does higher education for the disadvantaged pay off across the generations?* New York: Russell Sage Foundation, American Sociological Association Rose Monographs Series.
- Aud, S., Hussar, W., Kena, G., Bianco, K., Fröhlich, L., Kemp, J., & Tahan, K. 2011. *The condition of education*. U.S. Department of Education, National Center for Education Statistics. Washington D.C: U.S. Government Printing Office.
- Ayentimi, D., Burgess, J., & Dayaram, K. 2018. Skilled Labour Shortage. *Human Resource Development International* 21 (5): 406–424. doi:10.1080/13678868.2018.1447881.
- Babbie, E.R. 2007. *The basics of social research*. Belmont: Thomson Wadsworth.
- Babbie, E. & Benaquisto, L.2010. *Fundamentals of social research*. (2ndEd.). Canada: Nelson Education.
- Babbie, E. & Mouton, J. 2004. *The practice of social research*. Oxford: Oxford University Press.
- Bacolod, M. & Tobias, J.L. 2005. School Quality and Achievement Growth: Evidence from Philippines. Retrieved August 2015 from <http://www.socsci.uci.edu/~mbacolod/cedu>.
- Bailey, T. 2009. Challenge and opportunity: Rethinking the role and function of developmental education in community college. *New Directions for Community Colleges*, (145):11-31.
- Bailey-Beckett, S. & Turner, G. 2001. *Triangulation: How and why triangulated research can help grow market share and profitability*. Beckett Advisors. Inc.
- Bailey, T.R. & Alfonso, M. 2005. Paths to persistence: An analysis of research on program effectiveness at community colleges. *Lumina Foundation for Education New Agenda Series*, 6(1):11-31.
- Baker, S.R. 2003. A prospective longitudinal investigation of social problem-solving appraisals on adjustment to university, stress, health, and academic motivation and performance. *Personal and Individual Differences*, 35(3):569-591.
- Baker, V., & Griffin, K. 2010. Beyond mentoring and advising: Toward understanding the role of faculty “developers” in student success. *About Campus*, 14(6):2-8.
- Baldwin, C., & Rosier, J. 2017. Growing future planners: A framework for integrating experiential learning into tertiary planning programs. *Journal for Planning Education and Research*, 37(1), 43-55. doi: 10.1177/0739456X16634864
- Baloyi, M.L. 2004. Improving achievement in Further Education and Training institutions in Limpopo Province. MTEch in Education, Tshwane University of Technology.

- Bamber, J. & Tett, L. 1999. Opening the doors of higher education to working class adults: A case study. *International Journal of Lifelong Education*, 18(6):465-475.
- Bamber, J. & Tett, L. 2001. Ensuring integrative learning experiences for nontraditional students in higher education. *Journal of Widening Participation and Lifelong Learning*, 3(1):8-18.
- Bandura, A. 2001. Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, (52):1-26.
- Bangser, M. 2008. At a glance: Preparing high school students for successful transitions to postsecondary education and employment. National Higher School Center. U.S. Department of Education.
- Bankston, C.L. & Caldas, S.J. 1998. Family structure, schoolmates, and racial inequalities in school achievement. *Journal of Marriage & the Family*, (60):715-724.
- Barnes, W.B., & Slate, J.R. 2010. College-readiness: The current state of affairs. *Academic Leadership: The online Journal*, 8(4). Retrieved from <http://www.academicleadership.org/article/college-readiness-the-current-state-ofaffairs>.
- Barnes, W.B., & Slate, J.R. 2011. College-readiness rates in Texas: A statewide, multiyear study of ethnic differences. *Education and Urban Society*. 9(1): 1-25
- Barnes, W.B., & Slate, J.R. 2013. College-readiness is not one-size-fits-all. *Current Issues in Education*, 16(1):1-11. Retrieved from <http://cie.asu.edu/ojs/index.php/cieatasu/article/view/1070>.
- Barnes, W.B., Slate, J.R., & Rojas-LeBouef, A. 2010. College-readiness and academic preparedness: The same concepts? *Current Issues in Education*, 13(4). Retrieved from <http://cie.asu.edu/>.
- Barnett, E.A. 2006. *Validation experiences and persistence among urban community College students*. University of Illinois at Urbana-Champaign Ph.D.). Retrieved on September 2015 from <http://ezproxy.libraries.claremont.edu>.
- Barnett, E.A. 2010. Validation experiences and persistence among community college students. *The Review of Higher Education*, 34(2):193-230.
- Baronov, D. 2012. *Conceptual foundations of social research methods*. (2ndEd.). London: Paradigm Publishers.
- Barrie, S. 2005. *Starting the journey towards generic graduate attributes for a super-complex world*. Paper presented to the European Association for Research on Learning and Instruction 11th Biennial Conference, University of Cyprus, Nicosia, Cyprus.
- Barry, T. 2006. *The effect of socio-economic status on academic achievement*. PhD thesis. Wichita: Wichita State University.
- Bazely, P. 2003. Teaching mixed methods. *Qualitative Research Journal*, (3):117-126. www.latrobe.edu.au/aqr.

- Beal, S.J. & Crockett, L.J. 2010. Adolescents' occupational and educational aspirations and expectations: Links to high school activities and adult educational attainment. *Developmental Psychology*, (46):258-265.
- Bean, J.P. 2005. Nine themes of college student retention. In Seidman, A. (Ed.). *College student retention*. Westport: Praeger Publishers. (1):220-227
- Bean, J. P., & Eaton, S. B. 2000. A psychological model of college student retention. In J. M. Braxton (1stEd.). *Reworking the student departure puzzle*. Nashville, TN: Vanderbilt University Press.
- Bean, J.P. & Eaton, S.B. 2001. A psychological model of college student retention, 48-74. In Braxton, J.M. (2ndEd.). *Reworking the student departure puzzle: New theory and research on college student retention*. Nashville, TN: Vanderbilt University Press.
- Bean, J.P. & Eaton, J. 2001. The psychology underlying successful retention practices. *Journal of College Student Retention: Research, Theory and Practice*, 3(1):73-89.
- Bell, J. 2005. *Doing your research project: A guide for first time researchers in education, health and social science*. (4thEd.). New York: Open University Press.
- Bell, J., & McKay, T.M. 2011. The rise of 'class apartheid' in accessing secondary schools in Sandton, Gauteng. *Southern African Review of Education*, (17):27-48.
- Bengson, J. & Moffett, M.A. (Eds.). 2011. *Knowing how: Essays on knowledge, mind, and action*. Oxford: Oxford University Press.
- Bensimon, E.M. 2006. *Presidential address: The underestimated significance of practitioner knowledge in the scholarship on student success*. Paper presented at the Association for the study of Higher Education, Anaheim, CA.
- Bensimon, E.M. 2007. The underestimated significance of practitioner knowledge in the scholarship on student success. *The Review of Higher Education*, 30(4):441-469.
- Berenson, M.L, Levine, D.M., & Krenhbiel, T.C. 2012. *Basic business statistics. Concepts and applications*. (12thEd.). Edinburgh: Pearson Education Limited.
- Berg, B.L. 2007. *Qualitative research methods for the social sciences*. (6thEd.). Boston, MA: Pearson Education, Inc.
- Berger, J.B., Ramirez, G.B. & Lyon, S. 2012. Past to present: A historical look at retention. In Seidman, A. (Ed.). *College student retention: Formula for student success*. (2ndEd.). Lanham, MD: RowMan & Littlefield.
- Berkner, L., He, S. & Cataldi, E.F. 2002. *Descriptive Summary of 1995-96 Beginning Postsecondary Students. Six Years Later*. U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Berman, B. & Evans, J.R. 2001. *Retail management: A strategic approach*. (8thEd.). New Jersey: Prentice Hall.

- Bernard, H.R. 2006. *Research methods in anthropology: Qualitative and quantitative approaches*. (4thEd.). London: Rowman and Littlefield Publishers.
- Bernard, H.R. 2013. *Research methods in anthropology: Qualitative and quantitative approaches*. (3rdEd.). Walnut Creek, CA: Alta Mira Press.
- Bers, T.H. & Galowich, P.M. 2002. Using survey and focus group research to learn about parents' role in the community College-choice process. *Community College Review*, 29(4):68-82.
- Biblarz, T.J. & Gottainer, G. 2000. Family structure and children's success: A comparison of widowed and divorced single-mother families. *Journal of Marriage and the Family*, (62):533-548.
- Björklund, C. 2001. *Work motivation: Studies of its determinants and outcomes*. Dissertation, Stockholm School of Economics: The Economic Research Institution.
- Blackwell, A., Bowes, L., Harvey, L., Hesketh, A.J. & Knight, P.T. 2001. Transforming work experience in higher education. *British Educational Research Journal*, 27(3):269-285.
- Blaikie, N. 2010. *Designing social research*. (2nd Ed.). Cambridge: Polity Press.
- Blaire, T. & Woolhouse, M. 2000. Learning styles and retention and achievement on a two year a level programme in a Further Education College. Paper presented at the annual Further Education Research Network Conference, December.
- Blaney, C., & Mulkeen, S. 2008. *Student retention in a modular world – A study of student retention UCD Entrants 1999-2007*. Dublin: University College Dublin.
- Bless, C. & Achola, P. 1988. *Fundamentals of social research methods: An African perspective*. Lusaka: Government Printer.
- Bless, C. & Higson-Smith, C. 2000. (3rdEd.). *Fundamentals of social research methods. An African perspective*. Cape Town: Juta.
- Blom, R. 2016. *Towards a vocational pedagogy for South African TVET Educators*. Pretoria: Education Policy Consortium.
- Bogdan, R. & Biklen, S.K. 2007. *Qualitative research for education: An introduction to theory and methods*. (5thEd.). Needham Heights: Allyn and Bacon.
- Bogdan, R.C. & Knopp-Biklen, S. 2006. *Qualitative research for education: An introduction to theories and methods*. (5thEd.). Boston: Pearson.
- Boinamo, G. 2007. Back slapping while children of democracy are failed by the school system. *Cape Times*, 16 January.
- Bollen, K.A. & Hoyle, R.H. 1990. Perceived cohesion: A conceptual and empirical examination. *Social Forces*, (69):479-504.
- Bonnema, J. & Van Der Walddt, D. 2008. Information preferences of a student market in HE. *International Journal of Education Management*, 22(4):314-27.

- Boote, D.N. & Beile, P. 2005. Scholars before researchers. On the centrality of the dissertation literature review in research preparation. *Educational Research*, 34(6):3-15.
- Borchert, M. 2002. Career choice factors of high school students. Accessed in June 2014. [Online] Available: <http://www2.uwstout.edu/content/lib/thesis/2002/2002borchertm.pdf>.
- Bosch, W.C., Hester, J.L., MacEntee, V.M., MacKenzie, J.A., Morey, T.M. & Nichols, J.T. 2008. Beyond lip service: An operational definition of “learning-centered college.” *Innovative Higher Education*, 33(2):83-98.
- Boslaugh, S. 2013. *Statistics in a nutshell. A desktop quick reference. (2ndEd.)*. New York: O’Reilly.
- Bouma, G.D., Ling, R. & Wilkinson, L. 2009. Ethics in human research. In *The Research Process, Canadian Edition*. Don Mills, ON: Oxford.
- Bound, J., Lovenheim, M.J. & Turner, S. 2010. Why have College completion rates declined? An analysis of changing student preparation and collegiate resources. *American Economic Journal: Applied Economics*, 2(3):129-157.
- Bourn, J. 2002. Improving student achievement in English Higher Education. Report by the Comptroller and Auditor General, National Audit Office (NAO). London: The Stationary Office.
- Bowen, W. G., Chingos, M.M. & McPherson, M.S. 2009. *Crossing the finish line: Completing College at America’s public universities*. Princeton, N.J.: Princeton University Press.
- Bowes, L., Thomas, L., Peck, L. & Nathwani, T. 2011. International research on the effectiveness of widening participation. Report to HEFCE and OFFA. Edge Hill University: CFE Research.
- Bowes, L., Thomas, L., Peck, L., & Nathwani, T. 2013. International research on the effectiveness of widening participation. Report to HEFCE and OFFA. Edge Hill University: CFE Research
- Bowl, M. 2012. *The contribution of Further Education and sixth-form colleges to widening participation. A literature synthesis of the widening access, student retention and success national programmes archive*. School of Education: University of Birmingham.
- Boylan, H.R. 2008. How research contributes to access and opportunity around the world. *Journal of Developmental Education*, 32(1):2-3.
- Boylan, H.R. 2009. Targeted intervention for developmental education students (T.I.D.E.S.). *Journal of Developmental Education*, 23(3):1-23.
- Braun, V. & Clarke, V. 2013. *Successful qualitative research: A practical guide for beginners*. London: Sage.
- Braxton, J.M. & Lien, L.A. 2000. The viability of academic integration as a central construct in Tinto’s interactionist theory of College student departure. In Braxton, J.M. (Ed.). *Reworking the student departure puzzle*. Nashville, TN: Vanderbilt University Press.

- Braxton, J.M., & Hirschy, A.S. 2005. Theoretical developments in the study of college student departure. In Seidman, A. (Ed.). *College student retention: Formula for student success*. Westport, CT: Praeger.
- Braxton, J.M., McKinney, J., & Reynolds, P. 2006. Cataloging institutional efforts to understand and reduce college student departure. In St. John, E.P. & Wilkerson, M. (Eds.). *Reframing persistence research to improve academic success*, 25-32. New directions for institutional research, No 130. San Francisco: Jossey-Bass.
- Braxton, J. M., & McClendon, S. A. 2001. The fostering of social integration through institutional practice. *Journal of College Student Retention*, 3(1), 57-71.
- Bray, R., Gooskens, I., Kahn, L., Moses, S. & Seekings, H. 2010. Growing up in the new South Africa: Childhood and adolescence in post-apartheid Cape Town. Cape Town: HSRC Press.
- Bridglall, B.L., & Gordon, E.W. 2002. The idea of supplementary education. *Pedagogical Inquiry and Praxis*, (3):21-38.
- Bronfenbrenner, U. 1979. *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Bronfenbrenner, U. 1986. Recent advances in research on human development. In Silbereisen, R. K., Eyferth, K. & Rudinger, G. (Eds.). *Development as action in context: Problem behavior and normal youth development*, 287-309. New York: Springer.
- Bronfenbrenner, U. 1989. Ecological systems theory. *Annals of Child Development*, (6):187-249. Greenwich, CT: JAI Press.
- Bronfenbrenner, U. 1995. The ecology of cognitive development: Research models and fugitive findings. In Wozniak, R.H. & Fischer, K.W. (Eds.). *Development in context*. Hillsdale, NJ: Erlbaum.
- Bronfenbrenner, U. 1995. Developmental ecology through space and time: A future perspective. In Moen, P. & Elder, G.H. Jr. (Eds.). *Examining lives in context: Perspectives on the ecology of human Development*, 619-647. Washington, DC: American Psychological Association.
- Bronfenbrenner, U. 2005. *Making human beings human: Bioecological perspectives on human development*. Thousand Oaks, CA: Sage.
- Brown, J.K. 2010. An examination of undergraduate student recruitment procedures and activities at a Midwestern state university. *Enrollment Management Journal*, 4(3):89-116.
- Brown, R.B & Saunders, M. 2008. *Dealing with statistics. What you need is what you know*. London: Open University Press.
- Brüssow, S. 2007. A learning facilitation framework to enhance academic skills development among underprepared learners in South African higher education. Centre for Higher Education studies and development faculty of the Humanities University of the Free State, Bloemfontein, South Africa.

- Bryson, C. 2004. What about the workers? The expansion of higher education and the transformation of academic work. *Industrial Relations Journal*, 35(1):38-57.
- Bryson, C. & Hand, L. 2007. The role of engagement in inspiring teaching and learning. *Innovations in Education and Teaching International*, 44(4):349-363.
- Bundy, C. 2006. Global patterns, local options? Changes in Higher Education internationally and some implications for South Africa. *Kagisano*, (4):1-20.
- Burke, P.J. 2012. *The right to higher education: Beyond widening participation*. New York: Routledge.
- Burrus, J., Jackson, T., Holtzman, S., Roberts, R.D., & Mandigo, T. 2013. *Examining the efficacy of a time management intervention for high school students*. ETS Research Report No. ETS RR-13-25. Princeton, NJ: Educational testing service.
- Bush, E.C. & Bush, L.V. 2010. Calling out the elephant: An examination of African American male achievement in community colleges. *Riverside City College California State University, Los Angeles*. Retrieved February/March 2015 from *Journal of African American Males in Education*, 1(1):42.
- Buthelezi, Z. 2018. Lecturer experiences of TVET College challenges in the post-apartheid era: a case of unintended consequences of educational reform in South Africa, *Journal of Vocational Education & Training*, DOI: 10.1080/13636820.2018.1437062
- Cadet, D.L. 2008. *Leaving college early or persisting to graduation: A study of African-American men*. Doctoral dissertation, Virginia Commonwealth University.
- Cabrera, A.F. & La Nasa, S.M. 2000. *Understanding the College choice of disadvantage students. New directions for institutional research*. San Francisco: Jossey-Bass.
- Camara, W. & Echternacht, G. 2000. *The SAT I and High School Grades: Utility in Predicting Success in College*. College Board Report No10. New York: College Entrance Examination Board.
- Campbell, C.M. & Mislavy, J. 2009. *Students' perceptions matter: Early signs of undergraduate student retention/attrition*. Paper presented at the meeting of the Northeast Association of Institutional Research.
- Cannon, H.M. 2004. *Redesigning the Principal-ship in Catholic Schools*. Unpublished doctoral thesis, Australia Catholic University.
- Caperton, G. 2007. *Getting ready, getting in, and getting through College: Expanding options for Low-Income Students: An Open Letter to the leaders of American Education College Board. Advanced Placement Program, AP*. Washington DC: College Scholarship Service.
- Carey, K. 2005a. *One step from the finish line: Higher college graduation rates are within our reach*. New York: The Education Trust.
- Carey, K. 2005b. *Choosing to improve: Voices from colleges and universities with better graduation rates*. New York: The Education Trust.

- Carey, K. 2006. *College rankings reformed: The case for a new order in Higher Education*. New York: Education Trust.
- Carey, N., Cahalan, M.W., Cunningham, K. & Agufa, J. 2004. *A profile of the Student Support Services Program: 1997-1998 with select data from 1999-2000*. Washington, DC: US Department of Education.
- Carneiro, P., Meghir, C., & Parey, M. 2013. Maternal education, home environments, and the development of children and adolescents. *Journal of the European Economic Association*, 11(1): 123-160.
- Carnevale, A.P., Smith, N., & Strohl, J. 2010. Help wanted: Projections of jobs and education requirements through 2018. Georgetown University Center on Education and the Workforce.
- Caumont, A. 2014. *6 key findings about going to college*. Pew Research Center. Retrieved from <http://www.pewresearch.org/fact-tank/2014/02/11/6-key-findingsabout-going-to-college/>
- Cejda, B.D. & Hoover, R.E. 2010. Strategies for faculty-student engagement: How community college faculty engage Latino students. *Journal of College Student Retention: Research, Theory and Practice*, 12(2):135-153.
- Ceja, M. 2006. Understanding the role of parents and siblings as information sources in the college choice process of Chicana students. *Journal of College Student Development*, 47(1):87-104.
- Center on Education Policy. 2012. The George Washington University Graduate School of Education and Human Development. Washington, DC: US Department of Education.
- Chandler, J.R., Slate, J.R. Moore, G.W., & Barnes, W. 2014. College readiness for students with special learning needs: A critical analysis of the literature. Sam Houston State University. *Journal of Ethical Educational Leadership*, (3):1-26.
- Chaney, B.W. & Office of Planning. 2010. *National Evaluation of Student Support Services: Examination of Student Outcomes after Six Years. Final Report*. Office of Planning, Evaluation and Policy Development, US Department of Education.
- Chang, H. 2008. *Autoethnography as method*. Walnut Creek, CA: Left Coast.
- Chang, M.J. 2002. The impact of an undergraduate diversity course requirement on students' level of racial prejudice, *Journal of General Education*, 51(1):21-42.
- Charles, C.Z., Roscigno, V.J., & Torres, K.C. 2007. Racial inequality and college attendance: The mediating role of parental investments. *Social Science Research*, 36(1):329-352.
- Charmaz, K. 2006. *Constructing grounded theory. A practical guide through qualitative analysis*. Los Angeles: Sage.
- Chen, R. & DesJardins, S.L. 2008. Exploring the effects of financial aid on the gap in student dropout risks by income level. *Research in Higher Education*, (49):1-18.
- Chen, J. & Lin, T.F. 2008. Class attendance and exam performance: A randomized experiment. *Journal of Economic Education*, 39(3):213-227.

- Chen, H., Lattica, L., & Hamilton, L. 2008. Conceptualizing engagement: Contributions of faculty to student engagement in Engineering. *Journal of Engineering Education*, 97(3):339-352.
- Chen, X., Wu, J., & Tasoff, S. 2010. *Academic preparation for College in the high school senior class of 2003-04*. Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Choy, S.P. 2001. *Students Whose Parents did not go to College: Postsecondary Access, Persistence, and Attainment*. (NCES 2001-126). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Choy, S. 2001. *The condition of education*. Washington, DC: National Center for Education Statistics. Available online at www.nces.ed.gov.
- Christmann, E.P. 2012. *Beyond the numbers. Making sense of statistics*. Virginia: NSTA Press.
- Churchill, G.A. & Peter, J.P. 1998. *Marketing: Creating value for customers*. Boston: Irwin/McGraw-Hill.
- Cirone, J.D. 2003. The service profit chain viewed in an educational domain: Is there a correlation between faculty commitment and student satisfaction? Doctoral dissertation. Indiana University.
- Clarence, J. 2010. Academic development and the 'language problem'. In Hutchins, C. & Garraway, J. (Eds.). *Beyond the University Gate: Provision of Extended Curriculum Programmes in South Africa*. Proceedings of the January 2009 Rhodes University Foundation Seminar, Grahamstown.
- Clarence-Fincham, J. 2009. Developing an extended curriculum for humanities at the University of KwaZulu-Natal: Conceptual shifts, challenges and constraints.
- Clarkson, L.M.C. 2008. Demographic data and immigrant student achievement. *Theory into Practice*, 47:20-26.
- Cline, Z., Bissell, J., Hafner, A., & Katz, M. 2007. Closing the College readiness gap. *Leadership*, 37(2):30-33.
- Clough, P. & Nutbrown, C. 2002. *A student's guide to methodology: Justifying enquiry*. London: Sage.
- Coates, H. 2007. A model of online and general campus-based student engagement. *Assessment and Evaluation in Higher Education*, 32(2):121-141.
- Cohen, L. & Manion, L. 1995. *Research methods in education*. (4th Ed.). London: Routledge Publishers.
- Cohen, L., Manion, L., & Morrison, K. 2000. *Research methods in education*. (5th Ed.). London: Routledge Falmer Publishers.
- Cohen, L., Manion, L., & Morrison, K. 2007. *Research methods in education*. (7th Ed.). London: Routledge Falmer Publishers.

- Colalillo, G. 2007. Mentoring as a retention strategy in a diverse, multicultural, urban associate degree nursing program. *Teaching and Learning in Nursing*, (1):28-33.
- College Board. 2009. How Colleges organize themselves to increase student persistence: Four-year institutions. *College Board Study on Student Retention*. From Indiana University's Project on Academic Success.
- College Board. 2005a. Trends in College pricing. Washington, DC: The College Board.
- College Board. 2005b. *Trends in student aid*. Washington, DC: The College Board.
- College Board. 2005c. *Recruitment and Admission: ASQ and ASQ PLUS*. [Online]. Available at: <http://www.collegeboard.com/highered/ra/asq.htmlp> (Accessed May 2014).
- College Board. 2005d. *Recruitment and Admission: ASQ and ASQ PLUS*. 2005. [Online]. Available from: <http://www.collegeboard.com/highered/ra/asq.htmlp>.
- College Board, 2006. College costs: Keeping rising prices in perspective. Retrieved on March 30, 2014 from <http://www.collegeboard.com/student/pay/add-it-up/4494.html>.
- College Board, 2007. The College keys compact: Getting ready, getting in, and getting through. College: *Expanding options for low-income students*. New York: Board of Trustees. Retrieved August 8, 2014 from <http://professionals.collegeboard.com/profdownload/final-report.pdf>.
- College Board, 2008a. Coming to our Senses: *Education and the American Future*. New York: The College Board. Retrieved April 5, 2014 from <http://advocacy.collegeboard.org/sites/default/files/comingto-our-senses-college-board-2008.pdf>.
- College Board, 2008b. *Winning the Skills Race and Strengthening the Middle Class: An Action Agenda for Community Colleges*. New York: The College Board. Retrieved in August 2014 from http://professionals.collegeboard.com/profdownload/winning_the_skills_race.pdf.
- Combs, J.P., Slate, J.R., Moore, G.W., Bustamante, R., Onwuegbuzie, A.J., & Edmonson, S. 2010. Gender differences in College preparedness: A state-wide study. *The Urban Review*, (42):441-457.
- Comfort, H., Baker, P. & Cairns, L. 2002. *A qualitative study investigating factors which help and hinder learning progression Further Education to Higher Education*. Report on the transitions project. Leicester College.
- Comings, J.P. 2007. Persistence: Helping adult education students reach their goals. Boston: Massachusetts Institute for a New Commonwealth.
- Conley, D.T. 2007a. Toward a more comprehensive conception of college readiness. Eugen, Oregon: Educational Policy Improvement center. San Francisco: Jossey-Bass.
- Conley, D.T. 2007b. The challenge of College readiness. *Educational Leadership*, 64(7):23-39. San Francisco: Jossey-Bass.
- Conley, D.T. 2008. Rethinking college readiness. *New Directions for Higher Education*, (144):3-13.

- Conley, D.T. 2010. *College and career ready: Helping all students succeed beyond high school*. San Francisco: Jossey-Bass.
- Conway, D.G. 2007. The role of internal resources in academic achievement: *Exploring the meaning of self-compassion in the adaptive functioning of low-income college students*. San Francisco: Jossey-Bass.
- Cook, A. 2009. The root of attrition. In Cook, A. & Rushton, B.S. (Eds.). *How to recruit and retain Higher Education students: A handbook of good practice*. New York: Taylor & Francis.
- Cook, A., Rushton, B.S., McCormick, S.M. & Southall, D.W. 2005. *Guidelines for the management of student transitions*. Coleraine: University of Ulster.
- Cook, A. & Rushton, B.S. 2008. *Practices and policies to promote retention*. New York: Taylor & Francis.
- Cooper, D.R. & Schindler, P.S. 2003. *Business research methods*. (8thEd.) USA: McGraw-Hill.
- Corbin, J. & Strauss, A. 2008. Basics of qualitative research: Techniques and procedures for developing grounded theory. (3rdEd.). Thousand Oaks, CA: Sage.
- Cortes, C.M. 2013. Profile in action: Linking admission and retention. New directions for Higher Education, No. 161. Wiley Periodicals. Wiley Online Library from wileyonlinelibrary.com.
- Cosser, M. & Du Toit, J. 2002. *From school to higher education: Factors affecting the choice of grade 12 learners*. Cape Town: HSRC Publishers.
- Costley, C., Elliott, G., & Gibbs, P. 2010. *Doing work based research: Approaches to enquiry for insider-researchers*. London: Sage.
- Council of Europe (CE). 1996. Project on Access to Higher Education in Europe: Working report. Part 1 Synthesis and Recommendations. Strasbourg: Council of Europe.
- Council of Europe (CE). 1999. Lifelong Learning for Equity and Social Cohesion: A new challenge to Higher Education. Working on meeting the needs of all students in a changing society. Strasbourg: Council of Europe.
- Council of Europe (CE). 2001. Lifelong Learning for Equity and Social Cohesion: A new challenge to Higher Education. Final Conference, Paris: Council of Europe.
- Council of Higher Education (CHE), 2006. The impact of changing funding sources on Higher Education institutions in South Africa. Higher Education Monitor, No. 4, 2006. South Africa: Pretoria.
- Council of Higher Education (CHE), 2010. Higher Education Monitor access and throughput in South African Higher Education: Three case studies, Higher Education Monitor No. 9, March, 2010. South Africa: Pretoria.
- Council on Higher Education (CHE). 2010. Higher Education Monitor. Access and throughput in South African Higher Education: Three case studies. HE Monitor (9). Council on Higher Education: Pretoria. http://www.che.ac.za/documents/d000206/Higher_Education_Monitor_9pdf

- Coutinho, S.A. 2007. The relationship between goals, metacognition, and academic success. *Educate*, 7(1):39-47.
- Coy-Ogan, L. 2009. Perceived factors influencing the pursuit of Higher Education among first-generation College students: A dissertation presented to the faculty of the School of Education Liberty University. Liberty University.
- Creswell, J. W. 2005. *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. (3rdEd.). Upper Saddle River, NJ: Merrill.
- Creswell, J.W. 1998. *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage Publications.
- Creswell, J.W. 2007. *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.
- Creswell, J.W. 2009. *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd Ed.). Thousand Oaks, CA: Sage.
- Creswell, J.W. 2014. *Research design: Qualitative, quantitative, and mixed methods approaches*. (4thEd.). Thousand Oaks, CA: Sage.
- Creswell, J.W. & Clark, V.L.P. 2007. *Designing and conducting mixed methods research*. University of Nebraska-Lincoln: Sage.
- Creswell, J.W. & Plano-Clark, V.L. 2007. *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.
- Creswell, J.W. & Clark, V.L.P. 2011. *Designing and conducting mixed methods research*. (2ndEd.). University of Nebraska-Lincoln: Sage.
- Creswell, J.W. & Tashakkori, A. 2007a. Developing publishable mixed methods manuscripts. *Journal of Mixed Methods Research*, (1):107-111.
- Creswell, J.W. & Tashakkori, A. 2007b. Differing perspectives on mixed methods research. *Journal of Mixed Methods Research*, (1):303-308.
- Creswell, J.W., Fetters, M.D., & Ivankova, N.V. 2004. Designing a mixed methods study in primary care. *Annals of Family Medicine*, 2(1):7-12.
- Crismann, E.P. 2012. *Beyond the numbers: Making sense of statistics*. Virginia: NSTA Press.
- Crisp, G. & Nora, A. 2009. Hispanic student success: Factors influencing the persistence and transfer decisions of Latino community college students enrolled in developmental education. *Research in Higher Education*, 51(1):175-194.
- Crisp, G. & Nora, A. 2010. Hispanic student success: Factors influencing the persistence and transfer decisions of Latino Community College students enrolled in developmental education. *Research in Higher Education*, 51(2):175-194.

- Cronbach, L. J. 1951. Coefficient alpha and the internal structure of tests. *Psychometrika*, (16): 297-334 (28,307 citations in Google Scholar as of 4/1/2018).
- Crosling, G. 2003. Connecting new students. A faculty academic transition program, *Widening Participation and Lifelong Learning*, 5(1):22-54.
- Crosling, G., As-Saber, S. & Rahman, N. 2008. Postgraduate international students and independent learning. Paper presented at an international conference on Postgraduate Education. Penang, Malaysia.
- Crosling, G., Edwards, R. & Schroder, W. 2008. Internationalizing the curriculum. The implementation experience in a faculty of Business and Economics, *Journal of Higher Education Policy and Management*, 30(1):284-331.
- Crosling, G., Heagrey, M. & Thomas, L. 2009. Improving student retention in Higher Education: Improving teaching and learning. *Australian Universities' Review*, 51(2):9-18.
- Crosling, G., Thomas, L. & Heagney, M. 2008. Student success and retention. In Crosling, G., Thomas, T. & Heagney, M. (Eds.). *Improving student retention in Higher Education: The role of teaching and learning*. London: Routledge.
- Crosling, G., Thomas, L., & Heagney, M. 2008. Conclusions and curriculum-based retention approaches: Some suggestions for future action. In Crosling, G., Thomas, L. & Heagney, M. (Eds.). *Improving student retention in Higher Education: The role of teaching and learning*, 1:166-182. London: Routledge.
- Cunningham, A.F., Erisman, W., & Looney, S.M. 2007. From aspirations to actions: The roles of middle school parents in marking the dream of college a reality. Washington DC: Institute for Higher Education Policy.
- Curtis, B. & Curtis, C. 2011. Social research: A practical introduction. Reviewed by Associate Professor Keith Tuffin, School of Psychology, Massey University.
- Davidson, W. & Beck, H.P. 2019. Analyzing the commitment of college students using a brief, contextualized measure of need satisfaction from the perspective of self-determination theory. *Psychol. Rep.* 2019, 122, 1145–1166.
- Davies, P. 2001. *Closing the achievement gap: Colleges making a difference*. London. LSDA.
- Davies, P. & Rudden, T. 2000. *Differential achievement: What does the ISR profile tell us?* London. LSDA.
- Davies, T., Bamber, R., Rudge, L. & Stobo, M. 2000. *When the going gets tough. An investigation into patterns of student withdrawals in Pembrokeshire College during 1998/99*. Unpublished report, Pembrokeshire College.
- Day, J.C. & Newburger, E.C. 2002. *The big payoff: Educational attainment and synthetic estimates of work-life earnings*. U.S. Census Bureau.
- Daymon, C. & Holloway, I. 2002. Qualitative research methods in public relations and marketing communications. London and New York. FEDA.

- Dayton, E. 2012. First in my family: Family relationships and educational mobility. PhD dissertation, Johns Hopkins University.
- DeAngelo, L., Franke, R, Hurtado, S., Pryor, J.H. & Tran, S. 2011. *Completing college: Assessing graduation rates at four-year institutions*. Los Angeles: Higher Education Research Institute, Los Angeles: University of California.
- Deary, I.J., Watson, R. & Hogston, R. 2003. A longitudinal cohort study of burnout and attrition in nursing students. *Journal of Advanced Nursing*, 43(1):71-81.
- Dee, T.S. 2004. Are there civic returns to education? *Journal of Public Economics*, 88(9-10):1697-1720.
- Deil-Amen, R. 2011. Socio-academic integrative moments: Rethinking academic and social integration among two-year college students in career-related programs. *The Journal of Higher Education*, 82(1):54-91.
- De Jager, J.W. & Du Plooy, A.T. 2006. Student's expectations of service quality in tertiary education: A comparison between prospective and current students, *Acta Commercii*, (6):10-19.
- DeLong, C., Radcliffe, P. & Gorny, L. 2007. Recruiting for retention: Using data-mining and machine learning to leverage the admissions process for improved freshman retention. Paper presented at the CSRDE National Symposium on Student Retention. Milwaukee: WI.
- Dennis, J.M., Phinney, J.S. & Chuateco, L.I. 2005. The role of motivation, parental support, and peer support in the academic success of ethnic minority first-generation college students. *Journal of College Student Development*, 46(3):223-236.
- Denzin, N.K. & Lincoln, Y.S. 2000. *Handbook of qualitative research*. (2ndEd.). New York: Sage Publications.
- Denzin, N.K. & Lincoln, Y.S. 2011. *The SAGE Handbook of Qualitative Research*. Los Angeles: Sage.
- Denzin, N.K. 1994. The art and politics of interpretation. In Denzin, N.K. & Lincoln, T.S. (Eds.). *Handbook of Qualitative Research*, 500-515. Thousand Oaks. Sage.
- Department for Education and Skills. 2006a. *Widening Participation in Higher Education*. London: Department for Education and Skills.
- Department for Education and Skills. 2006b. Student Support: Statistics of Student Loans for Higher Education in United Kingdom SFR 12/2006, Department for Education and Skills, United Kingdom. London.
- Department of Education (DoE). 1997. Education White Paper 3: A Programme for the Transformation of Higher Education. Government Gazette No.18207. 15 August. Pretoria: Government Printers.
- Department of Education (DoE). 1998. White Paper 4. Pretoria: Department of Education. Government Printers.

Department of Education (DoE). 2007. National Education Infrastructure Management System (NEIMS). National Assessment Report (Public Ordinary Schools). Pretoria: Department of Education. Government Printers.

Department of Education (DoE). 2008. *Report of the Ministerial Committee on transformation and social cohesion and the elimination of discrimination in Public Higher Education Institutions*, Pretoria: Department of Education. Government Printers.

Department of Education. 2009. *National Norms and Standards for funding Further Education and Training Colleges (NSF-TVET Colleges)*. 16 March. Pretoria: Department of Education. Government Printers.

Department of Education. 2008. *National plan for Further Education and Training Colleges in South Africa*. 12 December. Pretoria: Department of Education. Government Printers.

Department of Education and Early Childhood Development. 2013. Identifying students at risk, accessed 15 April 2013, from <http://www.education.vic.gov.au/school/principals/participation/pages/disengagedrisk.aspx>

Department of Education and Training (NSW). 2006. *School is for me: Pathways to student engagement*, accessed 16 April 2013, from <http://www.sydneyr.det.nsw.edu.au/Equity/documents/PSP/PSPPage-RESAERCH-SchoolIsForMe.pdf>

Department of Education, Science and Training (DEST). 2004. *Learning and Teaching Performance Fund: Issues Paper*. Department of Education Science and Training. Canberra, Australia.

Department of Employment, Science and Training (DEST). 2005. *Review of Higher Education Outcome Performance Indicators*. Report prepared by access Economics Pty Ltd. Canberra, Australia

Department of Higher Education and Training. 2010. *Challenges facing the TVET College Subsystem*. Pretoria: Department of Higher Education. Government Printers.

Department of Higher Education and Training (DHET). 2010b. Document for discussion: Challenges facing the FET College subsystem. *Discussion document presented to FET Round Table Conference*, 9 April 2010.

Department of Higher Education and Training (DHET). 2015. *Further Education and Training Colleges Amendment Act No. 1 of 2013 on 1 April 2015*. Government Gazette No. 38534, vol. 597. Pretoria: Republic of South Africa.

Department of Higher Education and Training. 2012. *Green Paper for Post-School Education and Training*. Pretoria: Department of Higher Education. Government Printers.

Department of Higher Education and Training (DHET). 2012. Green Paper for Post-School Education and Training. Invitation to respond to the Green Paper for Post-School Education and Training. Pretoria: Department of Higher Education. Government Printers.

- Department of Higher Education and Training. 2011. *National Skills Development Strategy (NSDS III)*. Pretoria: Department of Higher Education. Government Printers.
- Department of Higher Education and Training (DHET). 2010a. *Report of the Ministerial Committee on the Review of the National Student Financial Aid Scheme*. Pretoria: Department of Higher Education. Government Printers.
- Department of Higher Education and Training (DHET). 2011. *Report on the Ministerial Committee for the Review of the Provision of Student Housing at South African Universities*, Pretoria: Department of Higher Education. Government Printers.
- Department of Higher Education and Training (DHET). 2010. *Report of the Ministerial Committee on the review of the National Student Financial Aid Scheme*, Pretoria: Department of Higher Education. Government Printers.
- Department of Higher Education and Training (DHET). 2013. *White Paper on Post-School Education and Training in South Africa*: Pretoria: Department of Higher Education. Government Printers.
- Department of Higher Education and Training. 2019. *Annual Performance Plan*. Pretoria.
- Department of Higher Education and Training. 2018. National Skills Authority Evaluation of the National Skills Development Strategy (NSDS III) 2011-2016. Pretoria.
- Department of Higher Education and Training. 2018. *Statistics on post-school education and training in South Africa: 2016*. Pretoria.
- Department of Higher Education and Training. 2019. Statistics on Post-School Education and Training. TVETMIS 2017, data extracted in January 2019
- De Vos, A.S. 2006. *Research at grass roots. For the social sciences and human services professions*. Pretoria: Van Schaik.
- De Vos, A.S. 2000. *Research at grass roots. A primer for the caring professions*. Pretoria: Van Schaik.
- De Vos, A.S., Strydom, H., Fouché, C.B., & Delpont, C.S.L. 2002. *Research at grass roots for the social sciences and human service professions*. (2ndEd.). Pretoria: Van Schaik.
- De Vos, A.S., Strydom, H., Fouché, C.B. & Delpont, C.S.L. 2005. *Research at grass roots. For the social sciences and human services professions*. (3rdEd.). Pretoria: Van Schaik.
- De Vos, A.S., Strydom, H., Fouché, C.B., & Delpont, C.S.L. 2011. *Research at grass roots for the social sciences and human service professions*: (4thEd.). Pretoria: Van Schaik.
- DesJardins, S. L. 2003. Event history methods: Conceptual issues and application to student departure from college. In Smart, J.C. (Ed.). *Higher education: Handbook of theory and research*, (18):421-471.
- DesJardins, S.L., McCall, B.P., Ahlburg, D.A., & Moye, M.J. 2002. Adding a timing light to the tool box. *Research in Higher Education*, 43(1):83-114.

- DeVellis, R.F. 2003. *Scale development: Theory and applications* (2ndEd.). Thousand Oaks, California: Sage.
- Dey, I. 1993. *Qualitative data analysis: A user-friendly guide for social scientists*. London and New York. Sega.
- DfES .2006. Education (School Teachers' Pay and Conditions) (No.2) Order 2006. Statutory Instrument 2006 No. 2133, Department for Education and Skills. Available at: <http://www.opsi.gov.uk/SI/si2006/20062133.htm#n2>.
- Dhesai, A.S. 2001. Expectations and post-school choice: Some data from India. *Education and Training*, 43(1):14-24.
- Diamantopoulos, A. & Schlegelmilch, B.B. 2000. *Taking the fear out of data analysis: A step-by-step approach*. London: Business Press/Thomson Learning.
- Dibben, N. 2004. The influence of socio-economic background on student experience of teaching and learning in a British University Music Department. *British Journal of Music Education*. London.
- Dodge, T.M., Mitchell, M.F. & Mensch, J.M. 2009. Student retention in athletic training education programs. *Journal of Athletic Training*, 44(2):197.
- Donalson, W.G. & McNicholas, C. 2004. Understanding the postgraduate education market for UK based students. *Journal of Non-profit & Voluntary Environment Marketing*, 9(4):346-360.
- Dougherty, C., Mellor, L., & Smith, N. 2006. *Identifying appropriate College readiness standards for all students*. Issue Brief No. 2. Austin: National Center for Educational Accountability.
- Dougherty, K.J. & Kienzl, G.S. 2006. It's not enough to get through the open door: Inequalities by social background in transfer from community colleges to four-year colleges. *Teachers College Record*, 108(3):452-487.
- Dowd, A.C. 2004. Income and financial aid effects on persistence and degree attainment in public Colleges. *Educational Policy Analysis Archives*, 12(21):12-33.
- Drake, J. 2011. The role of academic advising in student retention and persistence. *About Campus*, 16(3):8-12.
- Drew, T. & Michael, C. 2006. How do students choose a university? An analysis of application to universities in Ontario, Canada. *Research in Higher Education*, 47(7):781-800.
- Du Plessis, P.J. & Rousseau, G.G. 2003. *Buyer behaviour: A multi-cultural approach*, (3rdEd). Cape Town: Oxford.
- Du Plooy, A.T. & De Jager J.W. 2004. *An investigation into the marketing orientation of a tertiary institution*. GBATA Conference 2004, Cape Town, South Africa.
- Du Plooy-Cilliers, F., Davis, C., & Bezuidenhout, R. 2014. *Research matters*. Cape Town: Juta.
- Duckworth, A., Peterson, C., Matthews, M.D., & Kelly, D.R. 2007. Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 101(6):1317-1331.

- Duncan, K. 2017. Developing lecturers at VET institutions through engagements with industry: The South African experience. In Eicker, F., Haseloff, G., & B. Lennartz. (Eds.), *Vocational Education and Training in Sub-Saharan Africa: Current Situation and Development*. Retrieved from <https://doi.org/10.3278/6004570w>
- Durden, G., & Ellis, L. 2005. The effects of attendance on student learning in Principles of Economics. *American Economic Review*, 85(5):214-235.
- Durrheim, K. 2004. Research design. In Terre Blanche, M. & Durrheim, K. (Eds.). *Research in Practice*. Cape Town: Juta.
- Eckel, P.D. 2001. A world apart? HE transformation in the US and South Africa. *Higher Education Policy*, 14(2):103.
- Edwards, D., Coates, H., & Friedman, T. 2012. A survey of international practice in university admissions testing. *Higher Education Management and Policy*, 24(1):87-104.
- Eichhorst, W. 2012. A roadmap to Vocational Education and Training systems around the world. IZA Discussion papers 7110. Institute for the Study of Labour.
- Eicker, F., Haseloff, G., & Lennartz, B. 2017. (Eds.). Vocational Education and Training in Sub-Saharan Africa. <https://www.wbv.de/artikel/6004570w>
- Engle, J., & O'Brien, C. 2007. *Demography is not destiny: Increasing the graduation rates of low-income college students at large public universities*. Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education.
- Epstein, J.P. 2009. Behind the SAT-Optional movement: Context and controversy. *Journal of College Admission*, (204):8-19.
- Espinoza, S., Bradshaw, G., & Hausman C. 2002. The importance of college factors from the perspective of high school counselors. *College and University*, 77(4):19-24.
- European Commission (EC). 2001a. *The memorandum on lifelong learning*. Brussels: European Commission.
- European Commission (EC). 2001b. *Making a European area of lifelong learning a reality*. Brussels: European Commission.
- Evans, N.J., Forney, D.S. & Guido-DiBrito, F. 1998. *Student development in college: Theory, research, and practice*. San Francisco: John Wiley & Sons, Inc.
- Fallis, R.K. & Optotow, S. 2003. Are students failing schools or are schools failing students? Class cutting in high school. *Journal of Social Issues*, (59):103-119.
- Fayolle, A., Kyro, P. & Ulijn, J. 2005. *Entrepreneurship research in Europe: Outcomes and perspectives*. Edward Elgar Publishing, Inc.
- Ferrier, F. & Heagney, M. (Eds.). 2008. Higher Education in diverse communities: Global perspectives local initiatives. Dublin: Higher Education Authority.

- Fetterman, D.M. 2010. *Ethnography: Step-by Step Guide*. (3rdEd.). Sage, Los Angeles.
- Fewell, R.R., & Deutscher, B. 2004. Contributions of early language and maternal facilitation variables to later language and reading abilities. *Journal of Early Intervention*, 26 (2):132-145.
- Fike, D.S. & Fike, R. 2008. Predictors of first-year student retention in the community college. *Community College Review*, (36):68-88.
- Finn, J.D. & Zimmer, K.S. 2012. Student engagement: What is it? Why does it matter? In Christenson, S., Reschly, A.L. & Wylie. C., (Eds.). *Handbook of research on student engagement*, 97-131.
- Fiske, E.B. & Ladd, H.F. 2003. Balancing Public and Private Resources for Basic Education School Fees in Post-Apartheid South Africa. *Working Paper Series*. Sanford Institute of Public Policy. USA.
- Fiske, E.B. & Ladd, H.F. 2004. *Elusive equality: Education reform in post-apartheid South Africa*. Washington DC: Brookings.
- Fletcher, J.M. 2012. Similarity in peer college preferences: New evidence from Texas. *Social Science Research*, 41(2):321-330.
- Flick, U. 2014. *An introduction to qualitative research* (6thEd.). London: Sage Publications.
- Forsyth, D.R., Lawrence, N.K., Burnette, J.L. & Baumeister, R.F. 2007. Attempting to improve the academic performance of struggling College students by bolstering up their self-esteem: An intervention that backfired. *Journal of Social and Clinical Psychology*, 26(4):447-459.
- Foster, A. 2005. *Realizing the potential: Review of the future of the Further Education Colleges*. Sherwood Park, Annesley, Nottinghamshire: Department for Education and Skills Publications.
- Fox, W., & Bayat, M. S. 2007. *A Guide to Managing Research*. Juta Publications.
- France, M.K., Finney, S.J., & Swerdzewski, P. 2010. Students' group and member attachment to their university: A construct validity study of the university attachment scale. *Educational and Psychological Measurement*, 70(3):440-458.
- Fraser, S. & Bosanquet, A. 2006. The curriculum? That's just a unit outline, isn't it? *Studies in Higher Education*, 31(3):269-284.
- Fraser, W.F. & Killen, R. 2003. Factors influencing academic success or failure of first-year and senior university students: Do education students and lecturers perceive things differently? *South African Journal of Education*, 23(4):254-260.
- Fraser, W.F. & Killen, R. 2005. The perceptions of students and lecturers of some factors influencing academic performance at two South African Universities. *Perspectives in Education*, 23(1):25-39.
- Fredericks, J.A. & McColskey, W. 2012. The measurement of student engagement: A comparative analysis of various methods and student self-report instruments. In Christenson, S., Reschly, A.L. & Wylie. C. (Eds.). *Handbook of research on student engagement*, 763-782.

- Fredericks, J.A., Blumenfeld, P.C. & Paris, A.H. 2004. School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74 (1):59-109.
- Freeman, B. 2000. *Survey of student non-completers October 1999*. Unpublished report, Reigate College.
- Freeman, J.P., Hall, E.E., & Bresciani, M.J. 2007. What leads students to have thoughts, talk to someone about, and take steps to leave their institution? *College Student Journal*, 41(4):755-770.
- Freeman, T. M., Anderman, L.H. & Jensen, J.M. 2007. Sense of belonging in College freshmen at the classroom and campus levels. *Journal of Experimental Education*, (75):203-220.
- Freeth, R. & Ngidi, W. 2006. *Tracking the 2002 REAP cohort: An assessment of the throughput rate of students taken onto the Rural Education Access Programme*. Cape Town: REAP.
- French, B.F., Immekus, J.C. & Oakes, W.C. 2005. An examination of indicators of engineering students' success and persistence. *Journal of Engineering Education*, 94(A):419-425.
- Friedman, T.H. 2005. *The world is flat*. New York: Farrar, Straus and Giroux.
- García-Ros, R., Pérez-González, F., Cavas-Martínez, F., Tomás, J.M. E. 2018. Effects of pre-college variables and first-year engineering students' experiences on academic achievement and retention: A structural model. *Int. J. Technol. Des. Educ.* 2018, 1–14. (in press).
- Gardiner, M. 2008. Education in rural areas. Issues in education policy number 4. Centre for Education Policy Development (CEPD). Johannesburg.
- Gay, L.R. & Airasian, P. 2003. *Educational research: Completeness for analysis and application*. New Jersey: Pearson Education.
- Geiser, S. 2009. Back to the basics: In defense of achievement (and achievement tests) in College admissions. *Change: The magazine of Higher Learning*, 41(1):16-23.
- Geiser, S., & Santelices, M. 2007. Validity of high school grades in predicting student success beyond the freshman year: High school record vs. standardized tests as indicators of four-year College outcomes. Berkeley: Center for studies in Higher Education, University of California.
- George, J., Cowan, J., Hewitt, L. & Cannell, P. 2004. Failure dances to the tune of insecurity: Affective issues in the assessment and evaluation of access learning. *Journal of Access, Policy and Practice*, 1(2): 1-21.
- Gerring, J. 2012. *Social science methodology: A unified framework*. (2ndEd.). Cambridge: Cambridge University Press.
- Gibbs, G.R. 2007. *Analyzing qualitative data: The SAGE qualitative research kit*. London: SAGE Publications.
- Gillborn, D. 2001. Race equality and education policy. *Education Review*, 15(1):21-26.
- Gillis, C. 2007. *Leaving seats empty: Exploring student attrition in an undergraduate Health Sciences program*. Mount Saint Vincent University.

- Glesne, C. & Peshkin, P. 1992. *Becoming qualitative researchers: An introduction*. New York, NY: Longman.
- Gliem, J.A. & Gliem, R.R. 2003. Calculating, interpreting and reporting Cronbach's alpha reliability coefficient for Likert type scales. Presented at the Midwest Research – 331 to Practice conference in adult, continuing, and community education, Ohio State University, Columbus.
- Glover, D., Law, S. & Youngman, A. 2002. Graduateness and employability: Student perceptions of the personal outcomes of university education. *Research in Post-Compulsory Education*, 7(3):10-33.
- Gomm, R. 2008. *Social research methodology. A critical introduction*. (2ndEd.). Trowbridge, Wiltshire: Cromwell Press Ltd.
- Goodman, S., Jaffer, T., Keresztesi, M., Mamdani, F., Mokgatle, D., Musariri, M., Schlechter, A., & Pires, J. 2011. An investigation of the relationship between students' motivation and academic performance as mediated by effort. *South African Journal of Psychology*, 41:373-385.
- Gorard, S., Smith, E., May, H., Thomas, L., Adnett, N. & Slack, K. 2006. *Review of widening participation research: Addressing the barriers to participation in Higher Education*. York: Higher Education Academy.
- Gottfredson, L., & Saklofske, D. 2009. Intelligence: Foundations and issues in assessment. *Canadian Psychology*, 50(3):183-195.
- Gravetter, F.J. & Wallnau, L.B. 2004. *Statistics for the behavioral sciences*. (6th Ed.). Belmont, CA: Wadsworth.
- Gravetter, F.J. & Wallnau, L.B. 2013. *Statistics for the behavioral sciences* (9thEd.). New York: Wadsworth.
- Gray, D. 2009. *Doing research in the real world*. (2ndEd.). London: Sage.
- Gray, M. & Daugherty, M. 2004. Factors that influence students to enroll in technology education programmes. *Journal of Technology Education*, 15(2):23-31.
- Gray, M.J., Vernez, G., Rolph, E. 1996. Student access and the "new" immigrants: Assessing their impact on institutions. *Change*, 41-47.
- Greenwood, D. 2010. A critical analysis of sustainability education in schooling's bureaucracy: Barriers and small openings in teacher education. *Teacher Education Quarterly*, 1(37): 139-154.
- Gregory, J. 2014. 10 ways students search college's today- and how to adapt: Understand how students choose a school and recalibrate your approach for recruitment success. *University Business*, 17. Retrieved from <http://www.universitybusiness.com/article/10-ways-students-search-collegestoday%E2%80%94and-how-adapt>
- Griffin, J. G. 2008. A case study: The preparedness of adult education students for College-level education: (Doctoral dissertation, Liberty University). Available from ProQuest Dissertations & Theses.

- Grobler, P., Bothma, R., Brewer, C., Carey, L., Holland, P. & Warnich, S. 2011. *Contemporary issues in Human Resource Management*. (4thEd). Southern African: Oxford University Express.
- Guo, G. & Harris, K.M. 2000. The mechanisms mediating the effects of poverty on children's intellectual development. *Demography*, 37(4):431-447.
- Haase, H., & Lautenschläger, A. 2011. Career choice motivations of university students. *International Journal of Business Administration*, 2(1):1-13.
- Habley, W. R. & McClanahan, R. 2004. What works in student retention? Two-year public Colleges. Retrieved October 2015, from <http://www.act.org/path/postsec/droptables/pdf/>
- Habley, W. R. 2000. Current practices in academic advising. In V. N. Gordon, W. R. Habley, & Associates, *Academic advising: A comprehensive handbook*. 35-43. San Francisco: Jossey-Bass.
- Habley, W.R. (Ed.). 2004. *The status of academic advising: Findings from the ACT sixth national survey*, Monograph No. 10. National Academic Advising Association. Manhattan, KS.
- Hagedorn, L.S. 2005. How to define retention: A new look at an old problem. In Seidman, A. (Ed.). *College Student Retention*, 1:89-105. Westport: Praeger Publishers.
- Hagedorn, L.S. 2012. How to define retention: A new look at an old problem. In Seidman, A. (Ed.). *College student retention: Formula for student success* (2ndEd.). Lanham, MD: Rowman & Littlefield.
- Hagedorn, L.S., & Fogel, S. 2002. Making school to college programs work: Academics, goals, and aspirations. In Tierney, W.G. & Hagedorn, L.S. (Eds.). *Increasing access to college: Extending possibilities for all students*, 170-174. Albany, NY: State University of New York Press.
- Hagedorn, L.S., Lester, J. Moon, H.S. & Tibbetts, K. 2006. Native Hawaiian community College students: What happens? *Community College Journal of Research and Practice*, (30):21-39.
- Hagedorn, L.S., Maxwell, W. & Hampton, P. 2001. Correlates of retention for African-American males in community Colleges. *Journal of College Student Retention*, 3(3):243-263.
- Haggis, T. & Pouget, M. 2002. Trying to be motivated: Perspectives on learning from younger students accessing Higher Education. *Teaching in Higher Education*, 7(3):323-336.
- Haggis, T. 2003. Constructing images of ourselves? A critical investigation into 'approaches to learning' research in higher education. *British Educational Research Journal*, 34(1):89-104.
- Hagy, A.P. & Staniec, F.O. 2002. Immigrant status, race and institutional choice in Higher Education. *Economics of Education Review*, (21):381-392.
- Haigh, M.J. 2002. Internationalization of curriculum: Designing inclusive education for a small world. *Journal of Geography in Higher Education*, 26(1):49-66.
- Hair, J.F., Bush, R.P., & Ortinau, D.J. 2000. *Marketing research*. Singapore: McGraw- Hill.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. 2006. *Multivariate data analysis*. (6thEd.). Upper Saddle River, NJ: Pearson Education.

- Hamrick, F.A. & Stage, F.K. 2004. College predisposition at high-minority enrolment, low income schools. *Review of Higher Education*, 27(2):151-168.
- Hannaway, D. 2012. The influence of ecosystemic factors on black student teachers' perceptions and experiences of Early Childhood Education. MEd. Dissertation, University of Pretoria, Pretoria.
- Hannukainen, K. 2008. *Why do Chinese students choose to study in the Helsinki Region?* [Online]. Available at: <http://www.helsinki.fi/news/archive/8-2008/19-12-12-42>. Accessed in July 2014.
- Hansen, M.N. & Mastekaasa, A. 2006. Social origins and academic performance at University. *European Sociological Review*, 22(3):277-291.
- Hanson, W.E., Creswell, J.W., Plano, C., Vicki L., Petska, K.S., & Creswell, J. D. 2005. Mixed Methods Research Designs in Counselling Psychology. *Faculty Publications, Department of Psychology*. Paper 373.
- Harackiewicz, J.M., Barron, K.E., Tauer, J.M., & Elliot, A.J. 2002. Predicting success in college: A longitudinal study of achievement goals and ability measures as predictors of interest and performance from freshman year through graduation. *Journal of Educational Psychology*, (94):562-575.
- Haskins, R. & Rouse, C.E. 2013. Time for change: A new federal strategy to prepare disadvantaged students for College. The future of children. Princeton-Brookings, Policy Brief.
- Hausmann, L.R.M., Schofield, J.W. & Woods, R.L. 2007. Sense of belonging as a predictor of intentions to persist among African Americans and white first-year college students. *Research in Higher Education*, 48(7):803-839.
- Hausmann, L.R.M., Ye, F., Schofield, J. & Woods, R. 2009. Sense of belonging and persistence in white and African American first-year students. *Research in Higher Education*, 50(7):649-669.
- Hawkins, D.I., Best, R.J. & Coney, K.A. 2004. *Consumer behaviour: Building marketing strategy*. (9thEd.). New York: McGraw-Hill.
- Heagney, M. 2004. *Dropping out in Australia: Young students from low socio-economic backgrounds and non-completion*. Staffordshire: Staffordshire University.
- Heron, J. & Reason, P. 1997. A participatory inquiry paradigm. *Qualitative Inquiry*, 3(3):274-294.
- Hersey, P., Blanchard, K.H. & Johnson, D.E. 2008. *Management of organizational behavior: Leading Human Resources*. (9thEd.). Upper Saddle New Jersey: Pearson.
- Hesel, R.A. 2004. Campus visits drive college choice. *Student Poll*, 5(5):1.
- Hesse-Biber, S.N. & Leavy, P. 2011. *The practice of qualitative research*. (2ndEd.). Thousand Oaks, CA: Sage.
- Hesse-Biber, S.N. 2010. *Mixed methods research: Merging theory with practice*. New York, NY: Guilford.

- Hicks, T. 2003. First generation and non-first generation pre-College students' expectations and perceptions about attending College. *Faculty working paper*, School of Education paper 10. Fayetteville State University. USA.
- Hinton, P.R. 2014. *Statistics explained*. (3rdEd.). London: Routledge
- Hirschy, A.S., Bremer, C.D. & Castellano, M. 2011. Career and Technical Education (CTE) student success in Community Colleges. *Community College Review*, 39(3):296-318
- Hoffman, M., Richmond, J., Morrow, J. & Salomone, K. 2002-2003. Investigating "sense of belonging" in first-year college students. *Journal of College Student Retention: Research, Theory and Practice*, 4(3):227-256.
- Hohmann, U. 2006. *Quantitative methods in education research*. Centre for Teaching Mathematics: University of Plymouth.
- Hoops, L.D., & Artip, A. 2016. College student success course takers' perceptions of college student effectiveness. *Learning Assistance Review*, 21(2): 55-67. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1114471.pdf>
- Horn, L. & Kojaku, L.K. 2001. *High school academic curriculum and the persistence path through college: Persistence and transfer behavior of undergraduates*. National Center for Education Statistics. NCES 2001-163.
- Horn, L.J. & Berger, R. 2004. *College Persistence on the Rise? Changes in 5-Year Degree Completion and Postsecondary persistence rates between 1994 and 2000*. Washington, DC: National Center for Education Statistics.
- Horstmanshof, L. & Zimitat, C. 2007. Future time orientation predicts academic engagement among first-year university students, *British Journal of Educational Psychology*, (77):703-718.
- Hossler, D. 2006. Managing student retention: Is the glass half full, half empty, or simply empty? *College and University*, 81(2):11-14.
- Hossler, D., Ziskin, M., Gross, J.P.K., Kim, S. & Cekik, O. 2009. Student aid and its role in encouraging persistence. In Smart, J.C. (Ed.). *Higher Education: Handbook of Theory and Research*. New York: Springer.
- Hossler, D., Ziskin, M., Moore III, J.V., Wakhungu, P.K. 2008. The Role of Institutional Practices in College Student Persistence. *Paper presented at the 2008 Annual forum of the Association for Institutional Research (AIR)* in Seattle, WA.
- Houghton, A.M. & Ali, H. 2000. Voices from the community: The challenge of creating a culturally relevant curriculum and inclusive learning environment, *Education Line*.
- Howard, E. 2018. Installing collaborative spaces increased retention at NMSU engineering diverseeducation.com/article/123097.
- Howell, J. & Smith, J. 2011. The College keys compact. Getting into College: A cross-cohort examination of College preparations by Lower-SES Students. New York: Community College Research Center.

- Hoyer, W.D. & Macinnis, D.J. 2001. *Consumer behavior*. (2ndEd.). Boston: Houghton Mifflin.
- Hoyt, J.F. & Brown, A.B. 2003. Identifying College choice factors to successfully market your institution. *College and University*, 78(4):3-5.
- Hughes, K.L., Rodriguez, O, Edwards, L., & Belfield, C. 2012. *Broadening the benefits of dual enrolment reaching underachieving and underrepresented students with career- focused programs*. New York: Community College Research Center, Columbia University.
- Humphrey, R. 2006. Pulling structured inequality into higher education. The impact of part-time working on English University students. *Higher Education Quarterly*, 60(2):70-86.
- Hunter, M.S. & White, E.R. 2004. Could fixing academic advising fix Higher Education? *About Campus*, 9(1):20-25.
- Hurtado, S. & Carter, D.F. 1997. Effects of college transition and perceptions of the campus racial climate on Latino College students' sense of belonging. *Sociology of Education*, (1):324-345.
- Hurtado, S. & Ponjuan, L. 2005. Latino educational outcomes and the campus climate. *Journal of Hispanic Higher Education*, 4(3):235-251.
- Hurtado, S., Dey, E.L., Gurin, P. & Gurin, G. 2003. College environments, diversity, and student learning. In Smart, J.C. (Ed.). *Higher education: Handbook of theory and research*, (18):145-190. UK: Kluwer Academic Publishers.
- Hurtado, S., Han, J.C., Sáenz, V.B., Espinosa, L.L., Cabrera, N.L. & Cerna, O.S. 2007. Predicting transition and adjustment to college: Biomedical and behavioral science aspirants' and minority students' first year of College. *Research in Higher Education*, 48(7):841-887.
- Hussey, T., & Smith, P. 2010. Transitions in higher education. *Innovations in Education and Teaching International*, (1):155-164.
- Huxham, M. 2006. Extended induction tutorials for at-risk students. In Cook, A., Rushton, B.S. & Macintosh, K.A. (Eds.). *Supporting students: Tutorial support*, 37-50. Coleraine: University of Ulster.
- Ibrahim, M.A. 2006. Student Attrition and Retention in Distance Learning in the Kingdom of Saudi Arabia, Maastricht School of Management, Netherlands.
- International Labour Office (ILO). 2000. Lifelong learning in the Twenty-First Century: The Changing roles of Educational Personnel. Report for discussion at the joint meeting on Lifelong Learning in the Twenty-first Century: Geneva.
- Ishitani, T. & Snider, K. 2006. Longitudinal effects of college preparation programs on college retention. *IR Applications: Using advanced tools, Techniques and Methodologies*, 9(1):1-10.
- Ishitani, T. 2003. A longitudinal approach to assessing attrition behaviour among first-generation students: Time-varying effects of pre-college characteristics. *Research in Higher Education*, 44(4): 433-449.

- Ismail, N. 2009. Mediating effect of information satisfaction on College choice. Paper presented in Oxford Business & Economics Conference Program. United Kingdom.
- Issa, A.O. & Nwalo, K.I. 2008. Factors affecting the career choice of undergraduates in Nigerian Library and Information Science schools. *African Journal of Library, Archives and Information Science*, 18(1):23-32.
- Jacobs, S.R., & Dodd, D. K. 2003. Student burnout as a function of personality, social support, and workload. *Journal of College Student Development*, 44(3):291-303.
- James, A., Slater, T., & Buckman, A. 2012. *Action research for business, non-profit and public administration: A tool for complex times*. Los Angeles, CA: SAGE.
- James, R. 2002. Students' changing expectations of higher education and the consequences of mismatches with reality. In OECD (Ed.). *Responding to student expectations*, organization for economic cooperation and development: Paris: OECD.
- Jamieson, I. & Naidoo, R, 2007. University positioning and changing patterns of doctoral study: The case of the University of Bath. *European Journal of Education*, 42(3):363-373.
- Jansen, J. D. 2009. *Knowledge in the blood: Confronting race and the apartheid past*. Stanford, CA: Stanford University Press.
- Jenkins, D. & Rodríguez, O. 2013. Access and success with less: Improving productivity in broad-access postsecondary institutions. *Community College Research Center at Teachers College, Columbia University*, 23(1):187.
- Jarboe, G.R. 1999. *The marketing research project manual*. (4thEd.). Ohio: South-Western College Publishing.
- Jehangir, R. R. 2009. Cultivating voice: First-generation students seek full academic citizenship in multicultural learning communities. *Innovative Higher Education*, 34(1):33-49.
- Jenkins, D. & Columbia University. 2006. *What Community College Management Practices are Effective in Promoting Student Success? A Study of High- and Low-Impact Institutions*. Community College Research Center, Columbia University, New York.
- Jenkins, D. & Rodríguez, O. 2013. Access and success with less: Improving productivity in broad-access. *Postsecondary Institutions*, 23(1):176-188.
- Jensen, U. 2011. *Factors Influencing Student Retention in Higher Education*. Summary of *Influential Factors in Degree Attainment and Persistence to Career or Further Education for At-Risk/High Educational Need Students*, by Pacific Policy Research Center. Honolulu, HI: Kamehameha Schools–Research & Evaluation Division.
- Johnson, B. & Christensen, L. 2004. *Educational research: Quantitative, qualitative, and mixed approaches*. (2ndEd.). USA: Pearson Education.
- Johnson, B. & Christensen, L. 2008. *Educational research: Quantitative, qualitative, and mixed approaches*. (3rd Ed.). Thousand Oaks, California: SAGE Publications.

Johnson, D. R., Soldner, M., Leonard, J. B., Alvarez, P., Inkelas, K. K., Rowan-Kenyon, H. & Longerbeam, S. 2007. Examining sense of belonging among first-year undergraduates from different racial/ethnic groups. *Journal of College Student Development*, 48(5):525-542.

Johnson, E.S. 2008. Ecological systems and complexity theory: Toward an alternative model of accountability in education. *Complicity: An International Journal of Complexity and Education*, 5(1):1-10.

Johnson, L.L. 2014. The skin I'm in: An ecological exploration of motivation for an African American male. *Journal of African American Males in Education*, 5(2):182-195

Johnston, T. C. 2010. Who and what influences choice of university? Student and university perceptions. *American Journal of Business Education*, 3(10):15-24.

Jones, B., Coetzee, G., Bailey, T. & Wickham, S. 2008. *Factors that Facilitate Success for Disadvantaged Higher Education Students: An Investigation into Approaches Used by REAP, NSFAS and Selected Higher Education Institutions*, Cape Town: Rural Education Access Programme.

Jones, B., Coetzee, G., Bailey, T., & Wickham, S. 2008. Rural education access programme. Factors that facilitate success for disadvantaged he students: An investigation into approaches used by REAP, NSFAS and selected Higher Education institutions. Irish Government Aid: Research & Academic Development (RAD).

Jones, M. 2002. The effectiveness of marketing communication strategies employed by Universities and Technikons in the Cape Peninsula with specific reference to career exhibitions and open days in attracting first year students. Unpublished Masters Thesis, University of Cape Town, Cape Town.

Jones, R. & Thomas, L. 2005. The 2003 UK Government Higher Education White Paper: A critical assessment of its implications for the access and widening participation agenda, *Journal of Educational Policy*, 20(5):615-630.

Jones, R. 2008. *Student retention and success: A synthesis of research*. York: Higher Education Academy. Available from: <http://www.heacademy.ac.uk/resources/detail/ourwork/>.

Jones, R. 2008. Widening Participation - Student retention and success. Research Synthesis for the Higher Education Academy. Retrieved on 2008 from <http://www.heacademy.ac.uk/observatory/themes>.

Jones-White, D.R., Radcliffe, P.M., Huesman, R.L. & Kellogg, J.P. 2009. *Redefining student success: Applying different multinomial regression techniques for the study of student graduation across institutions of Higher Education*. LLC: Springer Science and Business Media.

Joppe, M. 2001. *The Research Process*. Accessed in February 2017, from <http://www.ryerson.ca/~mjoppe/rp.htm>.

Joseph, M. & Joseph, B. 2000. Indonesian students' perceptions of choice criteria in the selection of a tertiary institution: Strategic implications. *International Journal of Educational Management*, 4(1):40-44.

Kadar, R. S. 2001. A counselling liaison model of academic advising. *Journal of College Counselling*, 4(2):174-78.

- Karp, M. M., Hughes, K. L. & O'Gara, L. 2010. An exploration of Tinto's integration framework for community college students. *Journal of College Student Retention: Research, Theory and Practice*, 12(1):69-86.
- Keels, C. L. 2004. Keeping students afloat: Noel-Levitz awards recognize retention programs that generate results. *Black Issues in Higher Education*, 21(18):32.
- Keling, S. B. A. 2006. Institutional factors attracting students to Malaysian institutions of higher learning. *International Review of Business Research Papers*, 2(1):46-64.
- Keling, S. B. A., Krishnan, A., & Nurtjahja, O. 2007. Evaluative criteria for selection of private Universities and Colleges in Malaysia. *Journal of International Management Studies*, 2(1):1-11.
- Kelley, C. 2011. Reviewing literature and formulating problems. In: Conrad, C.F. & Serlin, R.C. (Eds.). *The SAGE handbook for research in education*. (2ndEd.). 83-91. Thousand Oaks, California: SAGE Publications.
- Kelpe Kern, C. W. 2000. College choice influence: Urban high school students respond. *Community College Journal of Research and Practice*, 1(24):487-494.
- Kemper, E.A., Stringfield, S., & Teddlie, C. 2003. Mixed methods sampling strategies in social science research. In Tashakori, A. & Teddlie, C. (Eds.). *Handbook of mixed methods in social and behavioural research*. Thousand Oaks: SAGE.
- Kennedy, P. W., Sheckley, B. G., & Kehrhan, M. T. 2000. *The dynamic nature of student persistence: Influence of interactions between student attachment, academic adaptation, and social adaptation*. Paper presented at the annual meeting of the association for institutional research, Cincinnati, OH.
- Kerka, S. 2007. (Ed.). *Study skills: What works - evidence-based strategies for youth practitioners?* Columbus, OH: Learning Work Connection, Ohio State University.
- Kezar, A. & Kinzie, J. 2006. Examining the ways institutions create student engagement: The role of mission. *Journal of College Student Development*, 47(2):149-172.
- Kim, E., Newton, F.B., Downey, R. & Benton, S. 2010. Personal factors impacting college student success: Constructing College Learning Effectiveness Inventory (CLEI). *College Student Journal*, 44(1):112-125.
- Kimbark, K., Peters, M. L., & Richardson, T. 2017. Effectiveness of the student success course on persistence, retention, academic achievement, and student engagement. *Community College Journal of Research and Practice*, 41(2):124-138.
- King, C. 2008. Factors related to the persistence of first year college students at four-year Colleges and Universities. A paradigm Shift. American Council on Education: Washington, DC.
- King, J.E. 2002. Crucial choices: How students' financial decisions affect their academic success. American Council on Education: Washington, DC.

- Kinzie, J., Palmer, M., Hayek, J. C., Hossler, D., Jacob, S. A., & Cummings, H. 2004. *Fifty Years of College Choice: Social, Political and Institutional Influences on the Decision-Making Process*. Indianapolis: Lumina Foundation for Education.
- Kirk, K. 2008. Diversity and achievement: Developing the learning of non-traditional Higher Education Students. In Crosling, G., Thomas, T. & Heagney, M. (Eds.). *Improving student retention in Higher Education: The role of teaching and learning*, 147-151. London and New York: Routledge.
- Kirp, D. 2003. *Shakespeare, Einstein and the bottom line*. Cambridge: Harvard University Press.
- Kirsch, I., Braun, H., Yamamoto, K., & Sum, A. 2007. *America's perfect storm: Three forces changing our nation's future*. Princeton: Educational Testing Services.
- Kiser, A.I.T. & Price, L. 2008. The persistence of College students from their freshman to sophomore year. *Journal of College Student Retention: Research, Theory & Practice*, (9):421-436,
- Kiyama, J. M. 2010. College aspirations and limitations: The role of educational ideologies and funds of knowledge in Mexican American families. *American Educational Research Journal*, 1(47):330-356.
- Kline, T.J.B. 2005. *Psychological test: A practical approach to design and evaluation*. Thousand Oaks, California: SAGE.
- Kobrin, J. L., Patterson, B. F., Shaw, E. J., Mattern, K. D., & Barbuti, S.M. 2008. Validity of the SAT for predicting first-year College grade point average. College Board Research Report. New York: The College Board.
- Kogan, L. R. & McConnell, S. L. 2001. Gaining acceptance into veterinary school: A review of medical and veterinary admissions policies. *Journal of Veterinary Medical Education*, 28(3), 101-110.
- Kombo, D. K. & Tromp, D. L. A. 2006. *Proposal and thesis writing: An introduction*, Nairobi: Pauline Publications Africa.
- Košir, K. & Pecjak, S. 2005. The role of interpersonal relationships in students' learning engagement and achievement. Paper presented to the *European Association for Research on Learning and Instruction 11th Biennial Conference*, University of Cyprus, Nicosia, Cyprus.
- Kraak, A. 2012. Differentiation in the post-school environment. Connecting capabilities individuals and institutions. Labour market intelligence partnership: HRSC.
- Kramer, G.L., & Associates. (Eds.). 2007. *Fostering student success in the campus community*. Francisco, CA: Jossey-Bass.
- Krathwohl, D.R. 2009. *Methods of educational research and social science research: The logic of methods*. (3rdEd.). Waveland Press, Inc.
- Krause, K. & Coates, H. 2008. Students' engagement in first-year University. *Assessment and Evaluation in Higher Education*, 33(5):493-505.

- Krause, K., Hartely, R., James, R. & McInnis, C. 2005. *The first year experience in Australian Universities. Findings from a decade of national studies finance report*. Canberra: Department of Education Science and Training.
- Kuh, G.D. 2001. Assessing what really matters to student learning: Inside the National Survey of student Engagement. *Change*, 33(3):10-66. San Francisco, CA: Jossey-Bass.
- Kuh, G. D. 2005. Student engagement in the first year of College. In *Upcraft, M.L., Gardner, J.N. & Barefoot, B.O. Challenging and supporting the first-year student: A handbook for improving the first year of College*, San Francisco: Jossey-Bass.
- Kuh, G. D. 2006. Built to engage: Liberal Arts Colleges and Effective Educational Practice. In *Liberal Arts Colleges in American Higher Education (ACLS Occasional Paper)*, edited by F. Oakely, 122- 150. New York: American Council of Learned Societies.
- Kuh, G.D. 2009. Understanding campus environments. In McClellan, G. & Stringer, J. and Associates. (Eds.), 61-73. *The Handbook of Student Affairs Administration*. (3rdEd.). San Francisco, CA: Jossey-Bass.
- Kuh, G.D. 2009. What student affairs professionals need to know about student engagement. *Journal of College Student Development*, 50(6):683-706.
- Kuh, G. D., Gonyea, R. M., & Williams, J. M. 2005. What students expect from college and what they get. In Miller, T., Bender, B., Schuh, J. and Associates. (Eds.). *Promoting reasonable expectations: Aligning student and institutional views of the college experience*. San Francisco: Jossey-Bass.
- Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. 2006. *What matters to student success: A review of the literature?* Retrieved from <http://nces.ed.gov/npec/papers.asp>.
- Kuh, G. D., Kinzie, J., Schuh, J. H., Whitt, E. J., & Associates. 2005. *Student success in college: Creating conditions that matter*. San Francisco: Jossey-Bass.
- Kuh, G., Kinzie, J., Cruce, T., Shoup, R., & Gonyea, R. 2007. *Connecting the dots: Multifaceted analyses of the relationships between student engagement results from the NSSE, and institutional practices and conditions that foster student success*. Indianapolis, IN: Lumina Foundation for Education.
- Kurantowicz, E. & Nizinska, A. 2013. How students stay on the course: Retention practices in Higher Education. *University of Lower Silesia, Poland studies in the Education of adults*, 45(2): 130-137.
- Kwai, C.K. 2009. Model of international student persistence: Factors influencing retention of international undergraduate students at two public state-wide four-year university systems. University of Minnesota.
- Lai, K., Nankervis, S., Story, M., Hodgson, W., Lewenberg, M., & MacMahon Ball, M. 2008. Providing transparency and credibility: The selection of international students for Australian universities. An examination of the relationship between scores in the International Student Admissions Test (ISAT), final year academic programs and an Australian university's foundation program. *Higher Education Research & Development*, 27(4):331-344.

- Laing, C. & Robinson, A. 2003. The withdrawal of non-traditional students: Developing an exploratory model. *Journal of Further and Higher Education*, 27(2):175-185.
- Laiqa, R., Shah, R.U. & Khan, S.M. 2011. Impact of quality space on students' academic achievement. *International Journal of Academic Research*, 3(2):706-711.
- Lamb, C.W., Hair, J.F., McDaniel, C., Boshoff, C. & Terblanche, N.S. 2004. *Marketing management*. (2ndEd.). Cape Town: Oxford University Press.
- Lancaster, G., Withey, F., & Ashford, R. 2001. *Marketing fundamentals*. Boston: Butterworth.
- Lang, M. 1992. Barriers to blacks' educational achievement in Higher Education: A statistical and conceptual review. *Journal of Black Studies*, 22(4):510-522.
- Lange, L. 2006. Symbolic policy and performativity: South African Higher Education between the devil and the deep blue Sea. In *Ten Years of Higher Education under Democracy*, Kagisano Issue Number 4. Council on Higher Education, Pretoria.
- Lawrence, J. 2005. Re-conceptualising attrition and retention: Integrating theoretical, research and student perspectives. *Studies in Learning, Evaluation innovation and Development*, 2(3):16-33.
- Lawson, B.R. 2001. *The language of space*. Boston: The Architectural Press.
- Layer, G., Srivastava, A. & Stuart, M. 2002. *Achieving student success in Higher Education*. Bradford.
- Lea, S. 2000. *Improving retention and achievement at Level 2*. Unpublished report, South Essex Lifelong Learning Partnership.
- Lea, S., Stephenson, D., & Troy, J. 2003. Higher Education students' attitudes to student-centred learning: Beyond educational bulimia. *Studies in Higher Education*, 28(3):321-334.
- Leathwood, C. & O'Connell, P. 2003. It's a struggle: The construction of the 'new student' in Higher Education. *Journal of Education Policy*, 18(6):597-615.
- LeCompte, M.D. & Preissle, J. 1993. *Ethnography and qualitative design in educational research*, London: Academic Press, Inc.
- Lee, R. & Robbins, S. 2000. Understanding social connectedness in College women and men. *Journal of Counselling and Development*, 78(4):484-491.
- Leedy, P.D. & Ormrod J.E. 2005. *Practical research: Planning and design*. (8thEd.). New Jersey: Pearson Education.
- Lehr, C. A. 2004. *Increasing school completion: Learning from research-based practices that work*. National Center on Secondary Education and Transition. University of Minnesota.
- Leibowitz, B. 2005. Learning in an additional language in a multilingual society: A South African case study on university-level writing. *TESOL Quarterly*, 39(4):661-681.

- Leibowitz, B., van der Merwe, A. & van Schalkwyk, S. 2012. *Focus on first-year success: Perspectives emerging from South Africa and Beyond*, Stellenbosch: SUN Media.
- Lerner, J. B. & Brand, B. 2006. *The college ladder: Linking secondary and postsecondary education for success for all students*. Washington, DC: American Youth Policy Forum. Retrieved January, 2015, from <http://www.aypf.org/publications/>.
- Letseka, M. 2008. The challenges of university teaching and learning in the era of managerialism. *Africa Education Review*, 5(2):305-323.
- Letseka, M. & Breier, M. 2008. Student poverty in higher education: The impact of Higher Education dropout on poverty. *Education and poverty reduction strategies: issues of policy coherence: colloquium proceedings*. Cape Town, HSRC Press.
- Letseka, M., Cosser, C., Breier, M. & Visser, M. 2009. *Student retention and graduate destination: Higher education and labour market access and success*, Cape Town: HSRC Press.
- Levin, J. & Fox, J.A. 2006. *Elementary statistics in social research*. (10thEd.). San Francisco: Pearson.
- Levy, S. & Campbell, H. 2007. Promoting motivation and engagement among academically at risk students. *Widening Participation and Lifelong Learning*, 9(3):17-25.
- Lewin, T. & Mawoyo, M. 2014. *Student Access and Success: Issues and Interventions in South African Universities*. The South African Institute for Advancement. Inyathelo.
- Liamputtong, P. 2013. *Qualitative research methods*. (4thEd.). Melbourne: Oxford University Press.
- Lichtenstein, M. 2002. The role of financial aid in Hispanic first-time freshman persistence. Paper presented at the Annual Forum for the Association for Institutional Research, Canada: Toronto, Ontario.
- Little, B. 2005. *Survey of Higher Education students' attitude to debt and term-time working and their impact on attainment*. London: University UK.
- Locks, A. M., Hurtado, S., Bowman, N. A. & Oseguera, L. 2008. Extending notions of campus climate and diversity to students' transition to college. *The Review of Higher Education*, 31(3):257-285.
- Lombard, C., van der Merwe, L., Kele, T., & Mouton, S. 2012. *Elementary statistics for business economics*. Revised edition. Cape Town: Pearson.
- Long, M. & Hayden, M. 2001. *Paying their Way: A Survey of Australian Undergraduate University Student Finances*. Canberra, Australian Vice-Chancellors' Committee.
- Long, M., Ferrier, F. & Heagney, M. 2006. *Stay, play or give it away? Students continuing, changing or leaving university study in their first year* Clayton: Monash University-ACER.
- Long, M., Ferrier, F. & Heagney, M. 2006. *Stay, play or give it away? Students continuing, changing or leaving university study in first year*. Canberra: Department of Education, Science and Training.

- Lovett, C. M. 2005. The perils of pursuing prestige. *The Chronicle of Higher Education Review*, 51(20):20.
- Lubbe, C. 2003. *Doctoral Proposal*: PhD Educational Psychology, University of Pretoria.
- Lundberg, C. A. & Schreiner, L. A. 2004. Quality and frequency of faculty-student interaction as predictors of learning: An analysis by student race/ethnicity. *Journal of College Student Development*, 45(5):549-565.
- Lune, H. & Berg, B. L. 2017. *Qualitative research methods for the social sciences*, (9th ed.). Harlow, England: Pearson Education.
- Mabaso, B., Singh, S., Singh-Pillay, A., & Mudaly, R. 2015. *Scary living and learning spaces: Female students' perspectives*. Durban: University of Kwa-Zulu Natal.
- Mabokela, R.O. & King, K. 2001. *Apartheid no more: Case studies of Southern African universities in the process of transformation*. Westport: Bergin and Garvey.
- Mabokela, R.O. 2001. Hear our voices! Women and the transformation of South African Higher Education. *The Journal of Negro Education*, 70(3):204.
- McMillian, J.H., Schumacher, S. 2001. *Researchers in Education. A conceptual introduction* (5thEd.) New York: Longman.
- MacMillan, J.H. & Schumacher, S. 2006. *Research in education: Evidence based inquiry*. (6thEd.). New Jersey: Prentice Hall.
- MacMillan, J.H. & Schumacher, S. 2010. *Research in Education: Evidence-Based Inquiry (with my education lab)*. New Jersey: Prentice Hall.
- Maestas, R., Vaquera, G. S. & Zehr, L. M. 2007. Factors impacting sense of belonging at a Hispanic-serving institution. *Journal of Hispanic Higher Education*, 6(3):237-256.
- Magolda, P. M. 2000. The campus tour: Ritual and community in higher education. *Anthropology & Education Quarterly*, 31(1):24-46.
- Maimane, J.R. 2016. The impact of Student Support Services on students enrolled for the National Certificate Vocational (NCV) in Motheo District, Free State, South Africa. *Universal Journal of Educational Research*, 4(7):1680-1686.
- Makuakane-Drechsel, T. & Hagedorn, L.S. 2000. Correlates of retention among Asian Pacific Americans in community colleges: The case for Hawaiian students. *Community College Journal of Research and Practice*, (24):639-655.
- Malcolm, J. & Zukas, M. 2001. Bridging pedagogic gaps: Conceptual discontinuities in Higher Education. *Teaching in Higher Education*, 6(1):33-42.
- Malefo, V. 2000. Psycho-social factors and academic performance among African women students at a predominantly white university in South Africa. *South African Journal of Psychology*, 30(4):40-45.

Management Services Board, 2003. *Report on the Ministry of Education (BESSIP) Sponsored Human Resource Development Programme for Senior Management (HRDPSM): Module 3 – Managing staff for high Performance*, Lusaka: Management Services Board.

Mangold, W. D., Bean, L. G., Adams, D. J., Schwab, W. A., & Lynch, S. M. 2003. Who goes who stays: An assessment of the effect of a freshman mentoring and unit registration program on college persistence. *Journal of College Student Retention: Research, Theory & Practice*, 4(2):95-122.

Mann, H. B., & Whitney, D. R. 1947. On a test of whether one of 2 random variables is stochastically larger than the other. *Annals of Mathematical Statistics*, (18):50-60.

Manning, K. 2000. *Rituals, ceremonies, and cultural meaning in higher education*. Santa Barbara, CA: Praeger.

Maree, K. 2007. Sample of a research proposal: Exploring the use of television for guidance to expectant fathers. In Maree, K. (Ed.). *First steps in research*, 251-284. Pretoria: Van Schaik.

Maringe, F. 2006. University and course choice: Implications for positioning, recruitment and Marketing. *The International Journal of Educational Management*, 20(6):466-479.

Marnewick, C. 2012. The mystery of student selection: Are there any selection criteria? 38(2):123-137. <http://dx.doi.org/>.

Marsh, H. W. & O'Mara, A. 2008. Reciprocal effects between academic self-concept, self-esteem, achievement, and attainment over seven adolescent years: Unidimensional and multidimensional perspectives of self-concept. *Personality and Social Psychology Bulletin*, (34):542-552.

Martin, A. & Dowson, M. 2009. Interpersonal relationships, motivation, engagement, and achievement: Yields for theory, current issues, and practice. *Review of Educational Research*, 79(1):327-365.

Martinez, M. & Klopott, S. 2003. Improving college access for minority, low-income, and first-generation students. Washington, DC: Pathways to College Network Clearinghouse.

Martinez, P. 2001. *College improvement: The voice of teachers and management*. London: FEDA.

Martinez, P. 2001. Improving student retention and achievement: What do we know and what do we need to find out? Learning and Skills Development Agency. Tinworth Street, London SE11 5EF.

Martinez, P. 2000. *Raising achievement: A guide to successful strategies*. London: FEDA.

Martins, J.H., Loubser, M. & Van Wyk, H.J. 1996. *Marketing research: A South African approach*. Pretoria: UNISA Press.

Mashige, K.P. & Oduntan, O.A. 2011. Factors influencing South African optometry students in choosing their career and institution of learning. *The South African Optometrist*, 70(1):21-28.

Mason, J. 2002. *Qualitative researching*. (2nd Ed.). London: Sage Publications.

Matthews, B. & Ross, L. 2010. *Research methods: A practical guide for the Social Sciences*. Harlow: Longman.

- Mattimore, P. 2008. University of California should keep requiring SAT Subject Tests of applicants. *Chronicle of Higher Education*, 54(47):40.
- Mawoyo, M. & Hoadley, U. 2009. Social and academic integration of young women at the University of Cape Town. In *Gender, Identity and Institutional Culture. Women students' constructions of success in three South African universities*, 61-74. Department of Education: Republic of South Africa HSRC Press.
- Maxwell, J.A. 2013. *Qualitative research design. An interactive approach*. (3rdEd.). London: SAGE.
- May, T. 2008. *Social research: Issues, methods and process*. (3rdEd.). McGraw-Hill House: Open University Press.
- May, T. 2011. *Social research: Issues, methods and process*. Open University Press: Maidenhead.
- McClenney, K. M. 2004. Redefining quality in community colleges: Focusing on good educational practice. *Change: The Magazine of Higher Learning*, 36(6):16-21.
- McClenney, K. M. 2007. Research update: The community college survey of student engagement. *Community, College Review*, 35(2):137-146.
- McClenney, K. M. & Marti, C. N. 2006a. *Exploring relationships between student engagement and student outcomes in community colleges: Report on validation research*. Austin, TX: Community College Survey of Student Engagement.
- McClenney, K. M., Marti, C. N. & Adkins, C. 2006b. *Student engagement and student outcomes: Key findings from CCSSE validation research*.
<http://www.ccsse.org/center/resources/publications.cfm>.
- McCubbin, I. 2003. *An examination of criticisms made of Tinto's 1975 student integration model of attrition*. Retrieved on May 2015 from <http://www.psy.gla.ac.uk/~steve/localed/icubb>.
- McDaniel, C. & Gates, R. 2001. *Marketing research essentials*, (3rdEd.). New Jersey: Prentice Hall.
- McDermott, A. 2008. Surviving without the SAT. *Chronicle of Higher Education*, 55(7):41.
- McDonough, P. M. 2004. *The school-to-college transition: Colleges and prospects*. Washington, DC: American Council on Education, Center for Policy Analysis.
- McGinity, D.A. 1989. *A path of analysis of effects of multiple progress of student persistence*. Ann Arbor, MI: University of Michigan.
- McInnis, C. & James, R. 2004. Access and retention in Australian Higher Education. In Yorke, M. & Longden, B. *Retention and student success in Higher Education*. Buckingham: Open University Press.
- McMillan, J.H. & Schumacher, S. 2001. *Research in education: A conceptual introduction*. (5thEd.). New York: Longman.
- McMillan, J.H. & Schumacher, S. 2006. *Research in education: Evidence based-based inquiry*. (6th Ed). New York: Pearson Education.

- McMillan, J.H. & Schumacher, S. 2010. *Research in education: Evidence-based inquiry*. (7thEd.). New Jersey: Pearson Education, Inc.
- McMillan, J.H. 2012. *Educational research: Fundamentals for the consumer*. (6thEd.). New York: Pearson Education.
- Meeuwisse, M., Severiens, S. E. & Born, M. P. 2010. Reasons for withdrawal from Higher Vocational Education: A comparison of ethnic minority and majority non-completers. *Studies in Higher Education*, 35(1):93-111.
- Mellet, S.M. 2000. *Die motivering van wiskundeleerlinge*. D.Ed. thesis, University of South Africa, Pretoria.
- Merriam, S.B. 2009. *Qualitative research: A guide to design and implementation*. San Francisco: Jossey-Bass.
- Mertens, D.M. 2010. *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods*. (3rdEd.). Los Angeles: SAGE.
- Milenovic, Z.M. 2011. Application of Mann-Whitney u test in research of professional training of primary school teachers. *Application of Mann-Whitney. Metodički obzori* 11, 6(2011):1-77.
- Milem, J. F., Chang, M. J. & Antonio, A. L. 2005. Making diversity work on campus: A research-based perspective. *Making excellence inclusive*, 1-38. Association of American Colleges and Universities. Retrieved on November 2014 from www.aacu.org.
- Miles, M.B., Huberman, A.M., & Saldana, J. 2014. *Qualitative Data Analysis. A methods sourcebook*. (3rd Ed.). Los Angeles: Sage.
- Miller, M. T., Pope, M. L. & Steinmann, T. D. 2005. A profile of contemporary community College student involvement, technology use, and reliance on selected college life skills. *College Student Journal*, 39(3):8.
- Miller, T. E. 2005. Student persistence and degree attainment. In Miller, T., Bender, B., Schuh, J., & Associates (Eds.). *Promoting reasonable expectations: Aligning student and institutional views of the college experience*, 122-139. San Francisco: Jossey-Bass.
- Mills, M. 2004. Do and should financial aid packages affect students' college choices? *Journal of College Admission*, Spring, 1(183):28-29.
- Milne, A.M., Meyers, D.E., Rosenthal, A.S. & Ginsburg, A. 1986. Single parents, working mothers, and the educational achievement of school children. *American Sociological Association*, 59(3):125-139.
- Ming, J.S.K. 2010. Institutional factors influencing students' College choice decision in Malaysia: A conceptual framework. Department of Marketing and Management. School of Business Curtin University, Sarawak Malaysia. *International Journal of Business and Social Science*, 1(3):3-53.
- Ministry of Higher Education and Training. 2013. Budget speech of the Minister of Higher Education and Training. Pretoria.

- Mlachila, M. & Moeletsi, T. 2019. *Struggling to make the grade: A review of the causes and consequences of the weak outcomes of South Africa's education system*. Washington: IMF.
- Mlambo, V. 2011. An analysis of some factors affecting student academic performance in an introductory biochemistry course at the University of West Indies. *Caribbean Teaching Scholar*, 1(1):79-92.
- Mohammad, B.M. 2015. The impact of campus life on student retention. *International Journal of Arts and Commerce*, 4(3):88-102.
- Montgomery, T. 2008. Space matters: Experiences of managing static formal learning spaces. *Active Learning in Higher Education and Training*, 9(2):122-138.
- Moore, C., Shulock, N., Ceja, M., & Lang, D. 2007. *Beyond the open door: Increasing student success in the California Community Colleges*. Sacramento, CA: Institute for Higher Education Leadership and Policy, California State University.
- Moore, G., Slate, J. R., Edmonson, S., Combs, J., Bustamante, R., & Onwuegbuzie, A. J. 2010. High school students and their lack of preparedness for college: A statewide study. *Education and Urban Society*, (42):817-838.
- Moorhead, G. & Griffin, R. 2008. *Managing organizational behaviour*. (10thEd.). Australia: South-Western CENGAGE Learning.
- Moos, A. 2009. First-year students' perceptions of the influence of social integration on academic performance. A mini thesis submitted in partial fulfilment of the requirements for the degree of Master of Arts in Psychology, in the Department of Psychology, University of the Western Cape, Bellville.
- Morrison, M. C. & Schmit, S. 2010. *Predicting success in a gateway Mathematics course*. Retrieved from <http://www.eric.ed.gov/ERICWebPortal/detail?accno=ED511033>.
- Morrow, J. & Ackermann, M. E. 2012. Intention to persist and retention of first-year students: The importance of motivation and sense of belonging. *College Student Journal*, 46(3):483-491.
- Mortenson, T. G. 2005. Measurements of persistence. In Seidman, A. (Ed.). *College student retention*, 31-60. Westport: Praeger Publishers.
- Mortenson, T. G. 2012. Measurements of persistence. In Seidman, A. (2ndEd.). *College student retention: Formula for student success*. Lanham, MD: Rowman & Littlefield.
- Moss, B. G. & Yeaton, W. H. 2006. Shaping policies related to developmental education: An evaluation using the regression-discontinuity design. *Educational Evaluation and Policy Analysis*, 28(3):215-229.
- Mouton, J. 2001. *How to succeed in your master's and doctoral studies*. Pretoria: Van Schaik.
- Moxley, D., Najor-Durack, A. & Dumbrigue, C. 2001. *Keeping students in higher education: Successful practices and strategies for retention*. London: Kogan Page Limited.

- Mudhovozi, P. & Chireshe, C. 2012. Socio-demographic factors influencing career decision-making among undergraduate psychology students in South Africa. *Journal of Social Sciences*, 31(2):167-176.
- Mulkey, L.M., Crain, R.L., & Harrington, A. J. 1992. One parent households and achievement: Economic and behavioural explanations of a small effect. *Sociology of Education*, 65:48-65.
- Muwaniki, C., & Wedekind, V. 2018. Professional Development of Vocational Teachers in Zimbabwe. In *Handbook of Vocational Education and Training*, edited by S. McGrath, M. Mulder, J. Papier, and R. Suart, 1651–1668. Basel: Springer.
- Nachar, N. 2008. The Mann-Whitney U: A test for assessing whether two independent samples come from the same distribution. *Tutorials in quantitative methods for psychology*, 4(1):13-20.
- Nankervis, B. 2011. Gender inequities in College admission due to the differential validity of the SAT. *Journal of College Admission*, (213):24-30.
- National Audit Office (NAO). 2001. Improving student performance: How English Further Education Colleges can improve student retention and achievement. Report by the Controller and Auditor General. London: The Stationary Office.
- National Audit Office (NAO). 2007. Staying the course: the retention of students in Higher Education. Report by the Comptroller and Auditor General. London: The Stationary Office. Accessed from <http://www.nao.org.uk/pn/06-07/0607616.htm>.
- National Center for Education Statistics. 2005a. *College persistence on the rise: Changes in 5-year degree completion and postsecondary persistence rates between 1994 and 2000*. National Center for Education Statistics, Statistical Analysis Report. Washington, DC, U.S. Department of Education, Office of Educational Research and Improvement.
- National Center for Education Statistics. 2005b. *First generation college students in postsecondary education*. National Center for Education Statistics, Statistical Analysis Report. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.
- National Commission on Higher Education (NCHE). 1996. *An Overview of a New Policy Framework for Higher Education Transformation*. Pretoria.
- National Planning Commission (NPC). 2011. *Diagnostic Overview*. Pretoria: The Presidency, Republic of South Africa.
- National Planning Commission (NPC). 2018. *A crossroads: Proposals to accelerate towards NDP's Vision 2030* [8 July 2018]. Pretoria.
- National Student Financial Aid Scheme. 2012. *Annual Report*. Cape Town.
- Neill, J. 2007. Qualitative versus quantitative research: Key points in a classic debate. Accessed on February 2017 from <http://wilderdom.com/research/QualitativeVersusQuantitativeResearch.html>
- Needham, S. 2018. Student Support Structures for Transitioning from Vocational to University Education. In *Handbook of Vocational Education and Training*, edited by S. McGrath, M. Mulder, J. Papier, and R. Suart, 1583–1594. Basel: Springer.

- Nes L.S., Evans, D.R. & Segerstrom, S.C. 2009. Optimism and College retention: Mediation by motivations, performance, and adjustment. *Journal of Applied Psychology*, 39(8):1887-1912.
- Neuman, W.L. 2011. *Social research methods: Qualitative and quantitative approaches*. (7thEd.). Boston: Allyn & Bacon.
- Neuman, W.L. 2007. *Basics of social research: Qualitative and quantitative approaches*. (2ndEd.). New York: Pearson International Edition.
- Newby, P. 2010. *Research methods for education*. London: Longman.
- Newman-Ford, L., Lloyd, S. & Thomas, S. 2009. An investigation into the effects of gender, poor academic achievement, place of residence and attendance on first year undergraduate attainment. *Journal of Applied Research in Higher Education*, 1(1):13-18.
- Nicholls, J. & Sutton, A. 2001. Student retention and success: A brief description and key issues. An introductory report for the Tertiary Education Advisory Committee. New York: Wesley Longman.
- Nichols, S. N. & Berliner, D. C. 2006. *The inevitable corruption of indicators and educators through high-stakes testing*. D.C Washington, AZ: College of Education, Education Policy Studies Laboratory Report. Retrieved from <http://www.asu.edu>.
- Nichols, S. N. & Berliner, D. C. 2008. Why has high-stakes testing so easily slipped into contemporary life? Washington, DC: *Phi Delta Kappan*, 89(9):672-676.
- Noddings, M. 2010. Differentiate, don't standardize. *Education Week*, 29(17):29-31. Retrieved from <http://www.edweek.org/ew/articles/2010/01/14/17noddingscomm>.
- Noel, L. & Levitz, R. 2008. *Noel-Levitz retention codifications student success, retention, and graduation: Definitions, theories, practices, patterns, and trends*. Iowa City: USA Group Noel-Levitz, Inc.
- Noel, L. 1985. Increasing student retention: New challenges and potential. In Noel, L. et al. (Eds.). *Increasing student retention*, 1-3. San Francisco: Jossey-Bass.
- Nonis, S. A. & Hudson, G. I. 2006. Academic performance of college students: Influence of time spent studying and working. *The Journal of Business Education*, 81(3):151-159.
- Nora, A., Barlow, E. & Crisp, G. 2005. Student persistence and degree attainment beyond the first year in College. In Seidman, A. (Ed.). *College student retention: Formula for student success*. Westport, CT: Praeger.
- Nora, A. & Crisp, G. 2012. Student persistence and degree attainment beyond the first year in college: Existing knowledge and directions for future research. In Seidman, A. (2ndEd.). *College student retention: Formula for student success*, 229-250. Lanham, MD: Rowman & Littlefield.
- Ntshoe, I.M. 2004. The politics and economics of post-apartheid Higher Education transformation. *Comparative Education Review*, 48(2):202.
- Núñez, A. M. 2009. A critical paradox? Predictors of Latino students' sense of belonging in College. *Journal of Diversity in Higher Education*, 2(1):46.

- Nunnally, J. 1978. *Psychometric theory*. New York: McGraw-Hill.
- Nzimande, E.B. 2012. Ministerial media briefing on the Further Education and Training (TVET) Colleges turnaround strategy. Imbizo media centre in parliament. Cape Town. South Africa.
- O'Brien, B. S. & Renner, A. 2002. *Online student retention: Can it be done?* World Conference on Educational Multimedia, Hypermedia and Telecommunications, 1479-1483.
- O'Gara, L., Karp, M. M., & Hughes, K. L. 2009. Student success courses in the community college. *Community College Review*, 36(3):195-218.
- Ogude, N., Kilfoil, W. & du Plessis, G. 2012. An institutional model for improving student retention and success at the University of Pretoria. *The International Journal of the First Year in Higher Education*, 3(1):21-34.
- Olamide, S.O. & Olawaiye, S.O. 2013. The factors determining the choice of career among secondary school students. *The International Journal of Engineering and Science*, 2(6):33-44.
- lawale, F. 2014. The determinants of the career choice of international students in South Africa. *Mediterranean Journal of Social Sciences MC SER Publishing, Rome-Italy*, 5(23):650- 668.
- Onwuegbuzie, A.J. & Johnson, R.B. 2004. Mixed research. In Johnson, R.B. & Christelen, R.B. (Eds.). *Educational research: Quantitative, qualitative and mixed approaches*. (2ndEd.). Needham Height M.A: Allyn and Bacon.
- Onwuegbuzie, A.J. & Johnson, R.B. 2005. Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7):14-26. Accessed in February 2017 from <http://www.jstor.org/stable>.
- Onwuegbuzie, A.J. & Leech, N.L. 2006. Linking research questions to mixed methods data analysis procedure. *The Qualitative Report*, (11):474-498.
- Onwuegbuzie, A.J. & Teddlie, C. 2003. A framework for analyzing data in mixed methods research. In Tashakkori, A. & Teddlie, C. (Eds.). *Handbook of mixed methods in social and behavioural research*. Thousand Oaks, C.A: SAGE.
- Opperman, A.N. 2009. *Questionnaire design, interviewing and attitude measurement*. London: WCIE 7AE.
- Orbe, M.P. 2004. Negotiating multiple identities within multiple frames: An analysis of first-generation College students. *Communication Education*, 53(2):131-149.
- Organizations for Economic Cooperation and Development (OECD). 2001a. *Economics and Finance of Lifelong Learning*. Paris: OECD.
- Organizations for Economic Cooperation and Development (OECD). 2010b. *Education at a Glance*. Paris: OECD.

Organizations for Economic Cooperation and Development (OECD). 2010c. *Learning for jobs: OECD policy review of vocational education and training*. Paris: OECD. Available at: <http://www.oecd.org/edu/learningforjobs>.

Organizations for Economic Cooperation and Development (OECD). 2014. *Reviews of Vocational Education and Training: Skills beyond school review of South African*. Paris: OECD.

Organizations for Economic Cooperation and Development (OECD). 2010d. *The high cost of low educational performance: The long-run economic impact of improving PISA outcomes*. Paris: OECD.

Organizations for Economic Cooperation and Development (OECD). 2010e. *Pathways to Success. How Knowledge and Skills at Age of 15 Shape Future Lives in Canada*. Paris: OECD.

Ornstein, S. 2013. Twenty-five impression management through office design. *Impression Management in the Organization*, 89-82. PUBLISHER & PLACE.

Osborne, M. 2003. Policy and practice in widening participation a six country comparative study of access as flexibility. *International Journal of Lifelong Education*, 22(1):43-58.

Ozkan, B.C., Davis, N., & Johnson, N. 2006. An innovative approach on holistic analysis of interview data: The case of Iowa State University's simultaneous renewal of teacher education. *The Turkish Online Journal of Educational Technology*, 5(2):10-13.

Pallant, J. 2011. *A step by step guide to data analysis using SPSS*. (4thEd.). Australia: Allen and Unwin.

Pandor, N. 2007. Statement by Minister of Department of Education, on the release of the 2007 senior certificate examination results on 28 December 2007 .<http://www.education.gpg.gov.za>.

Papier, J. 2017. Improving College-to-work Transitions through Enhanced Training for Employment. *Research in Post-Compulsory Education* 22 (1): 38–48. doi:10.1080/13596748.2016.1272084.

Papier, J., & McBride, T. 2018. Systematizing Student Support Services in TVET Colleges. In *Handbook of Vocational Education and Training*, edited by S. McGrath, M. Mulder, J. Papier, and R. Suart, 1595–1610. Basel: Springer.

Parker, M. & Flowers, L. A. 2003. The effects of racial identity on academic achievement and perceptions on campus connectedness on African American students at predominantly white institutions. *College Student Affairs Journal*, 22(2):180-193.

Parker, S., Naylor, P. & Warmington, P. 2005. Widening participation in higher education: What can we learn from the ideologies and practices of committed practitioners? *Journal of Access Policy and Practice*, 2(2):163-172.

Parker, J. D. A., Summerfeldt, L. J., Hogan, M. J. & Majeski, S. A. 2004. Emotional intelligence and academic success: Examining the transition from high school to university. *Personality and Individual Differences*, 36(1):163-172.

- Pascarella, E.T. & Terenzini, P.T. 2005. *How college affects students: Decade of research*, 2(A). San Francisco: John Wiley & Sons, Inc.
- Patton, L. D., Morelon, C., Whitehead, D. M., & Hossler, D. 2006. Campus-based retention initiatives: Does the emperor have clothes? In St. John, E.P. & Wilkerson, M. (Eds.). *Reframing persistence research to improve academic success: New directions for institutional research*. San Francisco: Jossey-Bass.
- Patton, M. Q. 2001. *Qualitative research & evaluation methods*. (3rdEd.). Saint Paul, MN: Sage Publications.
- Patton, M. Q. 2002. *Qualitative research and evaluation methods*. (4thEd.). Thousand Oaks. CA: Sage.
- Paulsen, M. B. & St. John, E. P. 2002. Social class and College costs: Examining the financial nexus between College choice and persistence. *Journal of Higher Education*, 73(2):189-236.
- Peat, J. 2001. *Health science research: A handbook of quantitative methods*. Sydney: Allen and Unwin.
- Perez, P. A., & McDonough, P. M. 2008. Understanding Latina and Latino college choice: A social capital and chain migration analysis. *Journal of Hispanic Higher Education*, (7): 249-265.
- Perkhounkova, Y., Noble, J. & McLaughlin, G. 2006. Factors related to persistence of freshmen: Freshmen transfers, and non-freshmen transfer students. *AIR Professional File*, 99(1):1-9.
- Perna, L. W. 2002. Precollege outreach programs: Characteristics of programs serving historically underrepresented groups of students. *Journal of College Student Development*, (43):64-83.
- Perna, L. W. 2005. The key to college access: Rigorous academic preparation. In Tierney, W.G., Corwin, Z.B & Colyar, J.E. (Eds.). *Preparing for college: Nine elements of effective outreach*. Albany: State University of New York Press.
- Perna, L. W. 2006. Studying college access and choice: A proposed conceptual model. In Smart, J.C. (Ed.) *Higher Education: Handbook of Theory and Research*, (XXI):99-157. New York, NY: Springer
- Perna, L. & Thomas, S. 2006. A framework for reducing the college success gap and promoting success for all. Commissioned report for the national symposium on postsecondary student success: Spearheading a dialog on student success. National Postsecondary Education Cooperative.
- Perna, L. W. & Titus, M. A. 2005. The relationship between parental involvement as social Capital and College enrolment: An examination of racial/ethnic group differences. *Journal of Higher Education*, 76(5):485-518.
- Perrie, G. & Bellamy, C. 2012. *Principles of methodology: Research design in social science*. Los Angeles: SAGE.
- Peter, J.P. & Olson, J.C. 2005. *Consumer behaviour and marketing strategy*. (7thEd.). New York: McGraw-Hill.

- Petersen, I., Louw, J. & Dumont, K. 2009. Adjustment to university and academic performance among disadvantaged students in South Africa. *Educational Psychology*, (29):99-115.
- Petersen, I., Louw, J., Dumont, K. & Malope, M. 2010. Adjustment to university and academic performance: Brief report of a follow-up study. *Journal of Educational Psychology*, (30):369-375.
- Peterson, I.H., Louw, J. & Dumont, K. 2009. Adjustment to university and academic performance among disadvantaged students in South Africa. *Educational Psychology*, 29(1):99-115.
- Pettitt, M. A. 2006. Using CCSSE data to analyse the impact of risk factors on student outcomes. *Journal of Applied Research in the Community College*, 14(1):59-64.
- Phillips, J.T. & Ward, C.V.L. 2009. Two-dimensional approach for assessing transformative campus/community service-learning partnerships. In Moely, B.E., Billig, S.H., & Holland, B.A. (Eds.), *Creating our identities in service-learning and community engagement*, 103-127. Charlotte, NC: Information Age.
- Pickard, A.J. 2007 *Research methods in information*. London: Facet Publishing.
- Pike, G. R. 2006. Students' personality types, intended majors, and college expectations: Further evidence concerning psychological and sociological interpretations of Holland's theory. *Research in Higher Education*, 47(7):801-822.
- Pintrich, P.R. & Schunk, D.H. 2002. *Motivation in education: Theory, research, and applications*. Upper Saddle River, New Jersey: Pearson Education.
- Piquet, M. 2006. Australian multicultural equity and fair go. In Kennedy-Dubourdie, E (Ed.). *Race and inequality: World perspectives on affirmative action*, 127-152. Surrey, England: Ashgate Publishers.
- Planty, M., Bozick, R., & Ingels, S.J. 2006. *Academic pathways, preparation, and performance: A description overview of the transcripts from the high school graduating class of 2003-2004*. Washington, D.C.: U.S. Department of Education.
- Pong, S.L., Dronkers, J. & Thompson, G.H. 2003. Family policies and children's school achievement in single- versus two-parent families. *Journal of Marriage and Family*, 6(58):681-699.
- Porter, L.L., Bigley, G.A. & Steers, R.M. 2003. *Motivation and work behavior*. New York: McGraw-Hill.
- Porter, S. R. 2003. Understanding retention outcomes: Using multiple data sources to distinguish between dropouts, stop-outs, and transfer-outs. *Journal of College Student Retention: Research, Theory and Practice*, 5(1):53-70.
- Povey, H. & Angier, C. 2004. *I can do it, but it'll be a battle: Finding her place as an undergraduate mathematician*. Sheffield: Hallam University.
- Powell, L., and S. McGrath. 2019. Capability or Employability: Orienting VET toward 'real Work'. In *Handbook of Vocational Education and Training*, edited by S. McGrath, M. Mulder, J. Papier, and R. Suart. Basel: Springer.

- Price, I.F., Matzdorf, F., Smith, L. & Aghai, H. 2003. The impact of facilities on student choice of university. *Facilities*, 21(10):212-230.
- Punch, K.F. 2003. *Survey research-the basics*. London: Sage Publications.
- Punch, 2005. *Introduction to social research: Quantitative and qualitative approaches*. (2ndEd). London: SAGE.
- Punch, K.F. 2009. *Introduction to research methods in education*. Los Angeles: SAGE.
- Punnarach, S. 2004. *The image of private universities from high school students and occupational students' viewpoint*. Bangkok: Kasem Bundit University.
- Purcell, K., Elias, R., Atfield, G., Adam, D. & Livanos, I. 2008. Applying for higher education. The diversity of career choices: Plans and expectations. Findings from first future track survey of the class of 2006 applicants in higher education. Manchester: Higher Education Career Services Unit.
- Purcell, K., Morley, M. & Rowley, G. 2002. *Employers in the New Graduate Labour Market: recruiting from a wider spectrum of graduates*. Bristol: Employment Studies Unit, University of the West of England.
- Pym, J. 2013. From fixing to possibility: Changing a learning model for undergraduate students. Director: Education development unit (Commerce), University of Cape Town, Cape Town, South Africa.
- Quinn, J., Thomas, L., Slack, K., Casey, L., Thexton, W., & Nobel, J. 2005. *From life disaster to lifelong learning: Reframing working class 'Drop out'*. New York: Joseph Rowntree Foundation.
- Radcliffe, P., Huesman, R. & Kellogg, J. 2006. Modelling the incidence and timing of student attrition: A survival analysis approach to retention analysis. Paper presented at the annual meeting of the Association for Institutional Research in the Upper Midwest (AIRUM).
- Radcliffe, P., Huesman, R., Kellogg, J. & Jones-White, D. 2009. Identifying students at risk: Utilizing survival analysis to study student athlete attrition. *IR Applications*, 1(21):53-85.
- Raley, Y. 2007. Why we quit. *Scientific American Mind*, 18(4):74-79.
- Ramose, M, 2003. Transforming education in South Africa: Paradigm shift or change? *South Africa Journal of Higher Education*, 17(3):137-143.
- Ravjee, N., Hames, M., Ludwig, V. & Barnes, T. 2010. The cultural politics of equitable access and success: A case study of the University of the Western Cape in Council on Higher Education, *Access and throughput in South African Higher Education: Three case studies*, Pretoria.
- Read, B., Archer, A. & Leathwood, C. 2003. Challenging cultures? Student Conceptions of Belonging and Isolation at a Post-1992. *University in Studies in Higher Education*, 28(3):261-277.
- Redden, E. 2007. The benefits of dual enrollment. Accessed in September, 2014, <http://www.insidehighered.com/>. Washington, DC: National Center for Education Statistics.

- Reibnegger, G., Caluba, H.C., Ithaler, D., Manhal, S., Neges, H.M., & Smolle, J. 2010. Progress of medical students after open admission or admission based on knowledge tests. *Medical Education*, 44(2):205-214.
- Redmond, P. 2017. VET practitioner's perceptions of VET higher education qualifications. *International Journal of Education Research* 15(1): 55–70.
- Rekpo, A.F. 2012. *Interdisciplinary research process and theory*. (2ndEd.). London: Sage.
- Remler, D.K. & Van Ryzin, G.G. 2011. Research methods in practice strategies for description and causation. London: Sage.
- Rendón, L.I., Jalomo, R.E. & Nora, A. 2000. Theoretical considerations in the study of minority student retention in Higher Education. In Braxton, J.M. (1stEd.). *Reworking the student departure puzzle*. Nashville, TN: Vanderbilt University Press.
- Rendón, L., Jalomo, R. & Nora, A. 2004. Theoretical considerations in the study of minority student retention in Higher Education. In Braxton, J.M. & Nashville, T.N. (2ndEds.). *Reworking the student departure puzzle*. Nashville, TN: Vanderbilt University Press.
- Republic of South Africa. 1996a. The Constitution of the Republic of South Africa, Act No 108 of 1996. Government Gazette. Pretoria: Government Printers.
- Republic of South Africa. 1996b. The National Education Policy Act No 27 of 1996. Government Gazette No 370 (24 April 1996). Cape Town: Government Printers.
- Republic of South Africa. 2012. The Further Education and Training College Act, 2012. Further Education and Training Colleges Act No 3 of 2012 as amended. Government Gazette, 3 May 2012. Cape Town: Republic of South Africa. Government Gazette No 35308 (3 May 2012). Cape Town: Government Printers.
- Retention Study Group. 2004. *Promoting success for Carolina's undergraduates: Factors related to retention and graduation*. Enrolment Policy Advisory Committee. University of North Carolina, Chapel Hill.
- Rich, A.M., Ayers, K.M., Thomson, W.M., Sinclair, R.J., Rohan, M.J., & Seymour, G.J. 2012. Does performance in selection processes predict performance as a dental student? *European Journal of Dental Education*, 16(1):27-34.
- Richardson, H. 2009. University visit days. In Cook, A. & Rushton, B.S. (Eds.). *How to recruit and retain Higher Education students: A handbook of good practice*. New York: Taylor & Francis.
- Ritchie, J. & Lewis, J. 2003. *Qualitative research practice. A guide for Social Science Students and Researchers*. London: Sage Publications.
- Robinson, J.D. 2011. Conversation analysis and health communication. In Thompson, T.L., Parrott, R. & Nussbaum, J.F. (Eds.). *Routledge handbook of health communication* (2ndEd.), 490-501. New York, NY: Routledge.
- Robson, C. 2011. *Real world research: A resource for users of social research methods in applied settings*. (3rdEd.). Chichester, West Sussex: Wiley.

- Rocco, T.S., Bliss, L.A, Gallagher, S. & Perez-Prado, A. 2003. Taking the next step: Mixed methods research in organizational systems. *Information Technology, Learning, and Performance Journal*, 21(1):19-78.
- Roderick, M., Nagaoka, J., & Coca, V. 2009. College readiness for all: The challenge for urban high schools. *The Future of Children*, 19(1):85-209.
- Roman, M.A. 2007. Community College admission and student retention. *Journal of College Admission*, 23(1):16-21.
- Rosenbaum, J.E., Stephan, J.L., & Rosenbaum, J. E. 2010. Beyond one-size-fits-all college dreams: Alternative pathways to desirable careers. *American Educator*, 34(3):1-12.
- Rougaas, B. 2001. Opening address. In Council of Europe proceedings of lifelong learning for equity and social cohesion: A new challenge to Higher Education. Final Conference Paris: Strasbourg, Council of Europe.
- Rowan-Kenyon, H.T., Bell, A.D., & Perna, L.W. 2008. Contextual influences on parental involvement in college going: Variations by socioeconomic class. *The Journal of Higher Education*, 79(5):564-586.
- Rudestam, K. E. & Newton. R. R. 2007. *Surviving your dissertation*. (3rdEd.). Thousand Oaks, CA: Sage.
- Rugg, G. & Petre, M. 2007. *A gentle guide to research methods*. McGraw-Hill House: Open University Press.
- Ryan, J. E., Matheson, W. L., & Morgenthau, R. M. 2004. The perverse incentives of the no child left behind Act. *New York University Law Review*, (79):932-989.
- Saldana, J. 2011. *Fundamentals of qualitative research*. London: Oxford University Press.
- Salinitri, G. 2005. The effects of formal mentoring on the retention rates for first-year, low achieving students. *Canadian Journal of Education*, 28(4):853-873.
- Salvatori, P. 2001. Reliability and validity of admissions tools used to select students for the health professions. *Advisory Health Science Education Theory Practice*, 6(2):159-175.
- Samarge, S.P. 2006. *Creating a college culture at the elementary school level*. University of California Los Angeles. Doctoral dissertation. Accessed in July 2014, from <http://proquest.umi.com.ezproxy>.
- Sanders, M. G. & Sheldon, S. B. 2009. *Principals matter: A guide to school, family and community partnerships*. Thousand Oaks: Corwin.
- Saunders, M., Lewis P. & Thornhill, A. 2009. *Research methods for business students*. (5thEd.). New Jersey: Prentice Hall.
- Saunders, M., Lewis, P., & Thornhill, A. 2003. *Research methods for business student*. (3rdEd.). London: Financial Times-Prentice Hall.

- Saupe, J. L. & Eimers, M. T. 2011. Correcting correlations when predicting success in College. *International Research Applications*, 31. Association for Institutional Research.
- Sayed, Y., Subrahmannian, R., Soudien, C., Carrim, N., Balgopalan, S., Nekhwevha, F., & Samuel, M. 2007. *Education exclusion: Policy and implementation in South Africa and India*. Pretoria: Human Sciences Research Council.
- Schiffman, L.G. & Kanuk, L.L. 2004. *Consumer Behaviour*. (8th Ed.). Upper Saddle River, New Jersey: Prentice Hall.
- Schiffman, L. G. & Kanuk, L. L. 2007. *Consumer Behavior*. (9thEd.). New Jersey: Prentice Hall.
- Schlossberg, N. K. 1989. Marginality and mattering: Key issues in building community. *New Directions for Student Services*, 48:5-15.
- Schmidt, M.J. & Hollensen, S. 2006. *Marketing research: An international approach*. England: Prentice-Hall.
- Schmidt, P. 2008. Most Colleges chase prestige on a treadmill, researchers find. *The Chronicle of Higher Education*, 55(13):14.
- Schmitt, N. 2012. Development of rationale and measures of non-cognitive College student potential. *Educational Psychologist*, 47(1):18-29.
- Schmitt, N., Keeney, J., Oswald, F., Pleskac, T., Billington, A., Sinha, R., & Zorzie, M. 2009. Prediction of 4-year College student performance using cognitive and non-cognitive predictors and the impact on demographic status of admitted students. *Journal of Applied Psychology*, 94(6):1479-1497.
- Schwandt, T. A. 2000. Three epistemological stances for qualitative inquiry: Interpretivism, hermeneutics, and social constructionism. In Denzin, N.K. & Lincoln, Y.S. (Eds.). *Handbook of qualitative research*, 189-213. Thousand Oaks, CA: Sage.
- Schwardt, T.A. 2007. *The SAGE dictionary of qualitative inquiry*. (3rdEd.). University of Illinois: Urbana-Champaign.
- Schwartz, S. 2004. Admissions to Higher Education Review September 2004. State for Education and Skills: Brunel University.
- Schwartz, S. 2004. Admissions to Higher Education. Fair admissions to Higher Education: Recommendations for good practice. www.admissions-review.org.uk.
- Scott, D.M., Spielmans, G.L. & Julka, D.C. 2004. Predictors of academic achievement and retention among college freshmen: A Longitudinal study. *College Student Journal*, 38(1):66-80.
- Scott, G. 2005. *Accessing the voice. Higher Education innovation program and collaboration and structural reform fund*. Department of Education, Science and Training. Canberra: Commonwealth Australia.

- Scott, I. 2012. Access, success and curriculum: Aspects of their organic relationship. In Dhunpath, R. & Vithal, R. (Eds.). *Alternative access to Higher Education: Underprepared students or underprepared institutions, 1-18?* Cape Town: Pearson.
- Scott, J. & Graal, M. 2006. Why are students failing? An interview-based investigation of factors underlying academic failures in first year. In Cook, A., Rushton, B.S. & Macintosh, K.A. (Eds.). *Student Transition and Retention (STAR)*, 41-46, Coleraine: University of Ulster.
- Scott, I., Yeld, N. & Hendry, J. 2007. *A case for improving teaching and learning in South African Higher Education*, 6:1-86. Retrieved from www.che.ac.za.
- Seginer, R. 2009. *Future orientation: Developmental and ecological perspectives*. New York: Springer.
- Seidman, A. 2005a. Introduction, xi-xiv. In Seidman, A. (Ed.). *College student retention*. Westport: Praeger Publishers.
- Seidman, A. 2005b. Minority student retention: Resources for practitioners. *New Directions for Institutional Research*, (125):7-24.
- Seidman, A. 2012. Taking action: A retention formula and model for student success, 267-284. In Seidman, A. (2ndEd.). *College student retention: Formula for student success*. Lanham, MD: Rowman & Littlefield.
- Selesho, J.M. 2014. Equity challenge faced by female student with regard to access to FETC: Towards Realisation of FETC as Institutions of Choice. *Faculty of Management Sciences. Vaal University of Technology. South Africa. Mediterranean Journal of Social Science*, 5(2):135-137.
- Sevier, R. 2001. Brand as relevance. *Journal of Marketing for Higher Education*, 10(3):77-96.
- Sevier, R. 2002. *Building a brand that matters: Helping colleges and universities capitalize on the four essential elements of a block-buster brand*. Indiana: Strategy Publishing.
- Sevier, R.A. 2004. What every college president needs to know about marketing and recruiting. Stamatas Communications Inc. White Paper No. 2, available at: www.stamatas.com.
- Shanley, B. J. 2007. Test-optional admission at a liberal arts college: A founding mission affirmed. *Harvard Educational Review*, 77(4):429-34.
- Sheldon, S. B. 2002. Parents' social networks and beliefs as predictors of parent involvement. *Elementary School Journal*, (102):301-316.
- Shoa, A.T. 1999. *Marketing research*. Ohio: South-Western College Publishing.
- Sidhu, K. S. 2003. *Methodology of research in education*. New Delhi: Sterling Publishers.
- Sikhwari, T.D. 2007. The relationship between affective factors and the academic achievement of students at the University of Venda. *South African Journal of Higher Education*, 21:520-536.
- Silverman, D. 2004. *Qualitative research theory, method and practice*. London: Sage Publications.

- Silverman, D. 2006. *Interpreting qualitative data: Methods for analysing talk, text and interaction*. (3rdEd.). Los Angeles: Sage.
- Simuchimba, M. & Luangala, J.R. 2007. Persistence of corporal punishment in some Copperbelt basic schools, 1(1):1-11. *Zambia Journal of Education, School of Education: UNZA*.
- Singh, M, 2006. Bundy blues: Contradictions and choices in South African Higher Education. *Ten Years of Higher Education under Democracy*, (4):64-75. Council on Higher Education. Pretoria.
- Sing, R.S. 2013. *Research methods and statistical techniques*. New Delhi: Anmol Publications.
- Slonimsky, L. & Shalem, Y. 2006. Pedagogic responsiveness for academic depth. *Journal of Education*, 40:35-58.
- Smith, J.S. & Wertlieb, E.C. 2005. Do First-Year College Students' Expectations Align with their First-Year Experiences? *NASPA Journal*, 42(2). <https://doi.org/10.2202/0027-6014.1470>
- Smith, S. T. 2011. *Impact of changes in unemployment rate and population on enrolment in North Carolina's rural, urban, and suburban community colleges*. Capella University.
- Snyders, A.R., McLaughlin, D.K. & Findeis, J. 2006. Household composition and poverty among female-headed households with children: Differences by race and residence. *Rural Sociological Society*, 71(4):591-624.
- Soares, J. A. 2012. *SAT wars: The case for test-optional admissions*. New York: Teachers College Press, Columbia University.
- Sommer, M. & Dumont, K. 2011. Psychosocial factors predicting academic performance of students at a historically disadvantaged university. *South African Journal of Psychology*, 41:386-395.
- Soudien, C. 2008. The intersection of race and class in the South African university: Student experiences. *South African Journal of Higher Education*, 22(3):662-678.
- Soutar, G.N. & Turner, J.P. 2002. Students' preferences for university: A conjoint analysis. *The International Journal of Educational Management*, 16(1):40-45.
- Spatz, C. & Kardas, E.P. 2008. *Research Methods. Ideas, Techniques and Reports*. Boston: McGraw Hill Higher Education.
- Stemler, S. E. 2012. What should university admissions tests predict? *Educational Psychologist*, 47(1):5-17. <http://dx.doi.org/>.
- Stensaker, B. 2008. Outcomes of quality assurance: A discussion of knowledge, methodology and validity. *Quality in Higher Education*, 14(1):5-13.
- Sternberg, R. J. 2005. Accomplishing the goals of affirmative action: With or without affirmative action. *Change*, 37(1):6-14.
- Sternberg, R. J. 2007. Right answer to the wrong question: A reply to Jung and Haier. *Behavioral and Brain Sciences*, 30(2):170-171.

- Sternberg, R. J. 2008. Applying psychological theories to educational practice. *American Educational Research Journal*, 45(1):150-165.
- Sternberg, R. J. 2010. *College admission for the 21st century*. Cambridge, MA: Harvard University Press.
- Sternberg, R. J., Gabora, L., & Bonney, C. R. 2012. Introduction to the special issue on College and University admissions. *Educational Psychologist*, 47(1):1-4.
- Steyn, A. G. W. 2011. Measuring student participation in the Higher Education Environment in South Africa. *Institutional Research and Planning Division Stellenbosch University*. South Africa: Stellenbosch University.
- Steyn, G. & de Villiers, P, 2006. The impact of changing funding sources on Higher Education institutions in South Africa. Pretoria: Council on Higher Education.
- Steyn, M.G., Harris, T. & Hartell, C.G. 2012. Where are the foundation phase teachers for our children? Black students' perceptions. *South African Journal of Higher Education*, 25(3):583-597.
- Straus, A. & Corbin, J. 1990. *Basics of qualitative research: Grounded theory, procedures, and techniques*. Newbury Park, CA: Sage Publications.
- Strayhorn, L.T. 2010. The role of schools, families, and psychological variables on math achievement of black high school students. *The High School Journal*, 93(4), 177-191.
- Strayhorn, T. L. 2008. Sentido de pertenencia: A hierarchical analysis predicting sense of belonging among Latino College students. *Journal of Hispanic Higher Education*, 7(4):301-320.
- Strayhorn, T.L. 2009. *Different folks, different hopes. The educational aspirations of black males in urban, suburban, and rural high schools*. Knoxville: University of Tennessee.
- Streiner, D.L. & Norman, G.R. 2008. *Health measurement scales: A practical guide to their development and use (4thEd.)*. Oxford: Oxford University Press.
- Strickland, M.J., Shumow, L. 2008. Family matters: Exploring the complexities of families of immigrant adolescents and achievement in four G8 countries. *The Open Family Studies Journal*, 1:39-48.
- Strydom, H. & Venter, L. 2002. Sampling and sampling methods. In De Vos, A.S., Strydom, H., Fouché, C.B., & Delpont, C.S.L. 2002. *Research at grass roots for the social sciences and human service professions*. (2ndEd.). Pretoria: Van Schaik Publishers.
- Strydom, H. 2005. Information collection: Participant observation. In De Vos, H., Strydom, H., Fouché, C.B. & Delpont, C.S.L. *Research at grass roots*, 251-274. Pretoria: Van Schaik Publishers
- Stuart, M., Lido, C., Morgan, M., Solomon, L. & Ackroyd, K. 2008. Widening participation and continuing to postgraduate education: Decision making, deterrents and creating success. York: Higher Education Academy.

- Stumpf, R. 2009. *Increasing educational opportunities for post NQF level 4 learners in South Africa through the Further Education and Training College environment*. Pretoria: Further Education and Training Institute.
- Suter, W.N. 2012. *Introduction to educational research*. (2ndEd.). Thousand Oaks, California: SAGE Publications.
- Swail, W.N. 2004. *The art of student retention a handbook for practitioners and administrators*. www.educationalpolicy.org. Educational Policy Institute.
- Swail, W. S. 2006. Seven guiding questions for student retention. *Student Success*. Albany, NY: SUNY Press.
- Swail, W.S. 2014. Higher learning research communications: *A different viewpoint on student retention*. 4(2):1-25.
- Tabachnick, B.G. & Fidell, L.S. 2007. *Using multivariate statistic*. (5thEd.). Boston: Pearson Education.
- Tatum, A. 2009. *Reading for their life: Re-building the textual lineages of African American adolescent males*. Portsmouth, NH: Heinemann.
- Taylor, P.J. 2004. Fruits of democratic transformation of education in a South African University in 1998: Perspectives of students in the School of Education, University of Cape Town. *McGill Journal of Education*, 39(3):283.
- Taylor, S. J., & Bogdan, R. 1998. *Introduction to qualitative research methods: A guidebook and resource*. (3rdEd.). New York: John Wiley & Sons, Inc.
- Teddlie, C. & Tashakkori, A. 2009. *Foundations of mixed methods research: Integrating quantity and qualitative approaches in the social and behavioural sciences*. USA: SAGE Publications.
- Teoh, K.S. 2008. My father wants me to study engineering! In *Crosling, G., Thomas, L. & Heagney, M. (Eds.). Improving student retention in Higher Education*, 52-56. New York: Routledge Falmer.
- Terre Blanche, M. & Durkheim, K. 2004. *Research in practice*. Cape Town: University of Cape Town Press.
- Terre Blanche, M., Durkheim, K., & Painter, D. 2006. *Research in practice: Applied methods for the social sciences*. Cape Town: Juta and Company Ltd.
- Thayer, P. 2000. Retention of students from first-generation and low-income backgrounds. *The Journal of the Council for Opportunity in Education*, Washington, D.C: U.S. Department of Education.
- Thayer, P. 2000. Retention of students from first generation and low income backgrounds. *Opportunity Outlook Journal*, 3(1):2-8.
- The Kresge Foundation. 2011. *Report of the Vice-Chancellor's meeting: Opportunities for Kresge in South Africa*. Cape Town.

- Thiel, T., Peterman, S. & Brown, M. 2008. Addressing the crisis in College Mathematics. Designing courses for student success. Course redesign improves learning and reduces cost, 23-45. The National Centre for Public Policy and Higher Education. *Change*. July/August.
- Thomas, L. 2002. Student retention in Higher Education: The role of institutional habitus. *Journal of Education Policy*, 17(4):423-432.
- Thomas, L. 2008. Student success and retention. In Crosling, G., Thomas, T. & Heagney, M. (Eds.). *Improving student retention in Higher Education: The role of teaching and learning*. London and New York: Routledge.
- Thomas, G. 2010. *How to do your research project: A guide for students in education and applied social sciences*. Los Angeles: SAGE.
- Thomas, L. 2012. Building student engagement and belonging in Higher Education at a time of change: Final report from the What Works? *Student Retention & Success programme*. London: Paul Hamlyn Foundation, 100.
- Thomas, L. & Heagney, M. (Eds.). 2005. *Improving student retention in higher education: The role of teaching and learning*. London: Routledge.
- Thomas, E., Woodrow, M. & Yorke., M. 2002. Access and Retention. In Layer, G. et al. (Eds.). *Student success in Higher Education*. Bradford.
- Thomas, L., Quinn, J., Slack, K. & Casey, L. 2002. *Student services: Effective approaches to retaining students in Higher Education*. Institute for Access Studies: Staffordshire University.
- Thomas, L. & Quinn, J. 2003. *International insights into widening participation: Supporting the success of under-represented groups in tertiary institutions*. Stoke-on-Trent. Staffordshire University: The Institute for Access Studies.
- Thomas, L. & Quinn, J. 2006. *First generation entrants in Higher Education: An international analysis*. Maidenhead: Society for Research in Higher Education and Open University Press.
- Thomas, L., Quinn, J., Slack, K., & Casey, L. 2002. *Student services: Effective approaches to retaining students in Higher Education*. Institute for access studies: Staffordshire University.
- Tierney, W. G. 1992. An anthropological analysis of student participation in College. *The Journal of Higher Education*, 63(6):603-618.
- Tight, M. 2002. *Key concepts in adult education and training*, (2ndEd.). London: Routledge Falmer.
- Tinto, V.1987. *Leaving College: Rethinking the causes and cures of student attrition*. Chicago: University of Chicago Press.
- Tinto, V. 1975. Drop-out from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45(1):89-125.
- Tinto, V.1993. *Leaving College: Rethinking the causes and cures of student attrition*. (2ndEd). Chicago: University of Chicago Press.

- Tinto, V. 1995. *Educational communities and student success in the first year of university*. Paper presented at the Monash University Conference on the Transition from Secondary School to University, Melbourne.
- Tinto, V. 1997. Classrooms as communities: Exploring the educational character of student persistence. *Journal of Higher Education*, 68(6):599-623.
- Tinto, V. 1998. Learning communities and the reconstruction of Remedial Education in *Higher Education*. Replacing Remediation in Higher Education Conference, Stamford University.
- Tinto, V. 2000. Linking learning and leaving: Exploring the role of the college classroom in student departure. In Braxton, J.M. (Ed.). *Reworking the student departure puzzle*, 81-94. Nashville: Vanderbilt University Press.
- Tinto, V. 2000. Reconstructing the first year of College. *Student Support Services model retention strategies for two-year Colleges*, Washington DC: Council for Opportunity in Education.
- Tinto, V. 2001. *Rethinking the first year of College*. Higher Education Monograph Series. Syracuse University.
- Tinto, V. 2004. *Student retention and graduation: Facing the truth, living with the consequences: Occasional Paper 1*. Washington, DC: The Pell Institution for the Study of Opportunity in Higher Education.
- Tinto, V. 2005. Moving from theory to action. In Seidman, A. (Ed.). *College student retention*, 89-97. Westport: Praeger Publishers.
- Tinto, V. 2005. Reflections on retention and persistence: Institutional actions on behalf of student persistence. *Studies in Learning, Valuation, Innovation and Development*, 2(3):89-97.
- Tinto, V. 2006. Research and practice of student retention: What next? *Journal of College Student Retention*, 8(1):1-9.
- Tinto, V. 2010. From theory to action: Exploring the institutional conditions for student retention. *Higher Education: Handbook of Theory and Research*, 25:51-89.
- Tinto, V. 2012a. *Completing college: Rethinking institutional action*. Chicago: University of Chicago Press.
- Tinto, V. 2012b. Moving from theory to action: A model of institutional action for student success. In Seidman, A. (2nd Ed.), *College student retention: Formula for student success*. Lanham, MD: Rowman & Littlefield.
- Tovar, E. 2013. A Conceptual model on the impact of mattering, sense of belonging, engagement/involvement, and Socio-Academic Integrative Experiences on Community College Students' Intent to Persist. Claremont Graduate University Theses & Dissertations. Paper 81. <http://scholarship.claremont.edu/cgu>.
- Tovar, E. & Simon, M. A. 2010. Factorial structure and invariance analysis of the sense of belonging scales. *Measurement and Evaluation in Counselling and Development*, 43(3):199-217.

- Tracy, S. J. 2013. *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact*. John Wiley & Sons.
- Trainin, G. & Swanson, H.L. 2005. Cognition, metacognition, and achievement of College students with learning disabilities. 28(1):269.
- Trowler, V. 2010. Student engagement literature review. Department of Educational Research. Lancaster University.
- Tustin, D.H., Ligthelm, A.A., Martins, J.H., & van Wyk, H.J. 2005. *Marketing research in practice*. South Africa: UNISA Press.
- Tuttle, K. N. 2000. Academic advising. *New Directions for Higher Education*, 111:15-24.
- Tzanakis, M. 2011. Bourdieu's social reproduction thesis and the role of cultural capital in educational attainment: A critical review of key empirical studies. *The Journal of Doctoral Research in Education*, 11(1):76-90.
- U.S. Department of Education. 2006. *A test of leadership: Charting the future of U.S. Higher Education*. Washington DC: Government Printers.
- United Nations Educational, Scientific and Cultural Organization (UNESCO). 1998a. Mumbai Statement on Lifelong Learning, Citizenship and the Reform of Higher Education (<http://www.unesco.org/education/uie/online/olpub.html>).
- United Nations Educational, Scientific and Cultural Organization (UNESCO). 1998b. Higher Education in the 21st Century: vision and action. Final Report of the World Conference on Higher Education, Paris, 5-9 October 1998. Paris: UNESCO.
- Usher, A. 2006. *Grants for students: What they do, why they work*. Toronto: ON Educational Policy Institute.
- Usher, A. 2009. Ten years back and Ten years forward: Developments and Trends in Higher Education in the Europe Region. Paper presented at the UNESCO *forum on Higher Education in the Europe Region: Access, Values, Quality and Competitiveness*, 21-24 May 2009. Romania: Bucharest.
- Van der Aardweg, E.M. & Van der Aardweg, E.D. 2006. *Dictionary of educational psychology*. Pretoria: E and Enterprises.
- Van der Berg, S. 2007. Apartheid's enduring legacy: Inequalities in education. *Journal of African Economies*, 16(5):849-880.
- Van der Berg, S. 2008. How effective are poor schools? Poverty and educational outcomes in South Africa. *Studies in Educational Evaluation*, (34):145-154.
- Van der Bijl, A. & Taylor, V. (2018). Work-integrated learning for TVET lecturers: Articulating industry and college practices. *Journal of Vocational, Adult and Continuing Education and Training*, 1(1), 126-145.

- Van der Walt, H.S. & Pickworth, G. 2007. Personality and academic performance of three cohorts of veterinary students in South Africa. *Journal of Veterinary Medical Education*, 34(3):356-365.
- Van Gennep, A. 1960. *The rites of passage*. Translated by M.B. Vizedom and G.L. Caffee. Chicago: University of Chicago Press.
- Van Stolk, C., Tiessen, J., Clift, J. & Levitt, R. 2007. *Student retention in Higher Education courses: International comparison*. Santa Monica: Rand Corporation.
- Van Wyk, B. 2003. Educational transformation: Towards re-imagining Higher Education. *South African Journal of Higher Education*, 17(3):152-158.
- Van Wyk, B. 2005. Performativity in Higher Education transformation in South Africa. *South African Journal of Higher Education (HE)*, 19(1):5-19.
- Van Zyl-Schalekamp, C. & Mthombeni, P. 2015. Social-background factors affecting the academic success of first year sociology students at the University of Johannesburg. *Journal Sociology*, 6(1):31-44.
- Vinjevold, P. 2009. Addressing Parliamentary Portfolio Committee on Higher Education and Training on the national enrolment plan for Colleges on behalf of the Department of Higher Education and Planning. News Business of Parliament. September.
- Von Bertalanffy, L. 1968. System theory foundations, development, applications. *University of Alberta Edmonton, Canada*. New York: GEORGE BRAZILLER.
- Walliman, N. 2005. *Your research project: A step by step guide for the first-time researcher*. (2ndEd.). London: Sage.
- Walsh, J. 2000. *Unique and effective practices for TRIO Student Support Services programs*. Kankakee, IL: Kankakee Community College.
- Walters, E. 2004. Enhancing student learning and retention through the merger of the academic and student affairs unit: The Olivet plan. *Journal of College Student Retention*, 5(1):23-36.
- Walton, G. & Cohen, G. 2007. A question of belonging: Race, social fit and achievement. *Journal of Personality and Social Psychology*, 92(1):82-96.
- Warburton, E. C., Bugarin, R., & Nuñez, A. M. 2001. Bridging the gap: Academic preparation and postsecondary success of first-generation students. *Education Statistics Quarterly*, 3(3):73-77.
- Ward, I., Crosling, G. & Marangos, J. 2000. Encouraging positive perceptions of economics: The effectiveness of the orientation tutorial. *Economic Papers*, 19(3):35-44.
- Warren A. 2002. Can desertification be simply defined? In CCD: Implementing the United Nations Convention to Combat Desertification. Past Experience and Future Challenges, Markussen, H.S, Nygaard, I., Reenberg, A. (Eds.). Serein Occasional Paper, 14. Sahel-Sudan Environmental Research Initiative, University of Copenhagen: Copenhagen, 19-46.
- Warren, D. 2003. Improving student retention: A team approach. *Annual conference of the Institute for Learning and Teaching in Higher Education*, University of Warwick, Coventry.

- Watson, M., McMahon, M., Foxcrof, C., & Els, C. 2010. Occupational aspirations of low socio-economic black South African children. *Journal of Career Development*, 37(4):717-734.
- Webb, J.R. 2002. *Understanding and designing marketing research*. (2ndEd.). London: Thomson Learning.
- Webb, V.N. 2000. Constitutional principles and challenges for language policy and language planning in tertiary education. *Keynote lecture at the seminar on language policy at the tertiary level*. Potchefstroom University for Higher Education, Vaal Triangle Campus. South Africa.
- Weinreich, N.K. 2009. *Integrating quantitative and qualitative methods in social marketing research*. Accessed from <http://www.social-marketing.com>.
- Wellman, C., Kruger, F., & Mitchell, B. 2005. *Research methodology*. (3rdEd.). Cape Town: Oxford University Press.
- Wellman, C., Kruger, F., & Mitchell, B. 2011. *Research methodology*. (3rdEd.). Cape Town: Oxford University Press.
- Wells, M. I. 2003. An epidemiologic approach to addressing student attrition in nursing programs. *Journal of Professional Nursing*, 19(4):230-236.
- Wells, M. I. 2007. Dreams deferred but not deterred: A qualitative study on undergraduate nursing student attrition. *Journal of College Student Retention: Research, Theory and Practice*, 8(4):439-456.
- Wells, R. 2009. Social and cultural capital, race and ethnicity, and college student retention. *Journal of College Student Retention: Research, Theory & Practice*, 10(2):103-128.
- Welman, C., Kruger, F. & Mitchell, B. 2005. *Research methodology*. (3rdEd.). Cape Town: Oxford University Press (Pty) Ltd.
- White, C.J. 2005. *Research: A practical guide*. Pretoria: Ithuthuko Investments Publisher.
- White, J. W. 2005. Sociolinguistic challenges to minority collegiate success: Entering the discourse community of the college. *Journal of College Student Retention: Research, Theory & Practice*, 6(4):369-393.
- Whitehead, J.M., Raffan J., & Deaney R. 2006. University choice: What influences the decision of academically successful post - 16 students. *Higher Education Quarterly*, 60(1): 4-26.
- Wiersma, W. & Jurs, S. G. 2005. *Research methods in education: An introduction*. (8thEd.). Boston: Pearson.
- Wiese, M., van Heerden, C.H., & Jordaan, Y. 2010. *The role of demographics in students' selection of Higher Education institutions*. South Africa: University of Pretoria.
- Wiese, M., van Heerden, N., Jordaan, Y. & North, E. 2009. A marketing perspective on choice factors considered by South African first-year students in selecting a Higher Education institution. *Southern African Business Review*, 13(1):39-60.

- Wild, L. & Ebbers, L. 2003. Rethinking student retention in community colleges. *Community College Journal of Research and Practice*, 26(3):503-519.
- Williams, I. L., Glenn, P.W. & Wider, F. 2008. Nurtured advising: An essential approach to advising students at historically black colleges and universities. *Academic advising today*, 31(1). Retrieved on June 2015, from <http://www.nacada.ksu.edu/AAT/NW31>.
- Willms, J. D. 2003. Student engagement at school: A sense of belonging and participation, OECD Publishing. Retrieved on April 2015, from <http://www.oecd.org/education/school/programmeforinternationalstudentassessmentpisa/33689437.pdf>
- Wilson-Strydom, M. 2012. *A framework for facilitating the transition from school to university in South Africa: A capabilities approach*. Unpublished PhD Thesis, University of the Free State. South Africa.
- Wimmer, R.D. & Dominick, J.R. 2003. *Mass media research. An introduction*. (7thEd.). Australia: Thomson Wadsworth.
- Wiswall, M. 2006. Skill composition and the returns to Post-Secondary Education in the United States. Working Paper.
- Wlodkowski, R. J., Mauldin, J. E., & Campbell, S. 2002. *Early exit: Understanding adult attrition in accelerated and traditional postsecondary programs*. Indianapolis: Lumina Foundation for Education.
- Wolf-Wendel, L., Ward, K., & Kinzie, J. 2009. A tangled web of terms: The overlap and unique contribution of involvement, engagement, and integration to understanding college student success. *Journal of College Student Development*, 50(4):407-428.
- Wolff, K. 2018. "Theory and Practice in the 21st Century Engineering Workplace." In *Knowledge, Curriculum, and Preparation for Work*, edited by S. Allais and Y. Shalem, 182–205. Leiden and Boston: Brill Sense.
- World Bank. 2019. *South Africa economic update: Tertiary education enrolments must rise*. Washington.
- Wyer, K. 2005. *Today's college freshmen have family income 60% above national average, UCLA survey reveals*. UCLA News.
- Yang, Y.L. & Grauer, B. 2016. The effect of financial support on academic achievement and retention of female engineering students ASEE's 123rd Annual Conference & Exposition, Paper ID#14783.
- Yorke, M. & Longden, B. 2004. *Retention and student success in Higher Education*. Buckingham: Open University Press.
- Yorke, M. & Longden, B. 2008. *The First Year Experience of Higher Education in the UK*. York: Higher Education Academy. <http://www.heacademy.ac.uk/ourwork/research/surveys/fye>.

- Yorke, M. 2008. Is the first year experience different for disadvantaged students? In Ferrier, F. & Heagney, M. (Eds.). *Higher Education in diverse communities: Global perspectives local initiatives*. Dublin: Higher Education Authority.
- Yorke, M. & Thomas, L. 2003. Improving the retention of students from lower socio-economic groups. *Journal of Higher Education Policy and Management*, 25(1):63-74.
- Young, D. B. & Ley, K. 2002. Brief report: Self-efficacy of developmental College students. *Journal of College Reading and Learning*, 33(1):21-30.
- Young, D. B. & Ley, K. 2003. Self-regulation support offered by developmental educators. *Journal of Developmental Education*, 27(2):2-10.
- Yukeselturk, E. & Inan, F.A. 2006. Examining the factors affecting student dropout. *The Turkish online Journal of Distance Education*, 7.
- Yusof, M., Ahmad, S. N. B., Tajudin, M. & Ravindran, R. 2008. A study of factors influencing the selection of a Higher Education institution. *UNITAR e-journal*, 4(2):27-40.
- Xu, Y.J. 2018. The experience and persistence of college students in STEM majors: J. College Student Retention: Research, Theory & Practice, 19(4) 413-432.
- Zeidenberg, M., Cho, S.W. & Jenkins, D. 2010. Washington State's integrated basic education and skills training program: New evidence of effectiveness. New York: Community college Research Center.
- Zhai, L., & Monzon, R. 2001. *Community College student retention: Student characteristics and withdrawal reasons*. Paper presented at the 2001 California Association of Institutional Research Annual Conference. Sacramento.
- Zhang, Y. & Chan, T. 2007. *An Interim Report on the Student Support Services Program: 2002-03 and 2003-04, with Select Data from 1998-2002*. Washington, DC: U.S. Department of Education, Office of Postsecondary Education. Federal TRIO Programs.
- Zulu, C. 2008. An exploratory study of first-year students at a historically black university campus in South Africa: Their academic experiences, success and failure. *Africa Education Review*, 5(1):30-47.
- Zwick, R. 2007. College admission testing. Arlington: National Association for College Admission Counselling. Toronto: On Educational Policy Instit

Appendix B: Approved ethics certificate



UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 2017/07/12

Ref#: **2017/07/12/33155089/8/MC**

Dear Mr Baloyi,

Name: Mr ML Baloyi

Student#: 33155089

Decision: Ethics Approval from
2017/07/12 to 2022/07/12

Researcher:

Name: Mr ML Baloyi

Email: levyb@lantic.net

Telephone#: 0729215195

Supervisor:

Name: Prof HM van der Merwe

Email: vdmerhm@unisa.ac.za

Telephone#: 0129934370

Title of research:

The management of student retention and achievement at Technical and Vocational Education and Training colleges in Limpopo province

Qualification: D Ed in Education Management

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 2017/07/12 to 2022/07/12.

The low risk application was reviewed by the Ethics Review Committee on 2017/07/12 in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.

The proposed research may now commence with the provisions that:



University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the UNISA College of Education Ethics Review Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No field work activities may continue after the expiry date 2022/07/12. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2017/07/12/33155089/8/MC** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

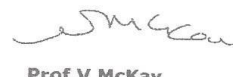
Kind regards,



Dr M Claassens

CHAIRPERSON: CEDU RERC

mcdtc@netactive.co.za



Prof V McKay

EXECUTIVE DEAN

Approved - decision template – updated 16 Feb 2017

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za



APPENDIX C:

REQUEST TO THE PRINCIPAL/CEO TO CONDUCT
RESEARCH AT CAPRICORN TVET COLLEGE

TITLE OF THIS RESEARCH:

THE MANAGEMENT OF STUDENT RETENTION AND
ACHIEVEMENT IN TECHNICAL AND VOCATIONAL
EDUCATION AND TRAINING COLLEGES IN LIMPOPO
PROVINCE

Date: 25 May 2017

Mr KR Madzhie
The College Principal
Capricorn TVET College
61 Market Street
POLOKWANE
0700

Telephone Number: (B): 015 230 1800 (M): 082 202 4608

Email address: kmadzhie@capricorncollege.edu.za

Dear Mr KR Madzhie

I, **Masenyani Levy Baloyi** am doing research under the supervision of **Professor HM van der Merwe**, a Professor in the Department of College of Education towards a Doctoral Degree in Education at the University of South Africa. We have funding from the University of South Africa for a Doctoral Degree studies.

We request for your approval to conduct a research at Capricorn TVET College in a study entitled the management of student retention and achievement in Technical and Vocational Education and Training (TVET) Colleges in Limpopo Province. The aim of the study is to explore factors that influence some students to remain studying at Technical and Vocational Education and Training (TVET) Colleges whilst others dropout before completing their studies. Capricorn College has been selected because it is a merger institution from the previous Technical Colleges that has employees with rich experience in the management of students in both Business and Engineering Campuses at different geographical sites.

This study on student retention and achievement will entail interviews with four employees, namely Campus Manager, Student Support Manager, Enrolment Manager and Lecturer, and collect data from the full time students through the use of questionnaires from your TVET College. The names of the employees and students involved in this study will not be revealed and pseudo-names will be used. The participants will be informed that participating in this study is voluntary and that they are free to withdraw at any time during data collection.

*Amas Maletja¹ Thema
athema@capricorncollege.edu.za*

Appendix C:

LETTER OF REQUEST FOR PERMISSION TO CONDUCT
RESEARCH AT LEPHALALE TVET COLLEGE

TITLE OF THIS RESEARCH:

THE MANAGEMENT OF STUDENT RETENTION AND
ACHIEVEMENT IN TECHNICAL AND VOCATIONAL
EDUCATION AND TRAINING COLLEGES IN LIMPOPO
PROVINCE

Date: 25 May 2017

Mr LJ Mamabolo
The College Principal
Lephalale TVET College
Corner Nelson Mandela Drive and Ngoako Ramathlodi Street
Lephalale

Telephone Number: (B): 014 763 2252 (M): 072 635 3248
Email address: principal@leptvetcol.edu.za

Dear Mr LJ Mamabolo

I, **Masenyani Levy Baloyi** am doing research under the supervision of **Professor HM van der Merwe**, a Professor in the Department of College of Education towards a Doctoral Degree in Education at the University of South Africa. We have funding from the University of South Africa for a Doctoral Degree studies.

We request for your approval to conduct a research at Lephalale TVET College in a study entitled the management of student retention and achievement in Technical and Vocational Education and Training (TVET) Colleges in Limpopo Province. The aim of the study is to explore factors that influence some students to remain studying at Technical and Vocational Education and Training (TVET) Colleges whilst others dropout before completing their studies. Lephalale College has been selected because it is a merger institution from the previous Technical Colleges that has employees with rich experience in the management of students in both Business and Engineering Campuses at site.

This study on student retention and achievement will entail interviews with four employees, namely Campus Manager, Student Support Manager, Enrolment Manager and Lecturer, and collect data from the full time

Appendix C:

LETTER OF REQUEST FOR PERMISSION TO CONDUCT
RESEARCH AT LEPHALALE TVET COLLEGE

TITLE OF THIS RESEARCH:

THE MANAGEMENT OF STUDENT RETENTION AND
ACHIEVEMENT IN TECHNICAL AND VOCATIONAL
EDUCATION AND TRAINING COLLEGES IN LIMPOPO
PROVINCE

Date: 25 May 2017

Mr LJ Mamabolo
The College Principal
Lephalale TVET College
Corner Nelson Mandela Drive and Ngoako Ramathlodi Street
Lephalale

Telephone Number: (B): 014 763 2252 (M): 072 635 3248
Email address: principal@leptvetcol.edu.za

Dear Mr LJ Mamabolo

I, **Masenyani Levy Baloyi** am doing research under the supervision of **Professor HM van der Merwe**, a Professor in the Department of College of Education towards a Doctoral Degree in Education at the University of South Africa. We have funding from the University of South Africa for a Doctoral Degree studies.

We request for your approval to conduct a research at Lephalale TVET College in a study entitled the management of student retention and achievement in Technical and Vocational Education and Training (TVET) Colleges in Limpopo Province. The aim of the study is to explore factors that influence some students to remain studying at Technical and Vocational Education and Training (TVET) Colleges whilst others dropout before completing their studies. Lephalale College has been selected because it is a merger institution from the previous Technical Colleges that has employees with rich experience in the management of students in both Business and Engineering Campuses at site.

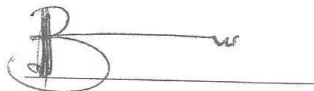
This study on student retention and achievement will entail interviews with four employees, namely Campus Manager, Student Support Manager, Enrolment Manager and Lecturer, and collect data from the full time

students through the use of questionnaires from your TVET College. The names of the employees and students involved in this study will not be revealed and pseudo-names will be used. The participants will be informed that participating in this study is voluntary and that they are free to withdraw at any time during data collection.

The findings from this investigation may form the basis of improving student retention and achievement in the TVET College sector which can add value to the TVET College recruitment and student support strategies. Although no potential risks are anticipated both participants and respondents shall be requested to spend their time in participating in this study. There will be no reimbursement or any incentives for participation in the research.

A summary of the findings of this research shall be provided to the Principals/CEOs and employees of this College. The results of this study shall be used for academic purposes only, may be published in an academic journal and the findings shall be available on request.

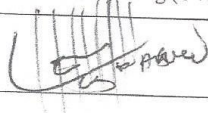
Yours sincerely

Signature: - 

Baloyi ML (Mr) _____

Researcher: - _____

.....
Kindly complete (mark X) on the relevant block and return this portion confirming the approval or disapproval to my request to involve the sampled participants from your College.

I, <u>MATHEBOLA L</u> Lephale TVET College's Principal/CEO	Approved <input checked="" type="checkbox"/>	Disapproved <input type="checkbox"/>
that the above application to conduct the study on management of student retention and achievement in Technical and Vocational Education and Training (TVET) Colleges in Limpopo Province at this TVET College.		
Signature: 	Date: <u>31-07-2017</u>	

Appendix C:

LETTER OF REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT LETABA TVET COLLEGE

TITLE OF THIS RESEARCH:

THE MANAGEMENT OF STUDENT RETENTION AND ACHIEVEMENT IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING COLLEGES IN LIMPOPO PROVINCE

Date: 25 May 2017

Mr PP Mashele
The College Principal
Letaba TVET College
1 Claude Wheatly Street
TZANEEN

0850

Telephone Number: (B): 015 307 5440 (M): 076 798 0533

Email address: mashelepp@letcol.co.za

Dear Mr PP Mashele

I, **Masenyani Levy Baloyi** am doing research under the supervision of **Professor HM van der Merwe**, a Professor in the Department of College of Education towards a Doctoral Degree in Education at the University of South Africa. We have funding from the University of South Africa for a Doctoral Degree studies.

We request for your approval to conduct a research at Letaba TVET College in a study entitled the management of student retention and achievement in Technical and Vocational Education and Training (TVET) Colleges in Limpopo Province. The aim of the study is to explore factors that influence some students to remain studying at Technical and Vocational Education and Training (TVET) Colleges whilst others dropout before completing their studies. Letaba College has been selected because it is a merger institution from the previous Technical Colleges that has employees with rich experience in the management of students in both Business and Engineering Campuses at different geographical sites.

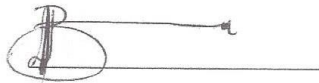
This study on student retention and achievement will entail interviews with four employees, namely Campus Manager, Student Support Manager, Enrolment Manager and Lecturer, and collect data from the full time students through the use of questionnaires from your TVET College. The names of the employees and students involved in this study will not be revealed and pseudo-names will be used. The participants will be informed that participating in this study is voluntary and that they are free to withdraw at any time during data collection.

The findings from this investigation may form the basis of improving student retention and achievement in the TVET College sector which can add value to the TVET College recruitment and student support strategies. Although no potential risks are anticipated both participants and respondents shall be requested to spend their time in participating in this study. There will be no reimbursement or any incentives for participation in the research.

A summary of the findings of this research shall be provided to the Principals/CEOs and employees of this College. The results of this study shall be used for academic purposes only, may be published in an academic journal and the findings shall be available on request.

Yours sincerely

Signature: -



Baloyi ML (Mr)

Researcher: - Baloyi ML (Mr)

Kindly complete (mark X) on the relevant block and return this portion confirming the approval or disapproval to my request to involve the sampled participants from your College.

I, <u>MASHOLE P-P</u> Letaba TVET College's Principal/CEO	Approved	Disapproved
that the above application to conduct the study on management of student retention and achievement in Technical and Vocational Education and Training (TVET) Colleges in Limpopo Province at this TVET College.		
Signature: <u>Mashole</u>	Date: <u>2017/07/31</u>	

Appendix C:

LETTER OF REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT VHEMBE TVET COLLEGE

TITLE OF THIS RESEARCH:

THE MANAGEMENT OF STUDENT RETENTION AND ACHIEVEMENT IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING COLLEGES IN LIMPOPO PROVINCE

Date: 25 May 2017

Ms BH Hlekane
The College Principal
Vhembe TVET College
203 Sibasa Unit A
MAKWARELA
0970

Telephone Number: (B): 015 963 3317 (M): 071 632 3115/ 084 503 5655

Email address: basani.hlekane@gmail.com

Dear Ms BH Hlekane

I, **Masenyani Levy Baloyi** am doing research under the supervision of **Professor HM van der Merwe**, a Professor in the Department of College of Education towards a Doctoral Degree in Education at the University of South Africa. We have funding from the University of South Africa for a Doctoral Degree studies.

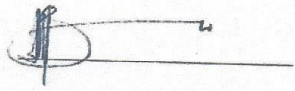
We request for your approval to conduct a research at Vhembe TVET College in a study entitled the management of student retention and achievement in Technical and Vocational Education and Training (TVET) Colleges in Limpopo Province. The aim of the study is to explore factors that influence some students to remain studying at Technical and Vocational Education and Training (TVET) Colleges whilst others dropout before completing their studies. Vhembe College has been selected because it is a merger institution from the previous Technical Colleges that has employees with rich experience in the management of students in both Business and Engineering Campuses at different geographical sites.

This study on student retention and achievement will entail interviews with four employees, namely Campus Manager, Student Support Manager, Enrolment Manager and Lecturer, and collect data from the full time students through the use of questionnaires from your TVET College. The names of the employees and students involved in this study will not be revealed and pseudo-names will be used. The participants will be informed that participating in this study is voluntary and that they are free to withdraw at any time during data collection.

The findings from this investigation may form the basis of improving student retention and achievement in the TVET College sector which can add value to the TVET College recruitment and student support strategies. Although no potential risks are anticipated both participants and respondents shall be requested to spend their time in participating in this study. There will be no reimbursement or any incentives for participation in the research.

A summary of the findings of this research shall be provided to the Principals/CEOs and employees of this College. The results of this study shall be used for academic purposes only, may be published in an academic journal and the findings shall be available on request.

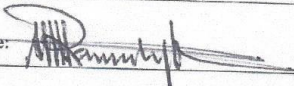
Yours sincerely

Signature: - 

Baloyi ML (Mr) _____

Researcher: - Baloyi ML (Mr)

.....
 Kindly complete (mark X) on the relevant block and return this portion confirming the approval or disapproval to my request to involve the sampled participants from your College.

I, <u>HLEKANE BR</u> Vhembe TVET College's Principal/CEO	Approved	<input checked="" type="checkbox"/> Disapproved
that the above application to conduct the study on management of student retention and achievement in Technical and Vocational Education and Training (TVET) Colleges in Limpopo Province at this TVET College.		
Signature: 	Date: <u>14/06/2017</u>	

Appendix C:

LETTER OF REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT WATERBERG TVET COLLEGE

TITLE OF THIS RESEARCH:

THE MANAGEMENT OF STUDENT RETENTION AND ACHIEVEMENT IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING COLLEGES IN LIMPOPO PROVINCE

Date: 25 May 2017

Ms SL Lekoloane

The College Principal
Waterberg TVET College
20 Simmentale Street
MOKOPANE

0600

Telephone Number: (B): 015 491 8581/8602 (M): 076 870 2146

Email address: ceo@waterbergcollege.co.za

Dear Ms SL Lekoloane

I, **Masenyani Levy Baloyi** am doing research under the supervision of **Professor HM van der Merwe**, a Professor in the Department of College of Education towards a Doctoral Degree in Education at the University of South Africa. We have funding from the University of South Africa for a Doctoral Degree studies.

We request for your approval to conduct a research at Waterberg TVET College in a study entitled the management of student retention and achievement in Technical and Vocational Education and Training (TVET) Colleges in Limpopo Province. The aim of the study is to explore factors that influence some students to remain studying at Technical and Vocational Education and Training (TVET) Colleges whilst others dropout before completing their studies. Waterberg College has been selected because it is a merger institution from the previous Technical Colleges that has employees with rich experience in the management of students in both Business and Engineering Campuses at different geographical sites.

This study on student retention and achievement will entail interviews with four employees, namely Campus Manager, Student Support Manager, Enrolment Manager and Lecturer, and collect data from the full time students through the use of questionnaires from your TVET College. The names of the employees and

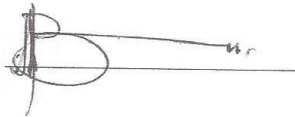
students involved in this study will not be revealed and pseudo-names will be used. The participants will be informed that participating in this study is voluntary and that they are free to withdraw at any time during data collection.

The findings from this investigation may form the basis of improving student retention and achievement in the TVET College sector which can add value to the TVET College recruitment and student support strategies. Although no potential risks are anticipated both participants and respondents shall be requested to spend their time in participating in this study. There will be no reimbursement or any incentives for participation in the research.

A summary of the findings of this research shall be provided to the Principals/CEOs and employees of this College. The results of this study shall be used for academic purposes only, may be published in an academic journal and the findings shall be available on request.

Yours sincerely

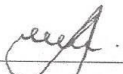
Signature: -



Baloyi ML (Mr)

Researcher: -

.....
Kindly complete (mark X) on the relevant block and return this portion confirming the approval or disapproval to my request to involve the sampled participants from your College.

I, <u>LEKOLAME S.C.</u> Waterberg TVET College's Principal/CEO		<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Disapproved
that the above application to conduct the study on management of student retention and achievement in Technical and Vocational Education and Training (TVET) Colleges in Limpopo Province at this TVET College.			
Signature: 		Date: <u>31/07/2017</u>	

Appendix C3: A LETTER OF CONSENT FOR PARTICIPATION IN AN INTERVIEW

Dear Participant

This letter is an invitation to consider participating in a study I, Levy Baloyi am conducting as part of my research as a doctoral student entitled the management of student retention and achievement in Technical and Vocational Education and Training Colleges in Limpopo Province at the University of South Africa. Permission for this study has been given by Capricorn TVET College and the Ethics Committee of the College of Education, UNISA. I have purposefully identified you as a possible participant because of your valuable experience and expertise pertaining student retention and achievement in the TVET College sector.

I would like to provide you with more information about this research project and what your involvement would entail if you should agree to take part. The importance of determining factors that influence students' persistence in post-school education is substantial and well documented in various sources because of its impact on social and economic status of the country. In this interview I would like to have your honest views and opinions on factors influencing student retention and achievement in TVET Colleges.

Your participation in this study is voluntary. It will involve an interview of approximately sixty minutes in length to take place in a mutually agreed upon location at a time convenient to you. You may decline to answer any of the interview questions if you so wish. Furthermore, you may decide to withdraw from this study at any time without any negative consequences.

With your kind permission, the interview will be audio-recorded to facilitate collection of accurate information and later transcribed for analysis.

Shortly after the transcription has been completed, I will send you a copy of the transcript to give you an opportunity to confirm the accuracy of our conversation and to add or to clarify any points. All information you provide will be considered completely confidential. Your name will not appear in any publication resulting from this study and any identifiable information will be omitted from the report. However, with your permission, anonymous quotations may be used. Data collected during this study will be retained on a password protected computer for five years in the researcher's lockable storage.

The benefits of this study are to improve student retention and achievement in the TVET College sector and add value to the TVET College recruitment and student support strategies.

There are no known or anticipated risks to you as a participant in this study. You will not be reimbursed or receive any incentives for your participation in the research. If you would like to be informed of the final research findings, and/or if you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please contact me, Levy Baloyi on 076 287 3368 or 015 781 5721 or email at levyb@lantic.net. The findings are accessible for the period of five years.

I look forward to speaking to you and thank you in advance for your assistance in this project. If you accept my invitation to participate, I will request you to sign the consent form.

Yours sincerely

Baloyi ML
 Researcher's name (print)



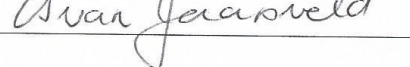
Researcher's signature:

25 May 2017
 Date:

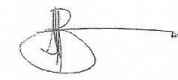
CONSENT FORM

I have read the information presented in the information letter about the study in education. I have had the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and add any additional details I wanted. I am aware that I have the option of allowing my interview to be audio recorded to ensure an accurate recording of my responses. I am also aware that excerpts from the interview may be included in publications to come from this research, with the understanding that the quotations will be anonymous. I was informed that I may withdraw my consent at any time without penalty by advising the researcher. With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

Participant's Name (Please print): CS van Jaarsveld

Participant's Signature: 

Researcher's Name (Please print): Baloyi ML

Researcher's Signature: 

Date: _____

Contact detail 071 271 2567.

Appendix C3: A LETTER OF CONSENT FOR PARTICIPATION IN AN INTERVIEW

Dear Participant

This letter is an invitation to consider participating in a study I, Levy Baloyi am conducting as part of my research as a doctoral student entitled the management of student retention and achievement in Technical and Vocational Education and Training Colleges in Limpopo Province at the University of South Africa. Permission for this study has been given by Capricorn TVET College and the Ethics Committee of the College of Education, UNISA. I have purposefully identified you as a possible participant because of your valuable experience and expertise pertaining student retention and achievement in the TVET College sector.

I would like to provide you with more information about this research project and what your involvement would entail if you should agree to take part. The importance of determining factors that influence students' persistence in post-school education is substantial and well documented in various sources because of its impact on social and economic status of the country. In this interview I would like to have your honest views and opinions on factors influencing student retention and achievement in TVET Colleges.

Your participation in this study is voluntary. It will involve an interview of approximately sixty minutes in length to take place in a mutually agreed upon location at a time convenient to you. You may decline to answer any of the interview questions if you so wish. Furthermore, you may decide to withdraw from this study at any time without any negative consequences.

With your kind permission, the interview will be audio-recorded to facilitate collection of accurate information and later transcribed for analysis.

Shortly after the transcription has been completed, I will send you a copy of the transcript to give you an opportunity to confirm the accuracy of our conversation and to add or to clarify any points. All information you provide will be considered completely confidential. Your name will not appear in any publication resulting from this study and any identifiable information will be omitted from the report. However, with your permission, anonymous quotations may be used. Data collected during this study will be retained on a password protected computer for five years in the researcher's lockable storage.

The benefits of this study are to improve student retention and achievement in the TVET College sector and add value to the TVET College recruitment and student support strategies.

There are no known or anticipated risks to you as a participant in this study. You will not be reimbursed or receive any incentives for your participation in the research. If you would like to be informed of the final research findings, and/or if you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please contact me, Levy Baloyi on 076 287 3368 or 015 781 5721 or email at levyvb@lantic.net. The findings are accessible for the period of five years.

I look forward to speaking to you and thank you in advance for your assistance in this project. If you accept my invitation to participate, I will request you to sign the consent form.

Yours sincerely

Baloyi ML
Researcher's name (print)



Researcher's signature:

25 May 2017
Date:

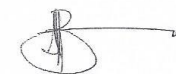
CONSENT FORM

I have read the information presented in the information letter about the study in education. I have had the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and add any additional details I wanted. I am aware that I have the option of allowing my interview to be audio recorded to ensure an accurate recording of my responses. I am also aware that excerpts from the interview may be included in publications to come from this research, with the understanding that the quotations will be anonymous. I was informed that I may withdraw my consent at any time without penalty by advising the researcher. With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

Participant's Name (Please print): F. NEPHAWE

Participant's Signature: 

Researcher's Name (Please print): Baloyi ML

Researcher's Signature: 

Date: _____

Appendix C3: A LETTER OF CONSENT FOR PARTICIPATION IN AN INTERVIEW

Dear Participant

This letter is an invitation to consider participating in a study I, Levy Baloyi am conducting as part of my research as a doctoral student entitled the management of student retention and achievement in Technical and Vocational Education and Training Colleges in Limpopo Province at the University of South Africa. Permission for this study has been given by Capricorn TVET College and the Ethics Committee of the College of Education, UNISA. I have purposefully identified you as a possible participant because of your valuable experience and expertise pertaining student retention and achievement in the TVET College sector.

I would like to provide you with more information about this research project and what your involvement would entail if you should agree to take part. The importance of determining factors that influence students' persistence in post-school education is substantial and well documented in various sources because of its impact on social and economic status of the country. In this interview I would like to have your honest views and opinions on factors influencing student retention and achievement in TVET Colleges.

Your participation in this study is voluntary. It will involve an interview of approximately sixty minutes in length to take place in a mutually agreed upon location at a time convenient to you. You may decline to answer any of the interview questions if you so wish. Furthermore, you may decide to withdraw from this study at any time without any negative consequences.

With your kind permission, the interview will be audio-recorded to facilitate collection of accurate information and later transcribed for analysis.

Shortly after the transcription has been completed, I will send you a copy of the transcript to give you an opportunity to confirm the accuracy of our conversation and to add or to clarify any points. All information you provide will be considered completely confidential. Your name will not appear in any publication resulting from this study and any identifiable information will be omitted from the report. However, with your permission, anonymous quotations may be used. Data collected during this study will be retained on a password protected computer for five years in the researcher's lockable storage.

The benefits of this study are to improve student retention and achievement in the TVET College sector and add value to the TVET College recruitment and student support strategies.

There are no known or anticipated risks to you as a participant in this study. You will not be reimbursed or receive any incentives for your participation in the research. If you would like to be informed of the final research findings, and/or if you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please contact me, Levy Baloyi on 076 287 3368 or 015 781 5721 or email at levybaloyi@lantic.net. The findings are accessible for the period of five years.

I look forward to speaking to you and thank you in advance for your assistance in this project. If you accept my invitation to participate, I will request you to sign the consent form.

Yours sincerely

Baloyi ML
 Researcher's name (print)



Researcher's signature:

25 May 2017
 Date:

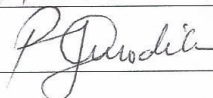
CONSENT FORM

I have read the information presented in the information letter about the study in education. I have had the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and add any additional details I wanted. I am aware that I have the option of allowing my interview to be audio recorded to ensure an accurate recording of my responses. I am also aware that excerpts from the interview may be included in publications to come from this research, with the understanding that the quotations will be anonymous. I was informed that I may withdraw my consent at any time without penalty by advising the researcher. With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

Participant's Name (Please print):

MODIBA P. J.

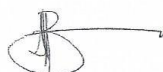
Participant's Signature:



Researcher's Name (Please print):

Baloyi ML

Researcher's Signature:



Date:

Appendix I:

A LETTER OF CONSENT FOR STUDENT RESPONDENTS

Date:

TITLE OF THIS RESEARCH: The management of student retention and achievement in Technical and Vocational Education and Training Colleges in Limpopo Province.

DEAR PROSPECTIVE PARTICIPANT

My name is Levy Baloyi and I am doing research towards a Doctoral Degree in Education under the supervision of Professor HM van der Merwe, a Professor in the Department of College Education at the University of South Africa. I have funding from the University of South Africa for Doctoral Degree studies.

I am inviting you to participate in this study entitled the management of student retention and achievement in Technical and Vocational Education and Training (TVET) Colleges in Limpopo Province. This study is expected to collect important information that has potential to influence some students to remain studying at Technical and Vocational Education and Training (TVET) Colleges whilst others dropout before completing their studies. The benefits of this study are to improve student retention and achievement in the TVET College sector and add value to the TVET College recruitment and student support strategies.

You are invited because you are one of the full time students who is 18 years or above 18 years of age and have valuable experience regarding this TVET College's registration, student retention and achievement processes that can assist in responding to the questions asked this study. I obtained your contact details based on the class registers from this TVET College authority who gave me permission to collect information through the use of a questionnaire from approximately one hundred students at this institution as I conduct this study. The study involves a questionnaire wherein you will be asked to answer questions on your views regarding factors you considered to be important when choosing to enrol at this TVET College. Answering this questionnaire will not take you longer than twenty minutes to complete.

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason. Also note that there will be no cost to the participants, financial reimbursement or any incentives for participation in the research and no potential risks are anticipated although you will spend your own time participating in this study.

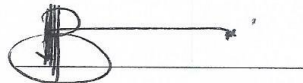
Your name will not be recorded anywhere and no one will be able to connect you to the answers you give. Your answers will be given a code number or a pseudonym and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings.

Hard copies of your answers will be stored by the researcher for a period of five years in a locked safe/filing cabinet at the researchers' place for future research or academic purposes. Electronic information will be stored on the researcher's password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. All hard copy materials used for data collection in this study shall be shredded whereas the electronic copies will be permanently deleted from the hard drive of the computer through the use of a relevant software programme.

This study has received written approval from the College of Education Research Ethics Review Committee of the UNISA. A copy of the approval letter can be obtained from the researcher if you so wish. If you would like to be informed of the final research findings, please contact me, Levy Baloyi on 076 287 3368 or email levyvb@lantic.net. The findings of this study shall be accessible for the academic purpose only approximately six months after the collection of data. Should you require any further information or have concerns about the way in which the research has been conducted or want to contact the researcher about any aspect of this study, please contact me on 076 287 3368 or 015 781 5721 or email levyvb@lantic.net.

Thank you for taking time to read this information sheet and for participating in this study.

Signature:-



Baloyi ML (Mr)

CONSENT TO PARTICIPATE IN THIS STUDY (Return slip)

I, MKHABELA M (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).


I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the questionnaire.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname (please print)


MKHABELA MASHUDU


Participant Signature

26/09/2017
Date

Researcher's Name & Surname (please print)

Baloyi ML


Researcher's signature

Date

Appendix J: QUESTIONNAIRE: CRITERIA USED TO SELECT A PARTICULAR TVET COLLEGE

Respondent number: _____

For office use only

V0

Dear respondent

Listed below are some of the aspects which potential students consider when choosing a Technical and Vocational Education and Training (TVET) College over the other when **enrolling for certain qualifications/courses/subjects**. Please spend few minutes of your time if you can, to complete this questionnaire. Note that this questionnaire shall remain **anonymous**; your answers absolutely confidential, and will be used for this research purposes only. Please indicate your choice by crossing over the number of your choice; *example*

1	X	3	4
---	---	---	---

This questionnaire is divided into four (4) parts arranged as follows:

Part A contains the general information regarding the socio-demographic details of respondents, **Part B** deals with the provision of valuable information when recruiting potential students enrol, **Part C** determines the opinions and experiences of other people when making college choices, and **Part D** focuses on the main reasons for students to continue studying at this TVET College until they complete their qualifications.

INFORMED CONSENT:

All the information in this questionnaire will remain absolutely confidential, and will be used for research purposes only.

Thank you very much for your co-operation!

Signature

Place

Date

PART A: GENERAL SOCIO-DEMOGRAPHIC INFORMATION

For office use only

V1

1. Indicate your gender	Male	Female	V1:1
	1	2	

2. Indicate your age (write number) in years	Years	V1:2
	<input type="text"/>	

3. Indicate your ethnic background	Black	Coloured	Indian	White	Other	V1:3
	1	2	3	4	5	

If other, please specify!

4. Indicate your mother tongue	Afrikaans	English	N-Sotho	S-Sotho	Ndebele	Tswana	Swazi	Xitsonga	Venda	Xhosa	Zulu	Other	V1:4
	1	2	3	4	5	6	7	8	9	10	11	12	
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

If other, please specify!

5. What was your grade twelve/high school average percentage mark or symbol (for all subjects combined)?	59% or less (Level 4)	60-69% (Level 5)	70-79% (Level 6)	80% or above (Level 7)	V1:5
	1 (D)	2 (C)	3 (B)	4 (A)	

If other or you do not remember, please indicate explain

6. What was the entry average percentage mark required for this course/qualification you registered for?	59% or less (Level 4)	60-69% (Level 5)	70-79% (Level 6)	80% or above (Level 7)	V1:6
	1 (D)	2 (C)	3 (B)	4 (A)	

If other or you do not remember, please indicate explain

Please indicate if specific subjects percentage mark (e.g. English, Mathematics, Science etc.) was the entry requirement!	Subjects	Symbol
	1.	
	2.	
	3.	
	4.	

7. Indicate your mode/type of registration	Fulltime	Part-time	V1:7
	1	2	

8. Indicate whether this is the first time you attend this level/grade you currently enrolled for or not	First attempt	Repeater	V1:8
	1	2	

9. Indicate the course/ programme/qualification you are currently enrolled for	NCV Course	N Course	V1:9
	1	2	

10. Indicate the field of study you enrolled for	Business	Engineering	V1:10
	Studies	Studies	
	1	2	

11. Indicate the year/trimester/semester you are currently enrolled for!	NCV (academic year)			N-Course (Semester)		N-Course (Trimester)			V1:11
	1	2	3	1	2	1	2	3	

12. Indicate the level/grade you are currently enrolled for!	NCV Level			N-Course Level			V1:12	
	2	3	4	1	2	3		4

13. Indicate the distance (in kilometres) this TVET/Campus is from your permanent home (wherein your family is)	10 or less KM	11-30KM	31-80KM	More than 80KM	V1:13
	1	2	3	4	

14. Indicate where you stay while studying at this TVET College	At permanent home	At student resident away from home	V1:14
	1	2	

15. Indicate if you were born and grew up as a permanent resident of Limpopo Province or not	Permanent resident	Not a permanent resident	V1:15
	1	2	

16. Indicate your father / male guardians' highest level of education obtained	Primary (Grade 7/N2)	Secondary (Grade 12/N3)	Post-school (Diploma/Degree)	Other	V1:16
	1	2	3	5	

If other, please specify!

17. Indicate your mother/ female guardian's highest level of education obtained	Primary (Grade 7/N2)	Secondary (Grade 12/N3)	Post-school (Diploma/Degree)	Other	V1:17
	1	2	3	5	

If other, please specify!

18. Indicate your father/male guardian's source of income	Government employee	Private sector employee	Self-employed	Pensioner	Other	V1:18
	1	2	3	4	5	

If other, please specify!

19. Indicate your mother/female guardian's income	Government employee	Private sector employee	Self-employed	Pensioner	Other	V1:19
	1	2	3	4	5	

If other, please specify!

PART B: REPUTATION AND IMAGE OF TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING COLLEGE

v2

<p>Part B: This TVET College provides valuable information when recruiting potential students for enrolment.</p> <p>Cross over either Not important = 1 or Of little importance = 2 or Important = 3 or Very important = 4 or Extremely important = 5 to indicate your honest opinion as to how important each of the following statements were to you when choosing to enrol at this TVET College:-</p>							
Influence of important information sources:							
	1. Not important	2. Of little importance	3. Important	4. Very important	5. Extremely important	V2:	
1. printed media (such as newspapers/ magazines)	1	2	3	4	5	V2:	1
2. advertisement on radio stations	1	2	3	4	5	V2:	2
3. advertisement on TV	1	2	3	4	5	V2:	3
4. school visiting college/campus during open days	1	2	3	4	5	V2:	4
5. TVET College website	1	2	3	4	5	V2:	5
6. TVET College publications (catalogs, brochures, etc.)	1	2	3	4	5	V2:	6
7. visits by admission TVET College staff at my high school school	1	2	3	4	5	V2:	7
8. electronic (website/internet) communication with the TVET College	1	2	3	4	5	V2:	8

9. our school visits to this Campus	1	2	3	4	5	V2:	9
10. on-campus interview with admission staff	1	2	3	4	5	V2:	10
11. quality of academic facilities (library, laboratories, computers, etc.)	1	2	3	4	5	V2:	11
12. on campus student residence/housing/hostels	1	2	3	4	5	V2:	12
13. cleanliness/neatness of College/Campus premises	1	2	3	4	5	V2:	13
14. safety and security at this TVET College/Campus	1	2	3	4	5	V2:	14
15. surroundings (neighbourhood, town or city)	1	2	3	4	5	V2:	15
16. this TVET College is located where employment opportunities are easily accessible	1	2	3	4	5	V2:	16
17. ease of getting home from this College	1	2	3	4	5	V2:	17
18. this is the only TVET College that provides my academic needs	1	2	3	4	5	V2:	18

if other elements are not in this list, please write them below:

It will be appreciated if you can briefly explain what else should be done to increase or improve provision of relevant information to student to this TVET College. If you need more space be free to use extra pages.

PART C: OPINIONS AND EXPERIENCES ON TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING COLLEGE

V3

<p>Part C: when choosing to enroll at a post-school learning institution some students consider other people's opinions and experiences about the importance of studying at a particular institution.</p> <p>Cross over either Not important = 1 or Slightly important = 2 or neutral = 3 or Moderately important = 4 or Very important = 5 to indicate your honest views on the following statements you considered when choosing this TVET College:-</p>							
	1. Not important	2. Slightly important	3. Neutral	4. Moderately important	5. Very important	For office use only	
Aspects/factors considered to be important:							
1. programme / course I intended to study at TVET College	1	2	3	4	5	V3:	1
2. overall employer perception of the TVET College's quality of education	1	2	3	4	5	V3:	2
3. emphasis on the importance of technical and vocational education	1	2	3	4	5	V3:	3
4. easy access to faculty	1	2	3	4	5	V3:	4

5. affordable cost to my family	1	2	3	4	5	V3:	5
6. available financial assistance (bursary or loans or scholarships) opportunities	1	2	3	4	5	V3:	6
7. motivation from my previous high school teacher(s)	1	2	3	4	5	V3:	7
8. advice from family members/guardians/friends who studied at a TVET College	1	2	3	4	5	V3:	8
9. potential well-paying jobs after completing this course/programme	1	2	3	4	5	V3:	9
10. available employment opportunities to qualifying students	1	2	3	4	5	V3:	10
11. government encouraged students to study for this qualification/course	1	2	3	4	5	V3:	11
12. qualification/course that matches my expectations	1	2	3	4	5	V3:	12
13. pre-college and college entrance preparatory programmes	1	2	3	4	5	V3:	13
14. social life status/extracurricular activities (debate, drama, music, sports etc.)	1	2	3	4	5	V3:	14
15. alternative entry requirements (various selection and admission requirements)	1	2	3	4	5	V3:	15
16. better option for those whose admissions are rejected by the universities	1	2	3	4	5	V3:	16
17. if other factors are not in this list, please write them below:							

It will be appreciated if you can briefly explain what else should be done to increase or improve student access to this TVET College. If you need more space be free to use extra pages.

PART D: PREDICTORS OF STUDENT RETENTION AND ACHIEVEMENT

PART D1: STUDENTS PERFORMANCES AT TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING COLLEGE

V4

<p>Part D1: The main reasons for students to continue studying at this TVET College until they complete their qualifications include the following.</p> <p>Please indicate your honest opinion on how important is each of the factors for supporting your academic persistence and achievement.</p> <p>Not important = 1 or Slightly important = 2 or neutral = 3 or Moderately important = 4 or Very important = 5 to indicate your honest opinion on the effectiveness/quality of student support services/programme/activities provided by TVET College:-</p>								
Support considered for increasing academic success??	1. Not important	2. Slightly important	3. Neutral	4. Moderately important	5. Very important	For office use only		
1. induction/orientation programme that prepares students for the College environment	1	2	3	4	5	V4:	1	
2. course/qualification that prepares me for employment opportunities	1	2	3	4	5	V4:	2	
3. course/ qualification content that matches students 'expectations	1	2	3	4	5	V4:	3	
4. relevant career guidance offered immediately after registration	1	2	3	4	5	V4:	4	

5. effective academic support activities	1	2	3	4	5	V4:	5
6. conducive campus climate for diverse students (i.e. student from different background)	1	2	3	4	5	V4:	6
7. friendly administrative and academic staff						V4:	7
8. flexible mode of study (afternoon, evening, Saturday classes)	1	2	3	4	5	V4:	8
9. links/functional partnerships with the industry/business	1	2	3	4	5	V4:	9
10. available pre-college and college entrance requirements to secondary school students	1	2	3	4	5	V4:	10
11. schools and TVET Colleges jointly prepare students for the College education	1	2	3	4	5	V4:	11
12. college/campus visit programme as a factor in students' enrolment decision	1	2	3	4	5	V4:	12
13. provision of ongoing college support	1	2	3	4	5	V4:	13
14. provision of a bridging programme for applicants with minimum entry requirements	1	2	3	4	5	V4:	14
15. adequate knowledge of subject matter	1	2	3	4	5	V4:	15
16. inviting potential employers to speak to students at the campus	1	2	3	4	5	V4:	16

if other factors are not in this list, please write them below:

It will be appreciated if you can briefly explain on how the College can further support students to remain at this College until completion of the qualifications. If you need more space be free to use extra pages.

Part D2: MAIN FACTORS INFLUENCING STUDENT PERSISTENCE AT OR WITHDRAWAL FROM THE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING COLLEGE

V5

<p>Part D2: Please indicate your honest opinion on how faculty accessibility, demographic factors, sense of belonging and student motivation influence your academic persistence and achievement</p> <p>Mark/Cross over Not at all influential = 1 or Slightly influential = 2 or Somewhat influential = 3 or Very influential = 4 or Extremely influential = 5 to indicate your honest response to the following statements:-</p> <p>Factors influencing students to stay at or withdraw from this TVET College</p>	1. Not at all influential	2. Slightly influential	3. Somewhat influential	4. Very influential	5. Strongly influential	V5:	1
	1. my academic performance encourage me to focus on studying hard	1	2	3	4		

2. social involvement motivates me to continue studying at this college	1	2	3	4	5	V5:	2
3. expectations differed from the recruitment materials	1	2	3	4	5	V5:	3
4. learning experiences e.g. wrong or second choice of course selection							4
5. insufficient effective student orientation and induction	1	2	3	4	5	V5:	5
6. quality of teaching and learning that integrate study skills	1	2	3	4	5	V5:	6
7. regular feedback on students' assessments	1	2	3	4	5	V5:	7
8. constructive feedback on students' academic progress	1	2	3	4	5	V5:	8
9. outdated facilitation/teaching methodology (inadequate of/minimum student participation)	1	2	3	4	5	V5:	9
10. monotonous and boring teaching approaches	1	2	3	4	5	V5:	10
11. assistance with language policy factor (good command medium instruction for teaching and learning)	1	2	3	4	5	V5:	11
12. other family responsibilities after school	1	2	3	4	5	V5:	12
13. inadequate of conducive study facilities and living space	1	2	3	4	5	V5:	13
14. adequate student support services facilities	1	2	3	4	5	V5:	14
15. effective career guidance, academic support and advice services	1	2	3	4	5	V5:	15
16. inadequate supplementary learning activities (additional lessons, peer tutoring)	1	2	3	4	5	V5:	16
17. poor quality of teaching and learning materials/ lecture handouts	1	2	3	4	5	V5:	17
18. lecturer absenteeism	1	2	3	4	5	V5:	18
19. inadequate student motivation	1	2	3	4	5	V5:	19
20. poor class attendance by students	1	2	3	4	5	V5:	20
21. lecturers coming late or leaving classes before the end of teaching sessions	1	2	3	4	5	V5:	21

if other factors are not in this list, please write them below:

It will be appreciated if you can briefly explain what should be done to ensure that available student retention and success programmes best encourage students to remain at this College until completion of the qualifications. If you need more space be free to use extra pages.

YOU HAVE REACHED THE LAST PAGE OF THIS QUESTIONNAIRE

ONCE AGAIN THANK YOU VERY MUCH FOR YOUR COOPERATION!

