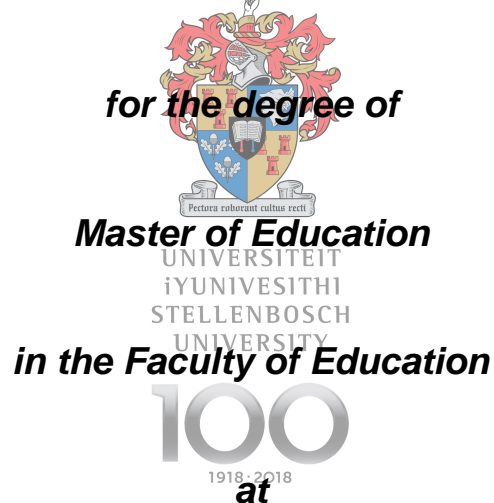


ADDRESSING THE NEEDS OF COMMUTER STUDENTS: AN EVALUATION OF THE AMAMATIES HUB AT STELLENBOSCH UNIVERSITY

by

Benita van Zyl

Thesis presented in partial fulfilment of the requirements



Stellenbosch University

Supervisor: Prof M. Fourie-Malherbe

Co-supervisor: Dr M. Dunn-Coetzee

March 2018

DECLARATION

By submitting this dissertation electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

.....
Signature

22 February 2018

.....
Date

“We have long known that students living on-campus enjoy larger and more varied benefits of college attendance than do commuting students. How can the most educationally potent characteristics of the residential experience (e.g., frequent academic and social interaction among students, contact with faculty members, more opportunities for academic and social involvement with the institution) be made more readily available to students who commute?”

(Terenzini & Pascarella, 1994)

ABSTRACT

Massification of higher education has led to increasing numbers of a diversity of students entering universities. At the same time financial constraints prohibit higher education institutions from providing sufficient student accommodation on campus. This results in growing numbers of commuter students with different needs and challenges.

The residential education (ResEd) and cluster initiative at Stellenbosch University (SU) aim to address the needs of commuter students by providing a physical on-campus space (hub) for commuter students and by granting access for them to common areas in residence dining halls and study areas. The hub and cluster initiative aims to promote commuter student success and to enhance the social interaction among residential and commuter students in the co-curricular environment. It further seeks to create integrated learning communities that are commuter-friendly and promote active and collaborative academic and social activities outside the classroom.

This initiative was implemented in 2008, and has not been evaluated before. This study used program evaluation to gain a better understanding of the cluster initiative and hub, and the extent to which it actually addresses the needs of commuter students. The following outcomes of the Logic Model were evaluated: *to create spaces which would address the basic needs of commuter students (in terms of safety, meals, rest and relaxation); to create opportunities within the cluster for commuter and residence students to participate in learning communities (i.e. attend mentor and/or tutor sessions and form study groups); to make campus life more welcoming by creating spaces and opportunities where diverse commuter and residence students can socialize in the same community; to enhance the academic experience and academic success, especially that of commuter students.*

All the commuter and residential students in the amaMaties cluster during 2014 and 2015 were asked to participate in the study. A self-generated questionnaire was used for an electronic survey among the research participants. The questionnaire was completed by 331 students, of whom 126 were commuter students and 205 were residential students. Some of the findings of the study included that significant

interaction between commuter and residential respondents occurred in the learning community of the hub, and although a gradual improvement of average percentages of commuter students occurred, graduation rates of residential students still exceeded those of commuter students, especially in the case of black and coloured students who live in residences.

This study found that the hub and cluster contributed **firstly** to the positive experience and sense of belonging of commuter students. **Secondly**, it contributed to the spontaneous interaction across race and gender differences among commuter and residential students. **Thirdly**, an unexpected change in behaviour of residential students to open up previously exclusive spaces in residences occurred. **Fourthly**, both commuter and residential students experienced the space as a learning community that enhanced their student experience, and **lastly** the study provides guidelines to student affairs practitioners at other South African universities on how to better integrate commuter and residential students, leading to a stronger sense of belonging among commuter students.

OPSOMMING

Massifikasie van hoër onderwys het gelei tot groter getalle diverse studente wat toegang tot universiteite kry. Terselfdertyd verhoed finansiële beperkings dat hoëronderwysinstellings voldoende studenteverblyf op kampus verskaf. Dit lei tot 'n groeiende getal pendelstudente met verskillende behoeftes en uitdagings.

Die residensiële onderwys (ResEd) en klusterinisiatief van die Universiteit Stellenbosch (US) het ten doel om die behoeftes van pendelstudente aan te spreek deur 'n fisiese kampusruimte (hub) vir pendelstudente daar te stel, en toegang tot gemeenskaplike areas in eetkamers en studielokale vir hulle te verleen. Die hub en klusterinisiatief beoog om die sukses van pendelstudente te bevorder en om die sosiale interaksie tussen residensiële en pendelstudente in die ko-kurrikulêre omgewing te verbeter. Dit het verder ten doel om geïntegreerde leergemeenskappe te skep wat pendelstudentvriendelik is en aktiewe en samewerkende akademiese en sosiale aktiwiteite buite die klaskamer bevorder.

Hierdie inisiatief is in 2008 geïmplementeer, en is nog nie geëvalueer nie. Hierdie studie het progamevaluering gebruik om beter begrip van die klusterinisiatief en hub te kry, en beter te verstaan tot watter mate die inisiatief die behoeftes van pendelstudente aanspreek. Die volgende uitkomst van die 'Logic Model' is geëvalueer: *om ruimtes te skep wat die basiese behoeftes van pendelstudente sal aanspreek (ten opsigte van veiligheid, etes, rus en ontspanning); geleenthede binne die kluster vir pendel- en koshuisstudente te skep om aan leergemeenskappe deel te neem (d.w.s. bywoning van mentor- en / of tutorsessies en die vorming van studiegroepe); om die kampuslewe meer verwelkomend te maak deur ruimtes en geleenthede te skep waar verskillende pendel- en koshuisstudente in dieselfde gemeenskap kan sosialiseer; om die akademiese ervaring en akademiese sukses veral van die pendelstudente te verbeter.*

Al die pendel- en residensiële studente van die amaMaties-kluster gedurende 2014 en 2015 is genooi om deel te neem aan die studie. 'n Selfgegenereerde vraelys is gebruik in 'n elektroniese opname. Die vraelys is voltooi deur 331 studente, van wie 126 pendelstudente was, en 205 residensiële studente was. Sommige van die bevindings

van die studie was, onder andere, dat beduidende interaksie tussen pendel- en residensiële respondente in die leergemeenskap van die hub plaasgevind het. Alhoewel 'n geleidelike verbetering van gemiddelde persentasies van die pendelstudente waargeneem is, het gradueringskoerse van residensiële studente steeds die gradueringskoerse van pendelstudente oortref, veral in die geval van swart en bruin studente wat in koshuise woon en akademies steeds beter vaar as hul eweknieë wat pendel.

Hierdie studie het bevind dat die hub en kluster **eerstens** bygedra het tot die positiewe ervaring en gevoel van behoort van pendelstudente. **Tweedens**, het dit bygedra tot die spontane interaksie tussen pendel- en residensiële studente ongeag ras- en geslagsverskille. **Derdens**, was daar 'n onverwagte verandering in gedrag van residensiële studente om voorheen eksklusiewe ruimtes in koshuise oop te stel vir nie-inwoners. **Vierdens**, het beide pendel- en residensiële studente die ruimte ervaar as 'n leergemeenskap wat hul studente-ervaring verryk, en **laastens** bied die studie riglyne aan studente-praktisyns by ander Suid-Afrikaanse universiteite oor hoe om pendel- en residensiële studente beter te integreer, wat lei tot 'n sterker gevoel van behoort onder pendelstudente.

ACKNOWLEDGEMENTS

I would like to express my sincere appreciation and thanks to the following persons for their respective contributions to this thesis:

Firstly to my **Heavenly Father** for granting me the strength, health, courage and perseverance to complete this challenging research.

My supervisor, **Prof Magda Fourie-Malherbe**, for her continuous support, expert advice, guidance, messages, motivation and friendship through the relentless journey.

Co-Supervisor, **Dr Munita Dunn-Coetzee**, for your positive attitude, encouragement, continuous messages, advice and guidance.

Mr Pieter Kloppers, from the Centre for Student Communities (CSC) for your guidance, conversations, advice and belief in me.

Dr Alten du Plessis, from the Department of Institutional Research and Planning, for your endless assistance with the survey and interpretation and preparation of the data.

Mrs Magda Burger, for the language editing and motivation.

Mrs Connie Park, for attending to the technical aspects of my thesis.

All my **Centre for Student Communities Colleagues** at SU, for your support and encouragement.

The **amaMaties Cluster Students** – thank you for your willingness to participate in the study.

My extended **family and friends** for your motivation, encouragement, continuous support and for understanding when I paid no visits.

My children, **Tinneke and Tiaan** for your love, support, patience, tolerance and understanding when I had to write yet another chapter.

Last, but not least, to my dearest husband, **Christie**, for your unconditional love, daily prayers, patience, tolerance, endless encouragement and for being my greatest supporter ever. Thank you for believing in me. Mission accomplished!

TABLE OF CONTENTS

<i>Declaration</i>	<i>i</i>
<i>Abstract</i>	<i>iii</i>
<i>Opsomming</i>	<i>v</i>
<i>Acknowledgements</i>	<i>vii</i>
<i>Table of contents</i>	<i>viii</i>
<i>List of tables</i>	<i>xiv</i>
<i>List of figures</i>	<i>xvi</i>
<i>List of photos</i>	<i>xviii</i>
Chapter 1	
ORIENTATION TO THE STUDY	1
1.1 BACKGROUND TO THE STUDY	1
1.1.1 Massification of higher education and increase in commuter students	1
1.1.1.1 International perspectives	2
1.1.1.2 National perspectives	5
1.1.1.3 Institutional perspectives	7
1.1.2 The importance of learning communities	9
1.2 PROBLEM STATEMENT	11
1.3 RESEARCH AIM AND OBJECTIVES	11
1.4 RESEARCH PARADIGM, DESIGN AND METHODOLOGY	12
1.4.1 Data collection	13
1.4.2 Data analysis	13
1.5 VALIDATING THE STUDY	14
1.6 DEFINITION OF KEY CONCEPTS	14
1.7 ETHICAL CONSIDERATIONS	15
1.8 SCOPE AND LIMITATIONS OF THE RESEARCH	15
1.9 CONCLUSION	16

Chapter 2**INTERNATIONAL PERSPECTIVES ON STUDENT ACCESS AND SUCCESS WITH SPECIFIC REFERENCE TO COMMUTER STUDENTS.....17**

2.1	INTRODUCTION	17
2.2	MASSIFICATION AS A WORLDWIDE TREND IN HIGHER EDUCATION.....	18
2.3	COMMUTER STUDENTS.....	20
2.3.1	Conceptualization	20
2.3.2	Structural influences	23
2.3.3	Psychosocial influences	25
2.3.4	Commuter student engagement	26
2.3.5	Proximal consequences	27
2.3.6	Distal consequences	30
2.4	LEARNING SPACES FOR COMMUTER STUDENTS	31
2.5	CONCLUSION.....	33

Chapter 3**NATIONAL PERSPECTIVES ON STUDENT ACCESS AND SUCCESS WITH SPECIFIC REFERENCE TO COMMUTER STUDENTS34**

3.1	INTRODUCTION	34
3.2	THE SOUTH AFRICAN HIGHER EDUCATION CONTEXT	34
3.2.1	Student access and participation in apartheid South Africa.....	39
3.2.2	Student access and participation post 1994.....	40
3.2.3	Challenges with regard to student success	45
3.3	COMMUTER STUDENTS IN SOUTH AFRICAN HIGHER EDUCATION	51
3.3.1	Challenges commuter students face	52
3.3.2	Commuter student involvement and engagement and proposed strategies for success	54
3.3.3	Physical learning spaces as examples of what universities in South Africa have done to address commuter student success.....	56
3.4	CONCLUSION.....	58

Chapter 4**INSTITUTIONAL PERSPECTIVES ON STUDENT ACCESS AND SUCCESS WITH SPECIFIC REFERENCE TO COMMUTER STUDENTS.....59**

4.1	INTRODUCTION	59
4.2	THE STELLENBOSCH UNIVERSITY CONTEXT.....	59

4.2.1	Student access and participation during apartheid	63
4.2.2	Student access and participation post-1994.....	65
4.3	STUDENT SUCCESS	68
4.3.1	SU student success in comparison to national averages	70
4.3.2	SU student success interventions: curricular environment	72
4.3.3	Student success interventions: co-curricular environment.....	73
4.3.4	Commuter student success.....	75
4.4	SU ORGANISATIONAL STRUCTURE FOR STUDENT ACCOMMODATION.....	80
4.5	COMMUTER STUDENTS AT STELLENBOSCH UNIVERSITY	81
4.5.1	Institutional residence placement policies	84
4.5.2	Needs and concerns of commuter students.....	85
4.5.3	Further institutional investigations into the needs of commuter students	88
4.5.4	Learning spaces for commuter students.....	89
4.6	AMAMATIES HUB AS LEARNING SPACE FOR COMMUTER STUDENTS	91
4.7	CONCLUSION.....	96

Chapter 5

	THEORETICAL PERSPECTIVES ON THE IMPORTANCE OF STUDENT LEARNING COMMUNITIES FOR STUDENT ENGAGEMENT AND SUCCESS.....	98
5.1	INTRODUCTION	98
5.2	STUDENT ENGAGEMENT	98
5.3	THEORIES OF STUDENT ENGAGEMENT.....	100
5.3.1	Astin's Theories of Involvement.....	100
5.3.1.1	Astin's Theory of Involvement (1984)	100
5.3.1.2	Astin's I-E-O model (1993).....	102
5.3.2	Tinto's model of student retention (1975, 1993).....	104
5.3.3	Milem & Berger's Causal Model of student persistence (1997).....	105
5.4	THE IMPORTANCE OF STUDENT LEARNING COMMUNITIES.....	106
5.4.1	International perspectives on the importance of student learning communities for student engagement and success	109
5.4.2	National perspectives on the importance of student learning communities for student engagement and success	112
5.4.3	Institutional perspectives on the importance of student learning communities for student engagement and success	113

5.5	CONCLUSION.....	120
Chapter 6		
RESEARCH METHODOLOGY.....		121
6.1	INTRODUCTION.....	121
6.2	RESEARCH AIM, OBJECTIVES AND QUESTIONS.....	122
6.3	RESEARCH PARADIGM, DESIGN AND METHODS.....	125
6.3.1	Research paradigm.....	125
6.3.2	Research design:program evaluation.....	128
6.3.2.1	The Logic Model.....	128
6.3.3	Research methods.....	132
6.3.3.1	Data collection methods.....	133
6.3.3.2	Data analysis methods.....	134
6.4	VALIDATING THE STUDY.....	135
6.4.1	Validity.....	135
6.4.2	Reliability.....	137
6.5	POPULATION AND SAMPLING.....	137
6.6	ETHICAL CONSIDERATIONS.....	138
6.7	CONCLUSION.....	140
Chapter 7		
RESEARCH RESULTS AND INTERPRETATION.....		141
7.1	INTRODUCTION.....	141
7.2	RESEARCH QUESTION AND SUB-QUESTIONS.....	142
7.3	DATA COLLECTION AND ANALYSIS.....	142
7.4	DEMOGRAPHIC DATA.....	145
7.4.1	Respondents by residence and commuter student ward.....	145
7.4.2	Respondents by gender.....	147
7.4.3	Respondents by race.....	148
7.5	EXTENT TO WHICH THE OBJECTIVES OF THE STUDY AND THE OUTCOMES OF THE LOGIC MODEL HAVE BEEN ACHIEVED.....	151
7.5.1	Utilization of the facilities by commuter and residential students.....	151
7.5.2	Addressing of basic needs of commuter students with regard to meals, safety, rest and relaxation.....	157
7.5.2.1	Dining hall.....	158
7.5.2.2	Deli.....	159

7.5.2.3	Safety, rest and relaxation	160
7.5.3	Participation in learning communities (study and mentor groups) by commuter and residential students	163
7.5.4	Promotion of social interaction among commuter and residential students	166
7.5.5	Enhancing the academic experience and success of commuter students	167
7.6	USEFULNESS OF THE HUB AND GENERAL STUDENT SATISFACTION.....	177
7.6.1	Usefulness of the hub.....	177
7.6.2	General satisfaction of the commuter and residential respondents.....	179
7.6.3	Welcoming feeling of the hub and cluster.....	181
7.7	GENERAL EXPERIENCE OF THE AMAMATIES CLUSTER	184
7.8	THEORETICAL INTERPRETATION OF RESEARCH RESULTS.....	187
7.8.1	Interpreting commuter students' responses according to Astin's I-E-O Model.....	187
7.8.2	Interpreting residential students' responses according to Astin's Theory of Involvement.....	188
7.9	CONCLUSION.....	188
Chapter 8		
CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS		190
8.1	INTRODUCTION	190
8.2	OUTCOMES OF THE LOGIC MODEL.....	191
8.3	AIM AND OBJECTIVES OF THE STUDY	192
8.3.1	Utilization of facilities by commuter and residential students.....	193
8.3.2	Addressing the basic needs of commuter students with regard to meals, safety, rest and relaxation	193
8.3.3	Participation in learning communities (study, tutor and mentor groups) in the hub.....	194
8.3.4	Promotion of social interaction among commuter and residential students	195
8.3.5	Enhancing the academic experience and success of commuter students	196
8.4	CONTRIBUTIONS OF THE STUDY.....	196
8.5	LIMITATIONS	197
8.6	RECOMMENDATIONS	198
8.6.1	Policy.....	198
8.6.2	Practice	199

8.6.3	Proposals for further research.....	199
8.7	CONCLUSION.....	200
REFERENCES		201
Addendum A:	PARTICIPANT CONSENT	219
Addendum B:	AMAMATIES QUESTIONNAIRE	221
Addendum C:	HUMANITIES REC LETTER.....	225

LIST OF TABLES

Table 1.1:	Advantages and disadvantages of living on campus (DHET, 2011, p134).....	6
Table 3.1:	Number of public higher education institutions in South Africa, 1990-1994	36
Table 3.2:	Conceptual organizer for student engagement.....	56
Table 4.1:	SU all student enrolments by race, 1985-1994.....	64
Table 4.2:	SU undergraduate student enrolments by race, 1985-1994	65
Table 4.3:	National participation rates by race and gender, 2006 to 2015.....	66
Table 4.4:	SU undergraduate students by race, 1995-2000.....	66
Table 4.5:	SU undergraduate students by race, 2001-2006.....	67
Table 4.6:	SU undergraduate student enrolments by race and gender, 2007-2016	68
Table 4.7:	SU retention rates of undergraduate first year residential and commuter students by race, 2007-2015.....	76
Table 4.8:	SU National Senior Certificate (NSC) performance average of residential first-year students and commuter first-year students by race, 2007-2016	78
Table 4.9:	SU full year weighted average as percentage of Grade 12: residential and commuter first-year students by race, 2007-2016	79
Table 4.10:	SU student enrolment by accommodation type and race, 2013-2016	85
Table 6.1:	Basic beliefs associated with the major social science Paradigms	126
Table 6.2:	The Logic Model for the amaMaties hub and cluster	131
Table 6.3:	Types of validity	136
Table 7.1:	SU undergraduate students, residential students, commuter students, amaMaties cluster students and survey respondents per race, 2007-2016 (percentages).....	149
Table 7.2:	Awareness and utilisation of the meal offering by commuter and residential respondents at the dining hall in the amaMaties cluster	157
Table 7.3:	SU first-year amaMaties cluster and commuter students' averages as percentage of Gr 12 per race, 2007-2016.....	170
Table 7.4:	SU undergraduate students in commuter student wards and residences full year weighted averages as percentage of Gr 12 per race, 2007-2016.....	172

Table 7.5: SU final year students' graduation rates in commuter student wards, residences and at SU per race, 2007-2016174

LIST OF FIGURES

Figure 2.1:	Conceptual framework of engagement, antecedents and consequences	22
Figure 3.1:	Headcount enrolments by institutional type (thousands), 1990 and 1994	37
Figure 3.2:	Gross participation rate in the public higher education system, 1993.....	38
Figure 3.3:	Headcount enrolments by race, 2005-2010	41
Figure 3.4:	Headcount enrolments by race, 2009-2014	43
Figure 3.5:	Participation rates by race, 2009-2014	44
Figure 3.6:	Headcount graduates by age group, 2009-2014	47
Figure 3.7:	Course success rates by qualification level, 2009-2014.....	48
Figure 3.8:	Course success rates per qualification level by race, 2009-2014	49
Figure 3.9:	Graduation rates by race for 3-year degrees with 2009 as first year of enrolment (excluding UNISA) – accumulative	50
Figure 4.1:	Total number of SU students, 1910-2016	62
Figure 5.1:	Astin’s Input-Environment-Outcome (I-E-O) Model	102
Figure 5.2:	Conceptual typologies of learning communities	107
Figure 5.3:	Factors influencing student success and engagement.....	111
Figure 5.4:	Integrated Learning Communities at SU	115
Figure 5.5:	Day in the life of a residence student	116
Figure 5.6:	Day in the life of a commuter student.....	117
Figure 5.7:	A day in the life of a commuter student in the cluster	117
Figure 5.8:	Learning in living spaces of the clusters	119
Figure 6.1:	Diagrammatic presentation of the amaMaties cluster	123
Figure 6.2:	Integrating academic and social environments of residential and commuter students	124
Figure 6.3:	Steps of the Logic Model	129
Figure 7.1:	Summary of the number of questionnaires distributed and returned	144
Figure 7.2:	Respondents by residence and private student ward	146
Figure 7.3:	Respondents by gender.....	147
Figure 7.4:	Respondents by race	150
Figure 7.5:	Hub awareness of commuter and residential students.....	152

Figure 7.6: Number and percentage of residential and commuter respondents who visited the hub	153
Figure 7.7: Visits to the amaMaties hub by commuter and residential students per term	155
Figure 7.8: Residential and commuter respondents who eat at the deli.....	160
Figure 7.9: Residential and commuter respondents using the amaMaties hub to relax.....	162
Figure 7.10: Commuter and residential respondents' participation in study groups.....	163
Figure 7.11: Commuter and residential respondents' participation in mentor groups	165
Figure 7.12: Commuter and residential respondents' use of the amaMaties hub to socialize	166
Figure 7.13: Commuter and residential respondents' use of the amaMaties hub to study.....	168
Figure 7.14: SU undergraduate, residential and commuter students' full year weighted averages as percentage of Gr 12, 2007-2016	173
Figure 7.15: SU commuter, residential and all final year students' graduation rates, 2007-2016.....	176
Figure 7.16: Residential and commuter students: usefulness of the hub per number and percentage	178
Figure 7.17: General satisfaction of commuter and residence respondents	180
Figure 7.18: Extent to which residential and commuter students experienced a welcoming feeling	182

LIST OF PHOTOS

Photo 1:	Aerial photograph of the three female residences, HC rooms, dining hall and amaMaties hub	92
Photo 2:	Entrance to the amaMaties hub that was built on an existing kitchen roof.....	92
Photo 3:	Communal interactive area.....	93
Photo 4:	The dining hall at the amaMaties hub	93
Photo 5:	The deli at the amaMaties hub	94
Photo 6:	Academic support	94
Photo 7:	amaMaties students studying in the hub	94
Photo 8:	Braai area at the amaMaties hub (previously a bicycle shed).....	95
Photo 9:	Living area and bedroom of the House Committee Members of Libertas.....	95
Photo 10:	Overnight facility for commuter students at amaMaties hub	96
Photo 11:	The multifunctional amaMaties hub facility	96
Photo 12:	A 'lost-and-found' notice at the amaMaties hub.....	161

Chapter 1

ORIENTATION TO THE STUDY

1.1 BACKGROUND TO THE STUDY

Change in higher education worldwide is ubiquitous and unavoidable. Trow (2005) makes the important point that Western universities have survived in recognizable form for 800 years, and the modern research university for 150 years; yet, this is no guarantee that the university will survive in much the same form for the next twenty-five years (see also Barth, 2014). Higher education must adapt to the 'knowledge economy' where the production and use of information drives economic growth, and the 'learning society', where large parts of the population are more or less continually engaged in formal education of one kind or another (Gouthro, 2017; Jessup, 2014; Trow, 2000). One important result of these developments is the worldwide escalation of student numbers (Mok & Neubauer, 2016). This trend of massification of higher education is of importance for this study, as it has led to an increase in commuter students¹ in higher education institutions across the world. Commuter students, their needs and how these needs could be addressed is the focus of this study.

1.1.1 Massification of higher education and increase in commuter students

Worldwide, the massification of higher education (Hornsby & Osman, 2014; Mok & Neubauer, 2016) is continuing unabated. As a result, higher education institutions are experiencing increased numbers of both traditional (18-24 year old school leavers) and non-traditional (mature, working and part-time) students (Hornsby & Osman, 2014; Trow, 1973, 2005). At the same time, higher education institutions are experiencing financial cut-backs due to the economic downturn, lower than expected economic growth and the inability of most governments to adequately fund public higher education (Barr & Crawford, 1998; Cloete, 2016; Spaul, 2016). The combination of these factors has resulted in financial stringencies (Spaul, 2013; 2016) that are prohibiting higher education institutions from creating sufficient infrastructure for

¹ In this study the terms non-residential students and commuter students are used alternatively to denote students who do not live in university or institution-owned accommodation.

student accommodation, and hence, a significant escalation in the numbers of commuter students (Thomsen & Eikemo, 2010). Implications of the massification of higher education and the increase in commuter student numbers can be illuminated from international, national and institutional perspectives; these will now be elaborated upon.

1.1.1.1 *International perspectives*

Massification is a term used to describe the rapid increase in student enrolment that was witnessed towards the end of the twentieth century. Massification, as a process, challenges the traditional form of universities as centres of elite education to which only a select few gain access (Hornsby & Osman, 2014). Hornsby and Osman (2014, p. 712) noted “that gross enrolment ratios of those seeking higher education globally has risen from 13.8% in 1990 to 29% in 2010. Whilst the same degree of enrolment does not exist in Sub-Saharan Africa, which has a lower higher education enrolment rate, there has still been more than a doubling of gross enrolment ratios from 3% in 1990 to 7% in 2010, according to UNESCO Institute for Statistics Figures”. As a result of the rapid growth in participation rates and student numbers at most universities across the world, non-residential (commuter) students are in the majority (Lui, 2012; Marginson, 2016; Mohrman, 2014; Mok & Neubauer, 2016; Newbold, Mehta, & Forbus, 2011; Ortman, 1995; Trow, 1973, 1999, 2000, 2005).

For the purpose of this study, the term ‘commuter students’ include all students who do not live in institution-owned housing. They constitute an extraordinarily diverse population (Davis, 1999; Jacoby, 1989, 2000b; Kuh, Gonyea, & Palmer, 2001; Ortman, 1995). Their numbers include full-time students of traditional age who live with their parents, part-time students who live in rental housing near the campus, and adults who have careers and children of their own. The commuter student population will continue to become more diverse as access by part-time, adult and minority students to higher education, including subgroups such as student parents, veterans, first generation and fully employed students increases (Jacoby, 1989, 2000b; Long, 2014; Newbold et al., 2011; Ortman, 1995). Commuter students, who can also be distinguished as ‘walking’ or ‘driving’ commuters (Jacoby & Garland, 2004), share a common core of needs and concerns (Clark, 2006; Garland, 2006; Jacoby, 2000a; Ortman, 1995).

Many commuter students struggle to find space or time to study at home, and others acknowledge that the problem is even more basic: they lack a safe place to live (Donovan, 2006). The realities that commuter students face include the need for reliable transport, support networks on campus – as they have to juggle multiple life roles – and support to believe that they belong to the institution (Garland, 2006). They often lack a sense of belonging² (Bloomquist, 2014; Jacoby, 2015), and in order for them to take full advantage of the higher education experience to achieve self-actualization, their other basic needs must be met.

One way of explaining commuter students' needs are by turning to Maslow's (1970) hierarchy of needs explaining human motivation and personal development. Maslow's (1962) hierarchy of needs entails five levels, namely the lower-level needs: physiological and safety, the middle-level need: belongingness, and the higher-level needs: esteem and self-actualization. Maslow (1962) argues that one must satisfy each need in turn, starting with the biological and physiological needs first, because they deal with the most obvious needs for survival. Commuter students are frequently preoccupied with satisfying their lower-level needs (Reid-Cunningham, 2008; Simons, Irwin, & Drinnien, 1987). Only when the lower order needs of physical and emotional well-being (Seligman & Csikszentmihalyi, 2014a) have been satisfied, can a person become concerned with the higher order needs of influence and personal development. This hierarchy can be very useful in understanding the experience of commuter students.

Higher education institutions therefore need to provide services to help meet commuter students' basic needs for housing, transportation, food, security, health care and child care. In addition, these students need to have a sense of belonging (Alvarez et al., 2007; Hagerty, Williams, Coyne, & Early, 1996; Hausmann, Schofield, & Woods, 2007; Hoffman, Richmond, Morrow, & Salomone, 2002; Kirk & Lewis, 2013) and of being accepted by the campus community.

John Garland (2006), the coordinator for the National Clearinghouse for Commuter Programmes (NCCP), believes that higher education needs to replace the myths of commuter students with the realities of commuter students' common needs (Jacoby,

² Sense of belonging refers mainly to the perception of support from peers, lecturers and other staff of the institution.

1989; Newbold et al., 2011). Some myths about commuter students are that they need to get more involved in campus activities to experience genuine student life, but that they will not get involved or participate, because they spend too little time on campus. The perception may be that commuter students do not want to get involved with fellow classmates, campus life or activities, but research indicates that this is not true (Davis, 1999; Jacoby & Garland, 2004; Kuh et al., 2001).

Jacoby (1989) further posits that commuter students cannot become involved in learning in the same ways that traditional, residential students do. The mere fact that students commute to campus profoundly affects the nature of their educational experience. Institutions can, however, create opportunities to enhance commuter students' involvement in learning in ways that meet their needs (Jacoby & Garland, 2004). Rather than expecting commuter students to adjust their lifestyles and schedules, it is the responsibility of colleges and universities to design, specifically and intentionally, curricular and co-curricular mechanisms to involve commuter students in learning (Jacoby, 2000b, 2015; Jacoby & Garland, 2004). By bringing classroom and out-of-class experiences together in the residential setting, student development and learning is enhanced (Kuh, Schuh, & Whitt, 1991); this, however, commuter students miss out on.

Creating ways to increase the visibility and interaction of commuter students in classes and on campus remains a challenge (Kuh, Kinzie, Schuh, & Whitt, 2011). Attending classes during lunch break is often quite common for students who commute (Clark, 2006). One of the most frustrating problems for these students is to get connected to lecturers and peers inside and outside the classroom, as they often arrive just in time for class and leave immediately after the class has ended (Dwyer, 2015). Time is an especially precious and limited resource for commuter students, and involvement in the academic and social life of the university community presents distinct challenges (Jacoby, 1989). They seek to be involved in the campus community and in their learning, but their lives consist of balancing many competing commitments such as family, work and other responsibilities (Jacoby, 2000b; Jacoby & Garland, 2004). Students who do not have satisfactory living or transportation arrangements are not able to concentrate on involvement in learning (Maslow & Lewis, 1987). Therefore, they simply cannot always make education their primary focus.

Some national perspectives on massification and commuter students within the context of South African higher education will now be discussed.

1.1.1.2 National perspectives

The South African higher education system is characterized by huge growth in participation rates. In their review of higher education in South Africa after two decades of democracy, the Council on Higher Education (CHE, 2016c, p. 144) found that:

The strong demand for places in higher education, supported by the 1997 White Paper's commitment to equity of access, has manifested in substantial growth in black student enrolment over the last two decades, in terms of absolute numbers as well as proportion of the total headcount. Total enrolment has increased by over 80% to close the one million. The major portion of this growth has been in African enrolment, which reached 79% of the total in 2010. At the same time, enrolment by gender has changed markedly, with women making up 57% of undergraduate students in 2010.

After 1994, the demand for higher education access has grown significantly, particularly amongst African, coloured and Indian students, who were under-represented in higher education at that time (CHE, 2016c). According to the White Paper for Post-School Education and Training in South Africa (DHET, 2013, p134), "participation rates in universities are also expected to increase from the current 17.3 per cent to 25 per cent which means, from just over 937 000 students in 2011 to about 1.6 million enrolments in 2030". Improved student access, success and throughput rates, particularly for those whose race, gender or disability has previously disadvantaged them, remain a serious challenge for the university sector, and have become a priority focus for national policy and for institutions themselves (DHET, 2013). Many of the students who have benefited from widened access are commuter students.

Very little research with regard to identifying and addressing the specific needs of commuter students has, however, been conducted in South Africa. The Report of the Ministerial Committee for the Review of the Provision of Student Housing at South

African Universities (DHET, 2011) suggested the necessity of investigating ways and means of providing for the needs of commuter students by pointing out that South Africa has seen an explosion in student enrolment in its residential university system (i.e. excluding Unisa), with enrolments reaching 538 210 in 2011, while beds in institutional accommodation facilities were only available for 20% of that number. The question is: what happens to the other 80%?

The above-mentioned Ministerial Committee identified a number of advantages that could be claimed for living on campus, and a number of disadvantages to living off campus, as indicated in Table 1.1 below:

Table 1.1: Advantages and disadvantages of living on campus

Factor impacting on studies	Benefits of living on campus	Problems with living at home or with relatives
Travel time and cost to get to and from classes.	Less time and money is spent on travel, and more on studying.	In many cases travel takes time which could be spent studying.
Living space conducive to studying.	Students have their own space (however limited) and access to library and internet.	Often students living off campus experience problems of finding space to study; they may have no local access to libraries or internet.
Safety.	Although safety is a challenge on campuses there are efforts to create a safe environment.	The travel arrangements for getting back to townships at night can be dangerous (taxis and long walks to taxi ranks).
Building a support network.	Particularly in the first year, study groups, mentoring and social activities are important.	Very often students find it hard to build support networks when they live away from the university.

Source: DHET (2011, p134)

There is agreement amongst South African university stakeholders that there are significant academic advantages for students who live on campus. These advantages include access to libraries and other university facilities and events, being in a more conducive environment for studying, and the removal of pressure to travel long distances. It is widely believed that students living on campus have a better chance of fully engaging in the challenges of full-time study at an undergraduate level than those

who live in the house of friends or relatives, or in rented accommodation, and who have to commute on a daily basis. It is therefore necessary to think innovatively about addressing the lack of accommodation and beds in a so-called residential university system. All of these factors have implications at the institutional level.

1.1.1.3 Institutional perspectives

Stellenbosch University (SU) is positioning itself to effectively address the evolving 21st century challenges. The pressure to serve more students, to deal with shifting societal needs and to remain relevant in the knowledge economy with less space and money available, remains a serious challenge for institutions. According to Stellenbosch University Institutional Intent and Strategy 2013-2018 (SU, 2012a), the university needs to create an environment that is inclusive, transforming, innovative, diverse and one that maintains excellence. The strategies, structures, processes and program offered therefore need to be reviewed – with a focus on the future – by all stakeholders. This positioning needs to address all core activities and must include teaching and learning, research and community interaction, student persistence, diversity, support activities, physical buildings, technology, infrastructure and systemic sustainability (SU, 2011). This also necessitates revisiting how the university caters for the student experience of all its students.

Concerns about the learning experience of commuter and non-residential students³ at the university have been shared by staff and students for some time. As a result, a task team was appointed in 2008 to investigate the experience of commuter students and to make proposals to address their needs and concerns in order to enhance the quality of the university experience for this majority of students (SU, 2009). The task team (SU, 2009) identified safety and security, transportation, meals, recreation facilities, a facility for small-group work and overnight accommodation for times of transport failure as common needs amongst commuter students. An outcome of this

³ A distinction can be made between commuter and non-residential students, with 'commuter students' referring to students who drive to campus on a daily basis, and 'non-residential students' those who live in private accommodation close to campus. For the purpose of this study the term 'commuter students' will be used which includes both groups of students.

report and its recommendations was the cluster initiative and the establishment of the amaMaties hub⁴ in 2012.

The challenge was to reorganize organizational structures and create or modify physical facilities on campus to be able to give commuter students an educational experience similar to that of residential students. This was supported by research (Astin, 1993a; Brower, Inkelas, & Kurotsuchi, 2010; Pascarella & Chapman, 1983; Terenzini, Pascarella, & Blimling, 1999; Tinto, 2000) that indicated that:

- residences make the university 'smaller';
- time and space overlap in residences;
- residences are diverse living spaces;
- the social dynamics in residences support the academic mission of the university;
- learning and living are connected, and
- academic and wellness peer-coaching is more easily organized in living spaces.

In order to achieve this, it was decided to organizationally integrate residential and commuter students. In order to effect the above benefits for commuter students as well, residential and commuter students were organizationally integrated and reorganized in the cluster⁵ initiative. The cluster initiative aimed to build a student culture that promotes student success and positive social experiences, and one of developing all students to become effective role players within and beyond South Africa.

In addition, a physical on-campus space (hub) for commuter students in the amaMaties cluster was built in 2011. The purpose of the hub was to integrate residential and commuter students through a dedicated building, and also grant access to commuter students to common areas in the residences such as dining and study halls, and in this way to support student success within the specific learning community.

Within this facility and amaMaties learning community, commuter students have the opportunity to study 24 hours per day in the hub, book meals at the dining hall, charge

⁴ A hub is a centre for residential and commuter student activities at Stellenbosch University.

⁵ A cluster consists of a number of residences and commuter student wards that are geographically grouped together.

cell phones, use wifi to work on their laptops, relax on the soft seating and buy food until 21:30 at the deli that sells light meals and snacks. They can also sleep in the backpackers' rooms in case of emergency or when co-curricular activities end late at night. Students have the opportunity to lock away their valuables in the lockers provided in the hub. Residential and commuter students can form study groups with their peers on campus, have mentor sessions, have small-group discussions with lecturers as part of the out-of-class experience and integrate into the social community of the cluster.

The hub and cluster was the first of its kind at SU and at any South African university, hence it has become necessary to evaluate the cluster initiative and amaMaties hub to determine if the space that is provided to integrate commuter and residential students is indeed serving its purpose.

1.1.2 The importance of learning communities

Reference was made above to research that examined the differences between students who live on campus and those that commute to university,⁶ with some studies suggesting that students who live on campus tend to have advantages over those who commute to campus. Jacoby and other researchers (Dugan, Garland, Jacoby, & Gasiorski, 2008; Jacoby, 1989, 1990, 2015; Jacoby & Garland, 2004; Weiss, 2014) did numerous studies on commuter students, identified propositions to involve commuter students in a sustainable way and suggested that a more commuter-friendly campus environment needs to be developed. In order to achieve such an environment:

- the institutional mission and goals must support it;
- it needs to demonstrate the effectiveness of involving commuter students in learning;
- it must build cross-functional collaboration, and
- it must support and reward the involvement of academic and other staff.

Highly involved students devote considerable effort to studying, to work on-campus rather than off-campus, to participate actively in student activities and to interact

⁶ In the South African context the term 'university' includes the 'college' referred to in American literature, and will be used inclusively throughout this study.

frequently with faculty members and peers (Astin, 1984; Chickering & Gamson, 1999). Uninvolved students, however, tend not to study enough, not be involved in student life, to spend little time on campus and to have little contact with lecturers, fellow students and learning communities (Jacoby, 2003; Kuh, 2003). Most learning communities incorporate active and collaborative learning activities and promote involvement in complementary academic and social activities outside the classroom. Such approaches are linked to positive behaviors like increased academic effort and outcomes and to promoting openness to diversity, social tolerance and personal and interpersonal development (Zhao & Kuh, 2004).

Cross (1998) defined learning communities as groups of people engaged in intellectual interaction for the purpose of learning. The three reasons why there is so much interest in learning communities, according to Cross (1998), are that learning communities firstly fit into a changing philosophy of knowledge (philosophical), secondly, they engage with what research tells about learning (research based), and thirdly, they work (pragmatic). Learning communities are not only advantageous, they are also necessary, because people construct knowledge by working together cooperatively and interdependently. Learning communities are where conversations happen, and represent a reflection of changing ideas about the source of knowledge and learning.

According to Tinto (2000), students within learning communities tend to form their own self-supporting groups which extend beyond the classroom. Students in a learning community spend more time together out of class than students in traditional academic classes, and in ways that students see as supportive. Learning community students become more actively involved in classroom learning than other students, even after class. In this way, learning communities enable students to bridge the divide between the curricular and co-curricular spaces that frequently characterizes student life. They tend to learn and to make friends at the same time (Tinto, 2000).

Uninvolvement in student activities on campus is seen as a disadvantage and adds to the greater levels of stress as a result of commuting (Alfano & Eduljee, 2012). Learning communities on campus provide a broader structural platform for implementing powerful pedagogies, and contribute to improving undergraduate education. In an increasingly diverse student population learning communities draw on the power of personal commitments and relationships (Smith, 2001). The important question for this

study is whether learning communities can also effect change for an increasing number of a diverse commuter students.

1.2 PROBLEM STATEMENT

From experiences at other universities around the world and at SU, it has become clear that commuter students need special attention so that their student experience can become more comparable to that of residential students. Though residential and commuter students share the same experiences inside the classroom, the commuter students' experience outside the classroom is very different from that of residential students. Yet, the out-of-class experience of commuter students plays a decisive role in their development and will have a significant impact on their academic performance. For SU, promoting the integration of commuter students into learning communities, such as the amaMaties cluster, is therefore not only essential, but also requires a systemic holistic approach.

Against the above background, the problem that this study addressed was to evaluate to what extent and how the amaMaties hub and cluster have actually contributed to an environment where the needs of commuter students are met, and whether the development of a healthy student learning community in which commuter students could participate, has been achieved. How the evaluation was done is explained in Chapter 6, and the results and findings are presented in Chapter 7.

The amaMaties hub facility is part of the commuter students' environment and as such contributes to shaping these students' outcomes. Adopting the lens of Astin's Theory of Involvement (1984) and the Input-Environment-Outcomes (I-E-O) model (1993), the role of the hub in shaping the outcomes will be investigated and evaluated. This is discussed in more detail in Chapter 7.

1.3 RESEARCH AIM AND OBJECTIVES

The aim of the study was to determine what effect the amaMaties hub and the cluster had on commuter students (Libertas and Equité students⁷) at the time of this study, whether their basic needs were addressed, whether the facilities had been used for

⁷ Libertas refers to the male commuter student ward and Equité to the female commuter student ward in the amaMaties cluster.

study groups, mentor groups, social and academic conversations and whether there was sustained support in this learning community for them.

Against the above background, the research question was: did the amaMaties hub and cluster fulfil its intended purpose of addressing the needs of commuter students in the cluster and of creating learning communities among all the students in the cluster?

The objectives of the study are:

- to determine to what extent the facilities were being utilized by the Libertas and Equité commuter students;
- to determine to what extent the hub fulfilled the basic needs of the Libertas and Equité commuter students;
- to determine to what extent the Libertas and Equité commuter students and residential students participated in learning communities (study, tutor groups and mentor groups) in the hub;
- to determine to what extent social interaction among all the students in the cluster (both commuter and residential) was promoted;
- to determine if the academic experience and success of commuter students in the cluster were enhanced.

1.4 RESEARCH PARADIGM, DESIGN AND METHODOLOGY

The study was conducted in a pragmatic paradigm (Shannon-Baker, 2016) as it tried to find practical solutions to actual human problems. The focus of the study was to evaluate if the cluster initiative and the hub fulfilled their intended purpose, in this case addressing the needs of commuter students of the amaMaties cluster at SU. This focus lent itself well to adopting an evaluation design.

The research design (Creswell, 2012; Mouton, 2001) for this study was program evaluation. A logic model of the amaMaties hub and cluster was drawn up, which listed the expected outputs, outcomes and impact of the initiative. This study reports on only the evaluation of the proposed outcomes of the study. Due to the limited scope of a master's study, the other components of the Logic Model have not been covered. Furthermore, it was still too early to do an impact evaluation, thus the study took the

form of a formative evaluative study, as the purpose was to improve the initiative and to address any weaknesses and gaps that might be identified.

1.4.1 Data collection

Qualitative and quantitative data were collected, analyzed and interpreted (Creswell, 2012; Sandelowski, 2000) in order to evaluate to what extent the expected outcomes of the initiative were achieved. The formative evaluation results can inform the decision-making processes when designing and building more hubs at SU in future.

A self-generated questionnaire was sent electronically to both residential and commuter students in the amaMaties cluster, as the cluster initiative at SU aims at integrating residential and non-residential students in learning communities within every cluster. In order to ascertain to what extent this happened, both groups of students were included in the investigation.

Data from the Academic Performance System (APS) were used to compare the academic performance of students in the two commuter student wards concerned. Commuter students are unfortunately often stigmatized as possessing lower levels of commitment to their studies, setting lower educational goals, being apathetic towards campus matters, or engaging less academically (Jacoby, 2000b; Jacoby & Garland, 2004). Furthermore, empirical evidence shows that there is a greater level of academic success among students that live in a vibrant, supportive residential student environment than among students that commute to class every day (Addai, 2015). Hence, the APS data were utilized to ascertain whether commuters students' academic performance may have improved after the establishment of the hub.

1.4.2 Data analysis

Leedy and Ormrod (2005) also see Gray and Malins (2016), define research as a logical process in which data is collected, analyzed and the meaning explained in order to understand the phenomenon that is investigated. This study employed program evaluation (Wholey, Hatry, & Newcomer, 2010) in order to meet the research aim and objectives. In using program evaluation (Lieberman, Fagen, & Neiger, 2014) the purpose was not primarily to make decisions about the effectiveness of the program (summative evaluation), but rather to collect data that can be used to develop or

improve the initiative (formative evaluation) (Flagg, 2013), and to address any weaknesses and gaps that might be identified (Creswell, 2012).

1.5 VALIDATING THE STUDY

The researcher collected qualitative (Pallant, 2010) and quantitative data during the research. Qualitative responses were used to explain the quantitative responses. In addition, the results of a satisfaction and needs survey among commuter students, done in 2017 by SU Student Affairs, were studied, and the researcher concluded that these results confirm the results of the amaMaties questionnaire.

In order to increase the trustworthiness of the data, the researcher, being the coordinator of the amaMaties cluster, made use of the Division for Institutional Research and Planning (DIRP) at SU to distribute the questionnaire electronically to all the students in the amaMaties cluster. All completed questionnaires were submitted directly to the DIRP, from where the processed data were collected by the researcher. This ensured that there was distance between the researcher and the participants, since some of the latter were known to the researcher, (Miles & Huberman, 1994), and that the researcher could not influence the participants' responses in a way that would compromise the research results.

1.6 DEFINITION OF KEY CONCEPTS

A number of concepts are defined below to ensure a common understanding of their meaning in the context of this study.

- Commuter students and non-residential students – students who do not live in university or institution-owned accommodation; also differentiated into walking and driving commuters (Jacoby, 1989).
- Clusters – a cluster consists of a number of residences and non-residential student wards that are geographically grouped together in order to effect integration between residential and non-residential students and to create learning communities. Clusters promote 'residential education' among all students, and enhance the academic experience of commuter students.

- Cluster coordinator – a permanent staff member of SU that oversees the functioning of the cluster.
- Hub – a physical on-campus space, mainly for non-residential students, granting access to common areas in residences, for example dining and study halls.

1.7 ETHICAL CONSIDERATIONS

Confidentiality and anonymity were maintained throughout the research, as no names of participants were mentioned or published nor could they be retrieved by the researcher. All the information that was obtained in connection with individual participants in this study remain confidential.

The ethical obligation for the researcher was to ensure that research participants could not be identified on the basis of the information presented, and also to prevent information being linked to them, unless specific arrangements to the contrary have been made (Palys & Lowman, 2000; Ritchie, Lewis, Nicholls, & Ormston, 2013, p. 78; Silverman, 2016, p. 31).

Approval to conduct this study was obtained from the Research Ethics Committee (Humaniora) of SU (Addendum C). Institutional permission was also granted for soliciting the participation of SU students and alumni for the purpose of this study from the DIRP. The ethical considerations will further be elaborated upon in Chapter 6.

1.8 SCOPE AND LIMITATIONS OF THE RESEARCH

The study is positioned in the field of Higher Education Studies and focused on the evaluation of the amaMaties hub and cluster for commuter students at SU. The evaluation of the program was therefore contextualized within one institution and the results cannot necessarily be generalized. However, it is foreseen that the findings and recommendations of the study will provide guidelines to student affairs and student communities practitioners and evaluators, demonstrating a novel approach to holistic commuter student engagement and development within the South African higher education context.

1.9 CONCLUSION

Chapter 1 introduced the context and content, by addressing the international, national and institutional background of the study as well as the importance of student communities. This was followed by the aim and objectives that the research planned to attain through the pragmatic paradigm, research design and methodology. The chapter is concluded by the definitions of the key concepts and ethical considerations, scope and limitations of the research.

In Chapter 2 international perspectives on student access, success and physical spaces, with specific reference to commuter students' fundamental needs, will be discussed.

Chapter 2

INTERNATIONAL PERSPECTIVES ON STUDENT ACCESS AND SUCCESS WITH SPECIFIC REFERENCE TO COMMUTER STUDENTS

2.1 INTRODUCTION

Massification of and increased access to higher education is a worldwide phenomenon. This chapter commences with a brief overview of this phenomenon that has led to larger numbers of 'non-traditional' students, including working adults, mature learners, first-generation students, working-class students and part-time students entering higher education (Dawson, Charman, & Kilpatrick, 2013; Gilardi & Guglielmetti, 2011; Mlinar, 1994; Schofer & Meyer, 2005; Tinto, 2006; Trow, 2005). It will then be demonstrated that this has put student success under pressure, because many of these 'non-traditional' students have to cope with a plethora of challenges, including balancing their studies with work and family responsibilities, and commuting to university (Townsend, 2006). This has created new demands on higher education institutions in terms of student support (Engstrom & Tinto, 2008) in order to ensure student success.

Subsequently, the chapter will turn its attention to the positive relationship between student success and student engagement (Astin, 1984, 1993a; Chickering & Gamson, 1987; Kuh, 2001a; Pascarella & Terenzini, 1991; Pascarella, Terenzini, & Feldman, 2005), while being cognisant of the fact that it is more challenging to promote or enhance student engagement among commuter students, because they are not easily integrated into student communities. This necessitates the investigation of theories of student engagement in order to think about ways in which student engagement among commuter students can be enhanced (Astin, 1985; Kuh, 2001a, 2009; Kuh, Kinzie, Schuh, & Whitt, 2005; Pascarella & Terenzini, 1991; Pascarella et al., 2005). In addition, the chapter will investigate what universities internationally have done to cater for the specific needs of commuter students, to address the challenges they experience and to improve student engagement among these students.

Chapter 3 will briefly address these issues in the South African context.

2.2 MASSIFICATION AS A WORLDWIDE TREND IN HIGHER EDUCATION

Massification in higher education is a worldwide phenomenon (Baker, 2015). An increase in enrolments at higher education institutions concomitantly results in a growth of commuter students. Various studies (Jacoby, 1989, 2000b; Tario et al., 2010) highlight the fact that more effort should go into providing commuter students with a university experience that is on par with that of residential students (Kuh, Kinzie, Cruce, Shoup, & Gonyea, 2006; Nelson, Clarke, Stoodley, & Creagh, 2014).

Trow's (2000) typology of elite, mass and universal higher education, with elite systems representing a national enrolment ratio of up to 15%, mass systems representing a ratio of up to 50%, and universal higher education representing a ratio in excess of 50%, is demonstrated when exploring the growth of higher education in the United States (US). Whereas participation rates of 45% were common in the 1960s, these rates grew to approximately 63% in 1994 (Gumport, Iannozzi, Shaman, & Zemsky, 1997) with the current Gross Tertiary Education Rate (GTER) exceeding 50% (Marginson, 2016). This massive growth in student enrolments happened slowly prior to World War II (WWII) when tertiary education was mainly for male and white minority groups. However, after WWII (Trow, 2005) – between the 1960s and mid-1970s – when social and economic growth caused a greater demand for higher education, the availability of financial assistance led to an unprecedented growth in student numbers from middle- and low-income population groups. Financial aid, the Women's Rights Movement that since the 1960s encouraged women to enrol in higher education, as well as the Civil Rights Act led to an increase in access of women, part-time and older learners. Although the middle-income class numbers had doubled in 1961, the number of institutions did not grow accordingly and therefore existing institutions had to expand their capacity. This expansion was however not sufficient, because the enrolment numbers in the mid-1970s grew to five times the numbers in 1951. An important factor in the massification of higher education in the US was the rise in community colleges in the 1960s, all of whose students are commuters as there were no residence halls at such colleges until very recently (Brint & Karabel, 1989).

In the period between 1970 to 1976 the types of institutions expanded to reflect the increasing diversity and demographics of enrollments and to accommodate the acceleration of availability of financial aid and funds, the pressure for high graduation rates and the increasing complexity of leadership structures (Gumport et al., 1997).

Student demographics changed from the usually enrolled cohort of school-leavers between 18 and 22 years, when the largest increase of students over 30 years of age was experienced in the US between 1975 and 1980. By the 1990s women and racial and ethnic minorities represented more than 40% of the American student population attending universities. However, during the same period, the enrolment rates of high school-leavers attending higher education in the US started to flatten (Gumport et al., 1997). Between 1981 and 1993, government funding for higher education also dropped with almost 10%, which caused a massive increase in tuition fees (Fountain & Fountain, 2013) that exceeded inflation rates.

In Europe the demand for higher education also increased after WWII, with challenges similar to those in the US. According to Trow (2000), related challenges included the rapid increase in costs as a result of the growing numbers of students and the underfunding by government. This meant that more students had to be educated with less money (Janssen & Estevez, 2013), which contributed to the loss of the quality of higher education (Schendel & Mccowan, 2016). The development of information technology (Altbach, 2015), the global drive for lifelong learning (Fountain & Fountain, 2013) and universal access to higher education created the need for external assessment of higher education standards (Trow, 2000). Trow (2000) concluded that the systems for transformation to deal effectively with mass student populations at elite universities in Europe, and the pressure for universal growth and access in the US, could be seen as the crisis elements of these higher education systems.

An increased demand for higher education at African universities also occurred during the late 1970s and early 1980s when a general growth in population in African countries flourished, due to improvements in health and economic well-being (Mohamedbhai, 2008). Consequently, secondary school enrolments that increased by 43% from 1999 to 2004, as well as the increased demand for tertiary education, left African higher education in a 'crisis' (Ajay et al., 1996 in Mohamedbhai, 2008, p. 7), since not all the countries were capable of coping with the increased numbers. In the

1990s, higher education institutions in Africa also started to experience diminishing funding (Varghese, 2013) by government due to the political and financial crises that occurred in some African countries and the financial support from the World Bank that had decreased from 17% to 7% during the same period (Mohamedbhai, 2008). Varghese (2013, p. 1) explained that whereas universities in developed countries could deal quickly with financial cut-backs through policies and management, universities in developing countries responded more slowly and consequently faced challenges that led to the collapse of facilities and educational standards, and subsequently a drop in standards of teaching. However, at the start of the 21st century, the importance of higher education in the development of the economy, and the role that it plays in the development of human capital, the economic growth of a country and how society is organized, were recognized by African governments (Mohamedbhai, 2008, p. 3). Although a significant increase in the genuine enrolment numbers occurred between 1991 to 2005, the participation rate was still the lowest (5%) in the world (Mohamedbhai, 2008, p. 6). Mohamedbhai (2008) further postulated that it could still be seen as institutional massification, because most of the countries were and are still developing, and the massification happened without any proper planning or sufficient staff members, financial aid or the necessary facilities to accommodate all the students, especially in residences, resulting in an increase in the numbers of commuter students.

2.3 COMMUTER STUDENTS

Research indicates that living on campus is related to better academic results, better social and academic integration and higher rates of persistence (Long, 2014; Terenzini et al., 1999). However, the majority of students across the world do not live on campus and have to cope with a multitude of challenges in their daily live, thus they need more institutional support in order to reach the same outcomes.

2.3.1 Conceptualization

Commuter students are generally defined as those students not living in university-owned accommodation (Jacoby, 1989; Ortman, 1995), and who can be identified as either 'walking' or 'driving' commuters (Jacoby & Garland, 2004). Commuter students are either dependent (living with parents, family or friends) or independent (not living

with parents, family or friends, but in private on- or off-campus accommodation) (Dugan et al., 2008).

Jacoby and Garland (2004) argue that it is very complex to support commuter student success and engagement, because most institutions treat commuter students as homogeneous (Dugan et al., 2008; Jacoby, 1989) and believe that development opportunities (Jacoby & Garland, 2004), programs, policies and activities put in action for residential students will also serve commuter students' needs on campus (Jacoby, 2000a; Pascarella, 2006). However, commuter student populations become more diverse as non-traditional, part-time, adult (Kahu, Stephens, Leach, & Zepke, 2013), female and minority student numbers (Jacoby, 2000b; Ortman, 1995) continue to increase. They therefore differ in terms of age (Kahu et al., 2013), gender (Harvey, Drew, & Smith, 2006), ethnic background (Newbold et al., 2011), socio-economic status (Marginson, 2016), finances (Burlison, 2015), employment (Nelson, Misra, Sype, & Mackie, 2016), family status (Weiss, 2014), living arrangements (Long, 2014), distance from campus (Nelson et al., 2016), modes of transportation (Newbold, 2015), educational aspirations (Quaye & Harper, 2014) and academic abilities (Alfano & Eduljee, 2013; Braxton, Hirschy, & McClendon, 2011; Clark, 2006; Davis, 1999; Gilardi & Guglielmetti, 2011; Jacoby, 1989; Jacoby & Garland, 2004; Newbold, 2015; Ortman, 1995). Mature commuter students (Kahu et al., 2013) have competing commitments that include family and work and managing households (Clark, 2006). Hence, for non-residential students to be successful, higher education institutions need to enhance their educational experience and engagement, because they represent the majority at most higher education institutions (Jacoby, 1989) and will most probably continue to increase as the push for higher education becomes stronger in more countries around the world (Mok & Neubauer, 2016).

The positive influence that *student engagement* has on student success has been widely studied (Burlison, 2015; Honeychurch & Ahmed, 2016; Kuh, 2001a; Nelson et al., 2014; Strydom, Basson, & Mentz, 2012; Trowler & Trowler, 2010; Zepke & Leach, 2010; Zhao & Kuh, 2004) and many frameworks and theories have been proposed from the research. Kahu (2013, p. 758) assessed *student engagement* by means of the four most influential frames of reference, namely the *behavioural*, *psychological*, *socio-cultural* and *holistic* perspectives of students' higher education experiences.

Broadly discussed, the *behavioural* perspective refers to the behaviours of the student and the teaching practice of the institution, the *psychological* perspective refers to the internal motivation, expectations and emotions of the student, whereas the *socio-cultural* perspective engages with the socio-political context and engagement, and the *holistic* perspective gives a broad overview of student engagement when bringing together the different perspectives (Kahu, 2013, p. 758). She also proposed a useful *framework of engagement* (see Figure 2.1) to improve student engagement and success. For the purpose of this study, this framework will be applied to commuter students where the interconnectedness between the *structural* and *psychosocial* influences and the *proximal* and *distal* consequences of *student engagement* within the wider socio-cultural context will be discussed separately.

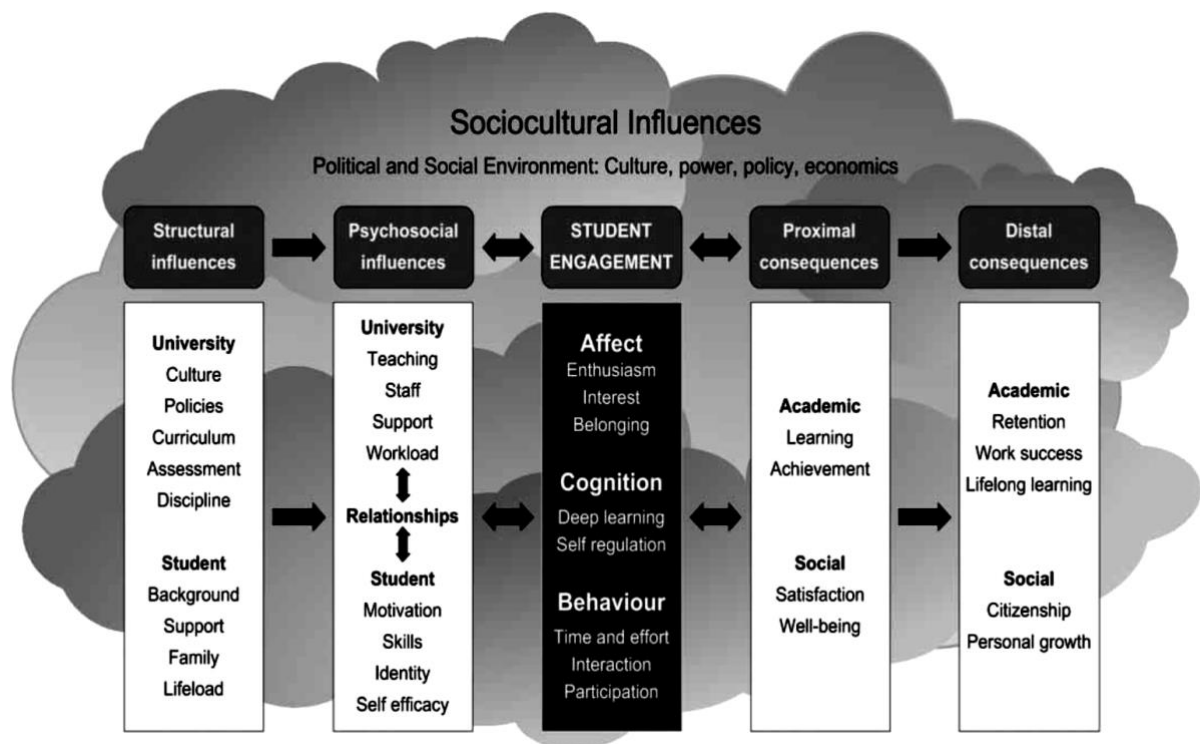


Figure 2.1: Conceptual framework of engagement, antecedents and consequences

Source: Kahu (2013, p. 766)

This framework enables us to have a better understanding of the needs and challenges (Jacoby & Garland, 2004) that commuter students experience, the influence that the demographics (Newbold et al., 2011) and the institution have on student engagement (Jacoby, 2014; Quaye & Harper, 2014) and how institutions can help to improve their experience.

2.3.2 Structural influences

Structural influences refers to the institutional culture, policies and assessment that occur at the university. Universities create an academic culture (Weiss, 2014, p. 130) of excellence, and worldwide students have the opportunity to choose which university they would want to attend (Wardley & Bélanger, 2013) due to open access, advanced technology, internationalization (Orosz & Perna, 2016) and globalization (Stromquist & Monkman, 2014). The competition (Pucciarelli & Kaplan, 2016) for higher education enrolments between universities has therefore increased. Access is more readily available (Engstrom & Tinto, 2008) to prospective students, although many students choose the community university close to their home or the one that their parents (Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996) had attended. However, institutions also have different placement and admission policies (Lui, 2012), missions and programs for students entering tertiary education for the first time. At many institutions, secondary school grade marks (Darling, 2015) and extracurricular performances are commonly used as a measuring tool for access. These achievements, together with the non-cognitive information such as first-generation and socio-economic status, the financial ability of students and the distance from home (Darling, 2015, p. 89) determine whether a student is placed in university-owned accommodation, or whether the student would have to live privately in non-university-owned accommodation or with parents and family, thus having to commute daily. As stipulated in section 2.3.1, commuter students' demographics have changed, they have become more diverse (Astin, 1993b; Smith, 2015) and in order to cater for the growing numbers of commuter students, universities need to accommodate them in the drafting of their missions and policies and when programs are being planned (Jacoby, 1989). The *mature* commuter students have even more challenges regarding their work, family and social lives (Darling, 2015), and their expectations, motivations and experiences (Kahu et al., 2013), and therefore differ from that of traditional

students on campus. If institutions do not recognize the needs of the commuter students in the institutional processes, it might become a barrier to their engagement and persistence and could lead to attrition (Darling, 2015).

The *driving commuters*, however, experience challenges which are associated with the time and effort that they devote to learning, because they experience more stress and a lost of time for learning when they commute (Newbold, 2015). When they arrive on campus they do not always get proper parking, or sometimes they experience bad weather conditions or safety issues (Weiss, 2014). Entering class, their connection with their peers and faculty (Dwyer, 2015) does not happen spontaneously. Older and mature students tend to ask more questions in class and connect more easily with lecturers and other staff than younger students (Kahu et al., 2013). The younger students also do not want to sit like spectators in classes. Being spectators, however, causes a disconnectedness and students do not attend classes – which concomitantly reflect in high attrition rates (Gilardi & Guglielmetti, 2011; Tinto, 1987). These students are also technologically (Kuh, 2009; Thomas, 2010) more connected and therefore want to engage in active, collaborative learning (Bloomquist, 2014). The growth in technology with regard to online courses are also spreading the field, which makes it easier for commuter, older and more mature students to engage in learning.

When institutions make an effort to address these challenges, they need to evaluate their means of assessment (Hornsby & Osman, 2014), because students do not always have internet at home and therefore cannot do assignments, tests or tasks online (Weiss, 2014). As a result, they have to stay on campus for longer periods of time. Access to facilities and staff (Jacoby & Garland, 2004) are therefore required for longer periods during the day, thus needing access also to dining halls (Lomas & Oblinger, 2006), study spaces, libraries (Newbold, 2015) and social areas where they can meet with their peers and lecturers outside the classroom (Jacoby & Garland, 2004). These areas form learning communities (Kuh, 2016; Zhao & Kuh, 2004) where the curriculum can be integrated into the co-curricular spaces, which positively relates to commuter student engagement, particularly in the co-curricular environments.

The relationship that exists between the structural and psychosocial influences also affects commuter student engagement.

2.3.3 Psychosocial influences

The *psychosocial influences* refers to the relationship that exists between the social environment and the student's thoughts and behaviour in the same environment. Commuter students need to be academically and socially supported by their institutions to be able to fully engage with their learning environments and to complete their degrees (Kuh, 2016). The high academic expectations (Tinto, 2012) and the workload that lecturers demand (Kuh, 2009) from students, together with the students' desire to perform, their intrinsic motivation (Newbold et al., 2011; Reid-Cunningham, 2008), their self-belief (Kuh, 2009) and courage to continue positively or negatively influence their academic and social engagement. Engagement is positively related to academic performance (Tinto, 2012), higher test results and skills acquisition (Mok & Neubauer, 2016). Not only does engagement relate well with cognitive processes, it also relates positively with the interest (Newbold et al., 2011), determination, perseverance, self-regulation (Sidelinger, Frisby, & Heisler, 2016), attitude and social skills (Mok & Neubauer, 2016) of commuter students.

The attitudes, professionalism and support that lecturers and other staff members (Kuh, 2009) offer to commuter students can give them a sense of belonging (Kane, Chalcraft, & Volpe, 2014; Pokorny, Holley, & Kane, 2016). A *sense of belonging* (Bloomquist, 2014) refers to a basic human need when the student feels that he/she is valued and supported to cope with the academic and social demands of a university. To enjoy what they are doing (Hoffman, 2014, p. 15), commuter students want to experience the warmth and respect of lecturers (Komarraju, Musulkin, & Bhattacharya, 2010), other staff, mentors (Crocitto, Walsh, Murphy, & Keefe, 2017) and their peers to enable them to successfully integrate into the social and academic environment. The *social integration* of commuter students into learning environments mostly happens in informal settings with peer groups outside the classroom, or during their engagement in extra-curricular activities (Dwyer, 2015; Tinto, 1975). However, the informal contact that these students have with lecturers and other staff outside the classroom (Pascarella et al., 2005) also positively influences their persistence (Komarraju et al., 2010).

Since commuter students form the majority of the student population, higher education institutions have to rethink their institutional practices to successfully engage with this

group of students, and to improve the integration of the academic and social lives of the commuter students.

2.3.4 Commuter student engagement

If the basic needs, as explained by Maslow's hierarchy of needs (1943), are not met, commuter students will not be able to be academically or socially engaged or to be able to meet the demands of the institution. When students feel safe, being cared for in terms of food, transport and accommodation and when a sense of 'I belong' is experienced (Bloomquist, 2014), they feel that they matter to the institution and to the campus community (Marshall, 2001; Tovar, Simon, & Lee, 2009). In return, they seek a connection with the campus and its community (Jacoby & Garland, 2004). This further relates to wider participation in the educational activities offered by the institution and therefore more time spent on academic and social engagement.

Trowler and Trowler (2010, p. 9) posit that the "value of engagement is no longer questioned". *Student engagement* is the time and effort that students devote to educationally purposeful activities and refers to the energy (Astin, 1984; Webber, Krylow, & Zhang, 2013) that students spend on the activities and their courage to continue. It is also a combination of the psychological state of engagement which entails the intrinsic emotional state of the commuter student, the psychological investment (Cole & Korkmaz, 2013), the effort that the student put into learning as well as the mastering of skills. It also includes the commuter students' commitment (Burlison, 2015) and the will to succeed or perform well. These intrinsic motivations (Newbold et al., 2011) refer to the behaviour towards learning and socialization that arises from the individual and that contributes to personal rewards. Kuh, Kinzie, Buckley, Bridges and Haylek (2007, p. 44, in Quaye and Harper, 2014) declared that:

student engagement is how the institution deploys its resources and organizes the curriculum, other learning opportunities, and support services to induce students to participate in activities that lead to the experiences and desired outcomes such as persistence, satisfaction, learning, and graduation.

Furthermore, the interest that commuter students have in the curriculum can either positively or negatively affect student engagement. Their academic achievements are

directly responsible for the degree of satisfaction (Diener, Inglehart, & Tay, 2013; Webber et al., 2013), which results in the emotional attachment that commuter students form with the academic and social environment of the institution and also whether they will persist to graduation (Trowler & Trowler, 2010). Trowler and Trowler (2010) included a few aspects of engagement as positive contributors to the learning outcomes of these students, including the “academic challenge”, the out-of-class “interaction with staff”, their “participation in extracurricular activities”, “living on campus” and the “participati[on] in a learning community” as well as the relationship “with diverse peers” (p. 8).

How commuter students experience the institution is also deeply rooted in the socio-cultural context, as seen in the framework (Kahu, 2013), and is influenced by the characteristics of the student, which include the “social norms, customs, reputation, traditions, and demographic composition” (Jacoby, 2000b, p. 8), and the characteristics of the institution. The characteristics of the institution encompass the environment that is either supportive, inviting, stimulating and caring, or non-supportive, when students are excluded, when they perceive the environment as unfriendly or when it causes anxiety (Jacoby, 2000b, p. 8). Both these characteristics influence the engagement of commuter students positively or negatively.

Commuter students also experience the direct consequences of engagement, as seen in the *proximal consequences*.

2.3.5 Proximal consequences

The *proximal consequences* are manifested in the academic knowledge that commuter students acquire during their time of study (Kahu, 2013). The standard and quality of their educational experience (Schendel & Mccowan, 2016) are measured by institutional throughput rates (Trowler, 2010), and this causes pressure from the side of the university as well as from families. In many cases commuter students are first-generation students. First-generation students generally refer to students whose parents have a high school education or less, but with no experience of tertiary education, with the student being the first from the family to attend university (Terenzini et al., 1996). This means that first-generation commuter students’ “expectations, planning, or their college choice process” as well as the “anxieties, dislocations” (p. 2)

and cultural, social and academic transition challenges, greatly influence their persistence at the institution. To accommodate these students, academic mentors are allocated (Darling, 2015) to them, who have a strong effect on the academic success if the process happens effectively. They play a pivotal role in the academic adaptation of the students, their transition from school to university (Wardley & Bélanger, 2013; Wood, Gray-Ganter, & Bailey, 2016) and also in identifying the students who are at high risk of failing (Jacoby, 1989). Darling (2015, p. 87) explains that this process is “learning-centered”, that it focuses on the relationship between the mentors and the student and that it involves systematic processes to reach their educational goals and to assist them in future studies.

Commuter students’ engagement is also influenced by the habits of institutions (Kahu, 2013) as traditional habits mostly favour the dominant cultural group, who predominantly live in residences. This results in poor retention rates of the non-traditional and minority commuter students, because they already experience a culture shock when entering the university. It results in students becoming disengaged with the university, because they feel alienated (Ostrove & Long, 2007) and isolated and fear that they might fail (Clark, 2006; Newbold et al., 2011). Jacoby (1989) argued that commuter students’ success primarily depends on how they experience the institution, their interactions with peers, staff and academics and their satisfaction with the institution, and, lastly, their involvement on campus. Tinto (1975) contended that students who are involved in their studies and committed to reach their goals, integrate more easily into their academic communities and have the ability to self-regulate their learning. These students will also connect with lecturers by emailing them, asking questions when in doubt about academic work, which will consequently lead to satisfaction and which, in return, leads to higher persistence rates (Sidelinger et al., 2016).

Jacoby (1989) continued by making *suggestions* to universities on how to integrate commuter students on campus, namely to express their commitment by changing their mission statements; to articulate from top management their educational and institutional commitment to commuter students; to collect regular data to improve the experience of commuter students; to rectify misconceptions about commuter students; to understand the interrelationship between the curricular and co-curricular

environments, and also to use technology to communicate clearly (Hintz, 2011) with commuter students in order to enhance their success and to support them with the challenges and concerns that they are facing. According to Davidson and Wilson (2016, p. 8), commuter students are constantly making decisions to persist in higher education or to dropout, based on the on-going changes in their personal and university lives. This, however, is not related to their inability to complete their studies or to their intrinsic motivation, it rather refers to their holistic development (Schieffer & Lessem, 2014), life roles (Kuh et al., 2001) and experiences that are changing. When commuter students feel emotionally attached to and satisfied with the institution, they want to stay longer (Lomas & Oblinger, 2006). Terenzini and Pascarella (1977), supported by Tinto (1975), stated that commuter student persistence and success are directly related to their integration into the social and academic spheres on campus. Better integration leads to higher persistence rates (Tinto, 2006), and in return this positively influences the economic growth and productivity of the workforce in the country (Price & Tovar, 2014).

The economic growth of the country concomitantly improves the social and economic mobility (Marginson, 2016; Ostrove & Long, 2007) of middle- and low-income groups (Marginson, 2016), which has a positive influence on the circumstances families are living in. Simultaneously, the widening of access to tertiary education (Gumpert et al., 1997) and the provision of financial assistance (Tinto, 2012) to non-traditional students make it possible for more such students to enrol at higher education institutions. Economic growth has further put emphasis on the societal changes (Ostrove & Long, 2007) that accompany the financial well-being of communities in a country and has also caused a demand for specific skills from the labour market (Price & Tovar, 2014). Mok and Neubauer (2016) argued that commuter students must have the necessary skills and intellectual knowledge to cope “with the challenges of the globalizing economy” (p. 2) when leaving the university.

These skills and knowledge add to the broader development of commuter students as it forms part of the distal consequences of engagement.

2.3.6 Distal consequences

In this study the term *distal consequences* refers to the holistic development of students as an indirect result of student engagement and it includes the image of, and the assumptions and beliefs that students have about the university, as well as their practical involvement and participation in the educational activities of the university (Kahu, 2013). In this context, it further refers to the indirect consequences, arguing that graduating is more than getting a degree (Ostrove & Long, 2007). It involves the life skills (Marginson, 2016) and personal development that took place during the educational experiences of the commuter students. The personal development and social abilities that the students gain from their educational experience involve “ethical development, appreciation for diversity, understanding of self, community awareness, citizenship, inquiry, and getting along with others” (Kuh et al., 2001, p. 8). These skills (Schieffer & Lessem, 2014) are not only acquired in the academic environment, but also in the co-curricular spaces where students learn from conversations (Nelson et al., 2014) with diverse groups of students (Jacoby, 2014; Torres, Howard-Hamilton, & Cooper, 2011). It further contributes to forming the identity of the students involved (Jacoby, 2015), and to their learning of how to actively voice their opinions in the workplace and in a challenging, rapidly changing world.

As active citizens, commuter students positively impact the community (Kisker, Newell, & Weintraub, 2016) in which they operate. Therefore institutions and communities should engage students in their governance (Hu, 2011; Newbold et al., 2011) and decision-making processes (Teichler, 2013) or in the community affairs of society (Johnson-Hakim et al., 2013; Kisker et al., 2016), in order for them to better understand and address the challenges of the changing environments. The skills that the students gain through engagement, and the habits that they acquire by connecting with lecturers and peers, help to develop the notion of lifelong learning (Sidelinger et al., 2016) – which is also associated with positive graduate attributes (Barrie, 2007; Hughes & Barrie, 2010) – and which are obtained in learning communities that assist students to live successfully in the world. These attributes refer to the “qualities, skills and understandings a university community agrees its students should develop during their time with the institution” (Bowden, et al., 2000, cited in Barrie, 2007, p. 440). Teichler

(2013, p. 310) concluded that higher education therefore “shapes the future life and the future activities of university graduates”.

To contribute to the future life and activities of graduates, learning spaces at universities assist commuter students with their mentioned challenges and needs, and this will now be elaborated upon.

2.4 LEARNING SPACES FOR COMMUTER STUDENTS

Research has indicated that living on campus is more strongly related to better academic results, better social and academic integration and higher rates of persistence (Long, 2014; Terenzini et al., 1999) than living off-campus. The socio-cultural and educational factors that trigger the development and well-being of commuter students highlight the necessity of engagement in learning spaces (Bennett, 2011; Sutherland & Ladkin, 2013) where student communities are formed to increase academic, social and cultural engagement.

Learning spaces often refer to a physical learning environment (Cleveland & Fisher, 2014) that can be used for quiet study, passive and active learning, training, meetings and social activities in which students can meet their peers and build relationships within a diverse student community (Bennett, 2011; Sutherland & Ladkin, 2013; Temple, 2008); a space where they can take control of their own academic and social living and learning experience (Bennett, 2007, 2011). Between or after classes, commuter students normally navigate their way to social and academic spaces that appeal to them and they will often visit it, because they find it comfortable, and this creates a learning community where informal learning happens (Lomas & Oblinger, 2006). Weiss (2014) elaborated by emphasizing that commuter students need spaces on campus where valuables can be stored, where they can connect with peers and study or prepare for classes, instead of hanging out in libraries, cars, campus jobs or faculty buildings. Lomas and Oblinger (2006) believed that commuter students will stay longer on campus and in learning spaces that are user-friendly, well-designed and where their needs are being understood. Therefore these spaces need to be evaluated for their effectiveness. Zimmerman and Martin (2001, p. 169) argued that spaces can positively or negatively influence institutional initiatives, and by determining the

outcome of initiatives through evaluation, informative information can support “the goal of continuous improvement”.

Stevens (2000, pp. 72-77) captured information from different universities that have incorporated living and learning programs to integrate commuter students into their living environments. Other examples include the **University of Maryland**, College Park's Transfer and Off-Campus Student Life Office (TOCSL) located at the Stamp Student Union that serves to connect and engage transfer and off-campus students. The TOCSL Office run different events and programs to help other off-campus students become connected to the community and meet other University of Maryland Distance (UMD) students. These programs include: Good Morning Commuters (a free breakfast for all commuting students); New Welcome (held at the beginning of the fall and winter semesters to help welcome our newest transfer and off-campus students and help them get to know current students); and TOCSL Meet-Ups (such as a Game Night, trip to Fright Fest, information workshops) (Transfer and Off-Campus Students: tocsl@umd.edu). At the **California Lutheran University** Office of Student Life more programs were brought into the co-curricular engagement of commuter students and a peer mentor program was created for their transfer students (Kinzie, et.al., 2017). In 2013, **Monash University** in Melbourne, Australia developed the Monash Non-Residential Colleges program to support their non-residential students. Two colleges were created, with advisors who act as mentors to newcomers. Training is also provided to the student leadership teams. Due to their popularity, the two colleges were expanded to seven, distributed over three campuses. Each college has more than a thousand members and more than a hundred advisors (Fernandez, et.al., 2017).

Stevens (2000) proposed some practices to invite commuter students into these learning spaces which would positively influence their participation. These include full-time access to the facilities, proper student governance, timeous communication via emails, door-to-door, flyers, websites, bulletin boards and social networking groups in order to improve shared institutional knowledge (Hintz, 2011), proper parking, as well as appropriate scheduling of courses and extra-curricular programs. Many other researchers (Bennett, 2007, 2011; Clark, 2006; Hintz, 2011; Jacoby & Garland, 2004; Lomas & Oblinger, 2006; Weiss, 2014) also emphasized the importance of learning spaces in the learning behaviours of students.

2.5 CONCLUSION

This chapter articulated the worldwide trend of massification, the conceptualization of commuter students and the socio-cultural influences and consequences on student engagement according to the student engagement framework. This framework was used to give higher education institutions a shared understanding of how to overcome the challenges and concerns that commuter students face, and how to improve commuter student success. The chapter concluded with the explanation of what learning spaces entail and what universities in other parts of the world have done to address the needs and concerns of commuter students.

The following chapter will explain South African perspectives on student access and success, with specific reference to commuter students.

Chapter 3

NATIONAL PERSPECTIVES ON STUDENT ACCESS AND SUCCESS WITH SPECIFIC REFERENCE TO COMMUTER STUDENTS

3.1 INTRODUCTION

Chapter 2 focused on massification of higher education internationally and gave examples of how access to higher education expanded in many countries across the world, specifically in the US and in Africa. Conversely, after the fall of apartheid in South Africa (SA) (CHE, 1999), a decline of 7% (41 000) in student numbers occurred, specifically between 1998 and 1999. This meant 26 000 less full-time enrolments, with a fundamental socio-economic impact, because the “labour market trends predict a sustained growth of 5% in the demand for high level skills” (p. 4). This chapter explores the phenomenon of massification in the South African context. Whereas some similarities with other countries are noticeable, as far as growth in student numbers is concerned, there are also a number of differences in the manner in which massification has manifested in the South African higher education system. These differences will be highlighted with particular attention to student access and success.

Against this background, this chapter also focuses more specifically on the implications of massification for commuter students. National perspectives on commuter student needs, access and success, learning spaces for commuter students and what universities in South Africa have done thus far to address the matter are also discussed.

3.2 THE SOUTH AFRICAN HIGHER EDUCATION CONTEXT

South Africa has a long history of colonization that started with Dutch colonization from 1652 to 1806, followed by British colonization from 1806 to 1834. Even during this era South African society was characterized by racial segregation. This was, however, legislated by apartheid, which refers to a policy that separates and discriminates on the basis of “race and ethnicity” (Cloete, 2004, p. 2), introduced by the National Party

(NP), that governed South Africa from 1948 until 1994 (Clark & Worger, 2011, 2016). Between 1948 and 1993 segregation and separation were key characteristics of government policy (Mdepa & Tshiwula, 2012). Education became a powerful tool to give effect to apartheid policy, differentiating between Christian National Education (CNE) for white children and Bantu education for black children. As part of the implementation of this policy, the NP adopted the Bantu Education Act in 1953 (Fiske & Ladd, 2004, p. 1). This Act precluded Africans⁸ from attending 'white' schools and prohibited African teachers from criticizing school authorities and the government.

At the level of higher education the NP government proceeded to establish 36 HEIs, governed by eight different departments. New universities were established in accordance with the *Extension of University Education Act* of 1959 to cater for the various race groups. Before 1994, universities were not only racially segregated into historically white and historically black institutions, but the historically white institutions were further separated on the basis of language. The white *English* universities had an Anglo-Saxon historical tradition and the white *Afrikaans* universities had a Dutch and German philosophical and theological tradition (Bitzer, 2009b, p. 11). The so-called 'white' universities could only allow black students with ministerial permission.

In 1984 (Cloete et al., 2005, p. 60) the NP introduced a new constitution for the Republic of South Africa (RSA). It divided the national parliament into three chambers: the House of Assembly for white voters, the House of Representatives for coloured voters and the House of Delegates for Indian voters. No provision was made for representation of black voters in the South African parliament, although they represented more than 75% of the population at the time. The NP further divided the parliament into 'own affairs' and 'general affairs'. Own affairs included all matters related to education, housing and social services for the white, coloured and Indian communities, whereas general affairs included all matters regarding education for blacks in the RSA.

By 1985 (Cloete et al., 2005, p. 61), 19 higher education institutions were appointed for whites only, two for coloureds only, two for Indians only and six for blacks only. In addition, ethnic universities were established in the so-called 'republics' (self-

⁸ In the apartheid context, Africans included black, coloured and Indian people.

governing territories) of Transkei, Bophuthatswana, Venda and Ciskei (also known as the TBVC countries).

As far as institutional type was concerned, HEIs were differentiated into universities (providing traditional academic education) and technikons (providing technological training). Both types of institutions were controlled by eight different government departments (Bunting, 2006a, p. 38), as is seen in Table 3.1.

Table 3.1: Number of public higher education institutions in South Africa, 1990-1994

Responsible authority	Universities	Technikons	Total institutions
House of Assembly (for whites)	11	8	19
House of Representatives (for coloureds)	1	1	2
House of Delegates (for Indians)	1	1	2
Department of Education and Training (for Africans)	4	2	6
Republic of Transkei	1	1	2
Republic of Bophuthatswana	1	1	2
Republic of Venda	1	0	1
Republic of Ciskei	1	1	2
Totals	21	15	36

Source: Cloete (2006, p. 39)

By 1986, the total student enrolment numbers at technikons constituted of 7% African and 83% white, whereas enrolment numbers at university level were 23% African and 64% white (NCHE, 1996, p. 32). In the period between 1986 and 1993 African enrolments, increased at an average annual rate of 14%, whereas white enrolments increased by 0.4%. During the same period, the total student enrolments at universities and technikons increased by an annual average growth rate of 8% (p. 32).

In 1990, 96% of the enrolments at the six *Afrikaans-medium universities* were white, declining somewhat to 89% in 1993. Black students could enrol for only a few courses once a permit was issued, and in most cases this was confined to postgraduate qualifications (Cloete et al., 2002). Historically *white Afrikaans-medium universities* were financially supported mainly by government and the private sector. Few attempts were made to approach international sponsors, which made the six institutions

dependent on tuition fees of students (mainly white students) and private organisations that had ties with the apartheid-government (Bunting, in Cloete et al., 2002, p. 67).

The four *historically white English-medium universities* opposed the government's apartheid policies, and insisted that anyone who qualified for admission could enrol for any of their appropriate courses. The student enrolments in the different institutional types, in 1990 and 1994 (Cloete et al., 2005), are presented in Figure 3.1 below. According to Bunting (2006b), the rapid growth rate that occurred between 1990 and 1994 created the circumstances that helped to shape the first intervention attempts when new higher education policies were to be established between 1994 and 1997. He continued that the racial and gender inequalities that existed at the time, and the composition of the higher education system, did not add value to the “social and economic reconstruction in a post-apartheid South Africa” which therefore challenged policy-makers with “systemic problems” (p. 96).

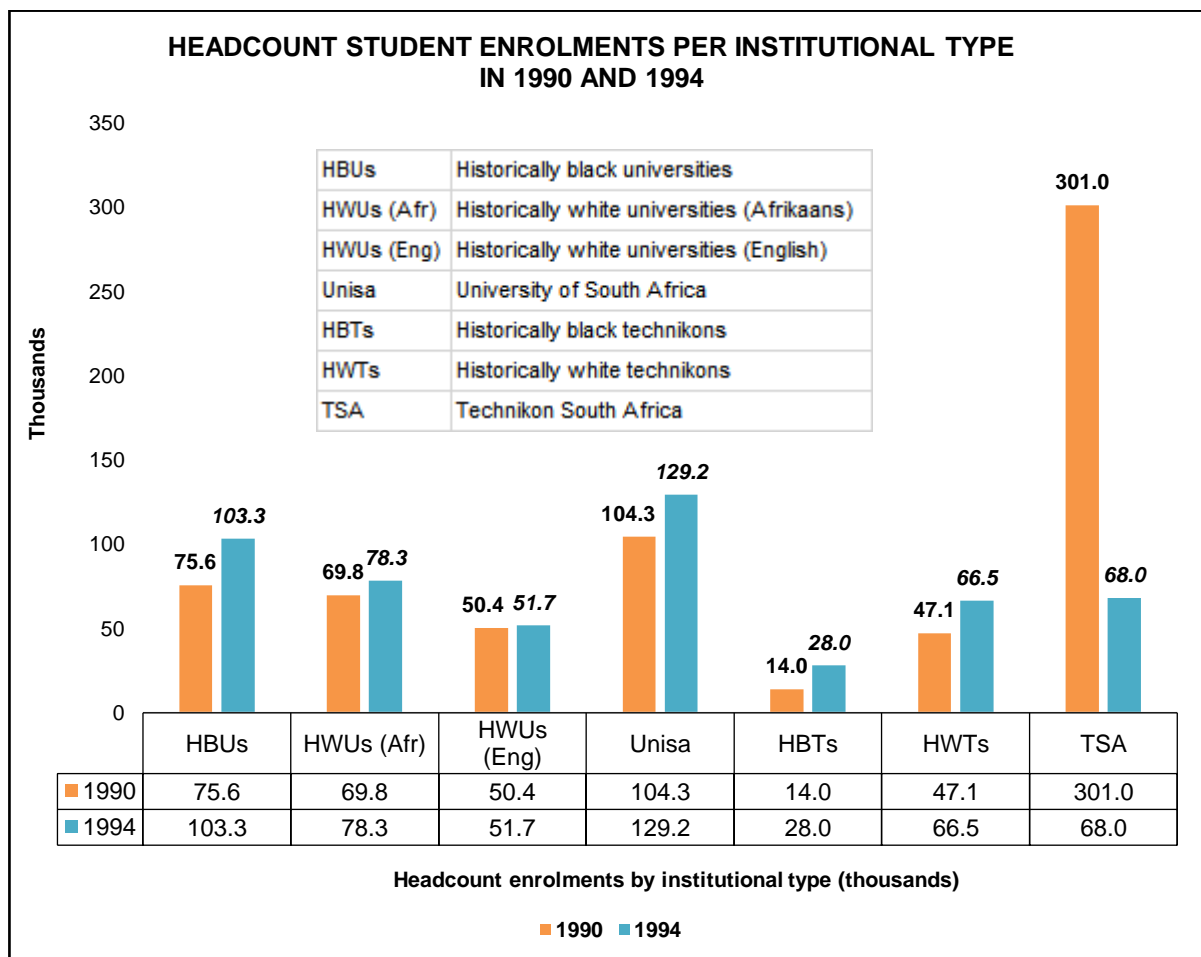


Figure 3.1: Headcount enrolments by institutional type (thousands), 1990 & 1994

Source: Bunting, in Cloete et al. (2005, p. 150)

The inequalities in participation between the different race groups, as seen in Figure 3.1, were cause for concern for the policy-makers. When looking at Figure 3.2, it is necessary to see the proportions in context, where whites formed 13% of the total population at the time, and blacks more than 75% (Bunting, in Cloete et al., 2005, p. 151). The very low participation rates in higher education of blacks (9%) and coloureds (13%) are illustrated in Figure 3.2. Whites had a disproportionately high participation rate of 70%.

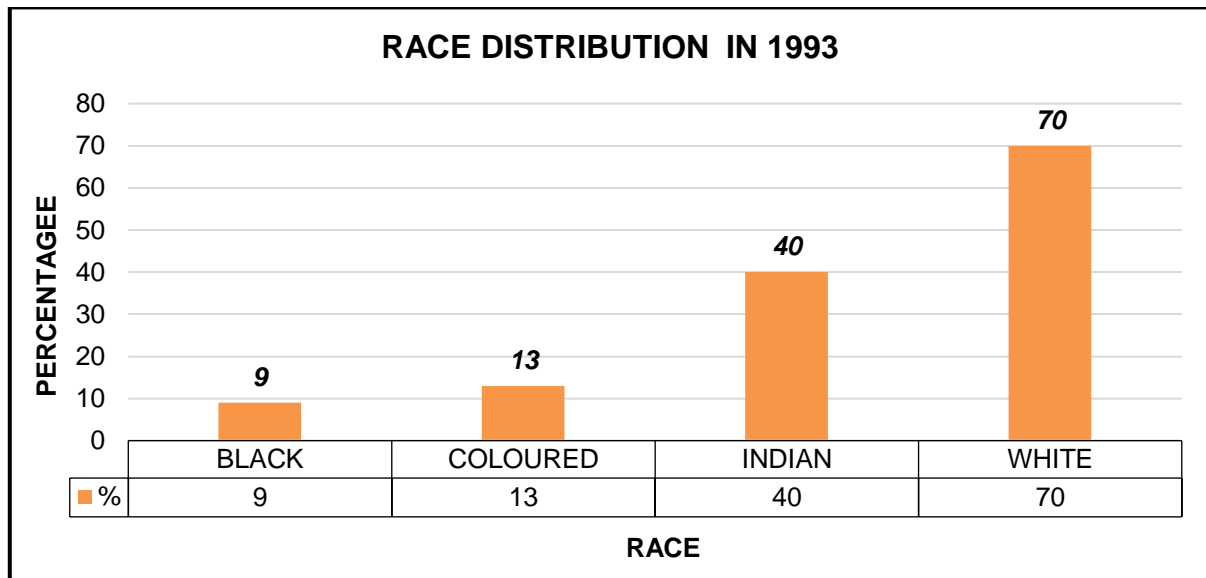


Figure 3.2: Gross participation rate⁹ in the public higher education system, 1993

Source: Bunting, in Cloete et al. (2005, p. 151)

The apartheid system started to crumble in the mid-1980s (Fiske & Ladd, 2004), because of the mass resistance against it within SA, international pressure and boycotting, as well as economic circumstances (Zunes, 1999). Then, on 10 May 1994, Nelson Mandela, the first president of the democratic SA, was inaugurated outside the Union Buildings in Pretoria. Under his leadership the Constitution of the new nation was adopted and finally approved in 1996, proclaiming “the right to basic education, including adult education” (Fiske & Ladd, 2004, p. 2). No discrimination on the basis of “race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture, language or birth

⁹ Based on enrolments in higher education as percentage of the population between 20-24 year old, according to the UNESCO definition.

according to the Bill of Rights entrenched in the Constitution”, underpinned the new educational freedom for all race groups in SA (<http://www.education.gov.za>).

In the context of the history of South Africa and its higher education system, student access and participation in pre- and post-1994 South Africa, will be discussed next.

3.2.1 Student access and participation in apartheid South Africa

In the 1980s, access to higher education by black students became a major issue. In 1986, of the students enrolled at technikons 7% were black and 83% were white, whereas at universities 23% were black and 64% were white. Although a significant growth in black enrolments occurred between 1986 and 1993, the composition still reflected the apartheid legacy (NCHE, 1996, p. 32). Black enrolments increased at an annual rate of 14% between 1986 and 1993, compared to 0.4% growth of white students in the same period. The total student enrolments at technikons and universities increased with an annual growth rate of 8%, of which many enrolments came from historically black universities (10%) and distance learning (NCHE, 1996, p. 32). The growth at historically white universities was low at an annual increase of 1.5%. The increase in numbers, however, did not result in a significant change in the racial balance, as was seen in Figure 3.2.

According to Bunting, in Cloete et al. (2002, pp. 149-150), three remarkable changes happened in the enrolment patterns of institutions between 1990 and 1994. Firstly, the enrolment numbers of universities and technikons jointly grew with more than 130 000 (33%) in 1994, in comparison to 1990. Secondly, between 1990 and 1994, a growth of 28 000 (37%) were seen at historically black universities, whereas a combined (Afrikaans and English) total growth of only 10 000 (8%) were seen at historically white universities. Thirdly, all technikons grew in numbers, of which the most significant growth occurred at Technikon South Africa (TSA), namely 38 000 (126%) between 1990 and 1994. The historically white technikons grew by 19 000 (41%) and historically black technikons by 11 000 (60%).

In the same period, between 1990 and 1994, no further crucial transformational decisions regarding higher education were made. Waghid (2002, p. 458) expressed his opinion about the education system of SA pre-1994 as follows:

The system of apartheid seriously affected the nature of educational provision and order in South Africa. It ensured that South Africans were schooled in segregated environments. This meant that every level of schooling was cast in a racial mould; educational budget provisions, the structure of educational bureaucracies, the composition of staff and pupils in schools (and universities), the kind of curriculum followed, and the ethos prevalent in schools.

The political pressure on higher education in the 1980s, increased in the 1990s. Student participation and access post 1994 will thus be discussed in the following section.

3.2.2 Student access and participation post 1994

In the new democratic South Africa massification of higher education was seen as an important mechanism to create equal opportunities for all the people of South Africa. The massification and widening access that happened in higher education internationally since the 1980s, only reached South Africa (SA) after 1994 (Bundy, 2004). Post apartheid higher education in South Africa became more diverse, differentiated and representative of race and gender, and the enrolment patterns reflected a major shift (CHE, 1999). The growth in numbers of non-traditional students that came from disadvantaged environments and who were kept from tertiary institutions pre-1994, brought “radical implications for those working to make access to South African institutions more equitable” (Boughey, 2003, p. 67).

In 1995, the National Commission on Higher Education (NCHE) was appointed to address apartheid legacies and to align higher education with best practices and experiences in the international arena (Cloete et al., 2002). The NCHE report of 1996 then formed the basis of the Education White Paper 3 of July 1997: A Program for the Transformation of Higher Education, that envisioned a “transformed, democratic, non-racial and non-sexist system of higher education” (Cloete & Bunting, 2000).

According to the Report of the Council on Higher Education (CHE) “in 1999, 52% of students in universities and technikons were female, compared to a proportion of 43% in 1993. In 1999, 59% of all students in universities and technikons were African and

only 29% white, compared to the 1993 proportions of 40% for African students and 47% for white students (p. 4).” The proportion of African students enrolled in universities, according to Cloete et al. (2002, p. 415) “increased from 32% in 1990 to 60% in 2000 and 60% in the technikons”. This signified the ‘freedom of choice’ obligation, namely that the students could apply at any institution of their choice. Between 1990 and 2000, female enrolment numbers also grew three times faster than male enrolment numbers. In 1990, female enrolments at university and technikon levels formed 42% of enrolments, while in 2000 they had grown to 53% (Cloete et al., 2005, p. 171).

In Figure 3.3, the headcounts per race as a percentage of the specific race population in SA from 2005 to 2010 are presented.

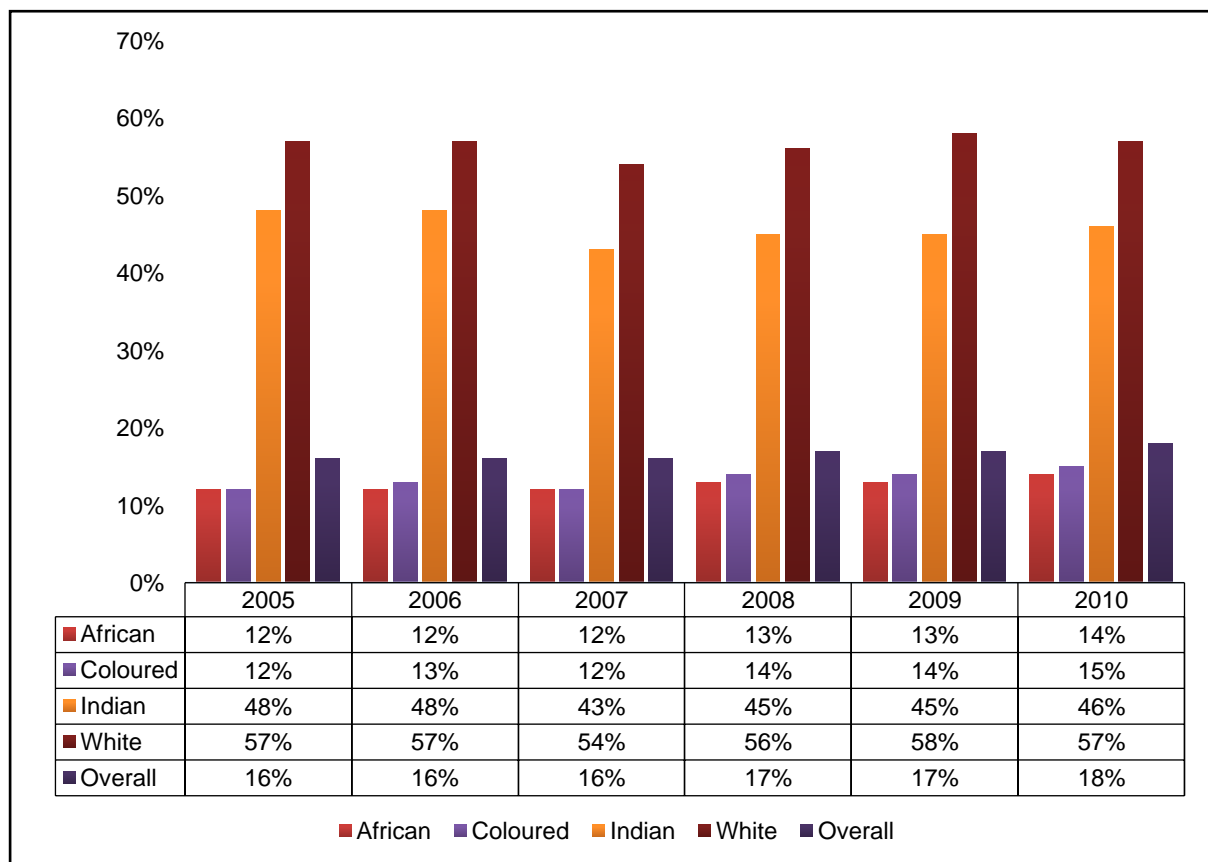


Figure 3.3: Headcount enrolments by race, 2005-2010

Source: Vital Stats 2010 (CHE, 2012, p. 4)

In Figure 3.3, African enrolments at higher education institutions indicate a marginal growth of 12% in 2005 to 14% in 2010. Coloured enrolments grew from 12% in 2005

to 15% in 2010, whereas Indian enrolments declined from 48% in 2005 to 46% in 2010. White enrolments remained the same at 57% in 2005 and in 2010. The overall growth rate, however, increased marginally from 16% in 2005 to 18% in 2010.

Policy documents that were put in place to give effect to the government's commitment to higher education included: the *Higher Education Act* (1997 and amended thereafter), the *National Plan for Higher Education* (2001) and the development of a new *Funding Framework* (2003) (CHE, 2016a, p. 58). Although access to higher education was broadened, particularly for previously underserved population groups, the overall participation rates in the South African higher education system remained at 16% in 2005. Inequality, unemployment and poverty remained predominant with a national unemployment rate of 25,2% in 2013 and the highest levels of inequality in the world persisted (Stromquist & Monkman, 2014, p. 267). These facts were reflected in higher education, as higher education in SA was strongly characterized by social inequalities that included "social, political and economic inequalities of class, race, gender, institutional and spatial nature" (Cloete, 2004, p. 1). Jansen (2004, p. 301) noted that race would not be the biggest problem for South African higher education but:

the background class and regional character of students at urban institutions are strengthened and deracialised while rural universities remain marginalised in terms of institutional capacity, racial character and class status. The problem for urban institutions ... will be the complex task of transforming institutional cultures in ways that are more inclusive and accommodating of the statistical diversity of their student populations.

Thus, the pressure to transform higher education in SA in becoming socially equitable became more imperative, because the education and training systems were blamed for not addressing national and international economic demands, and for the lack of skills to keep up with the needs of a growing economy. The SA higher education system found itself in an environment characterized by globalization and a global economy, and was measured by the production of knowledge and information that could enable the skilled workforce to be active citizens in a highly competitive global economy (Bunting, 2006b, pp. 3-4).

The student enrolments¹⁰ from 2009 until 2014 are presented in Figures 3.4 and 3.5.

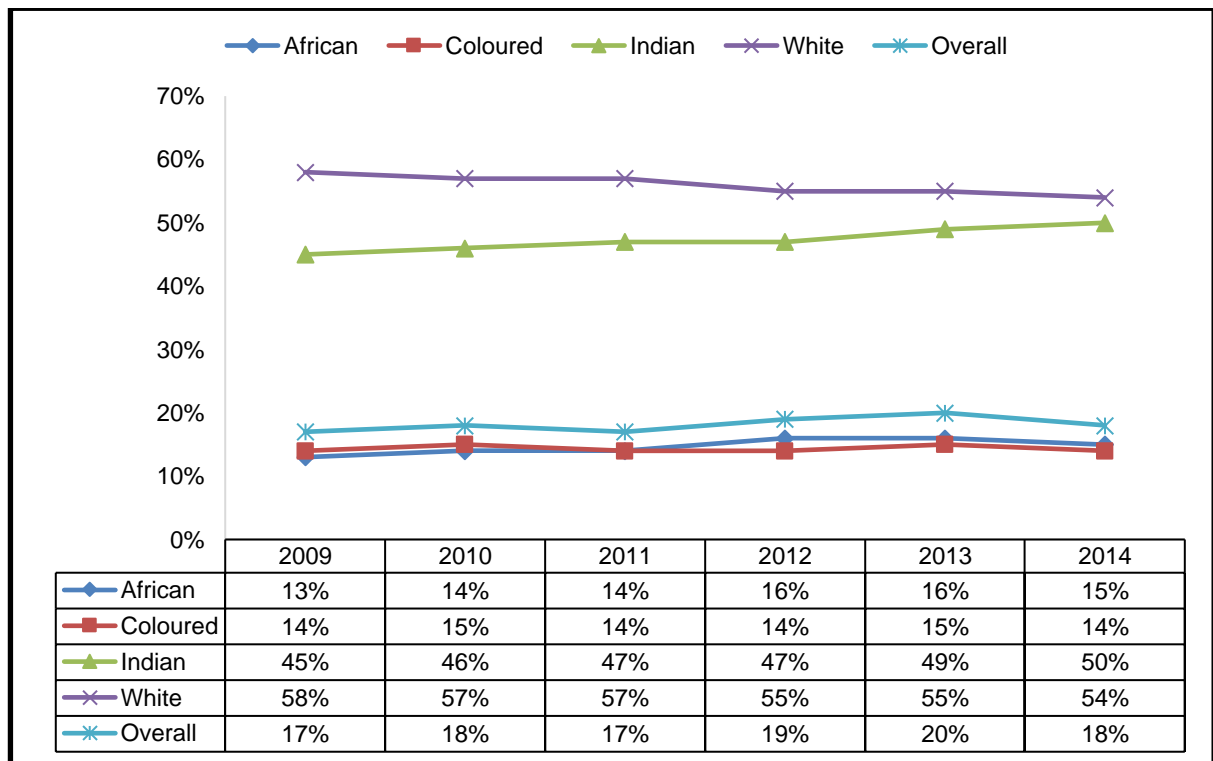


Figure 3.4: Headcount enrolments by race, 2009-2014

Source: Vital Stats 2014 (CHE, 2016d, p. 3)

According to Figure 3.4 above and Figure 3.5 below, there was a marginal growth in participation in South African higher education from 2009 to 2013, while a decline of 14 544 (2%) in participation occurred during 2014. African student enrolments significantly increased from 547 686 (2009) to 689 503 (2013), but slightly decreased to 679 800 in 2014, representing a participation rate of 15%. Coloured student enrolments increased gradually from 55 101 (2009) to 61 034 (2013) and declined to 60 716 (2014), which represented a participation rate of 14%. Indian student enrolments remained almost constant from 53 629 (2009) to 53 611 (2014), but had grown from a participation rate of 45% to 50%. White enrolments decreased from 179 232 (2009) to 166 172 (2014), representing a participation rate of 54%.

¹⁰ The 'unknown' category is not displayed, but not omitted. Rounded off percentages may not always add up to 100%. The most recent HEMIS data in this section was extracted by DHET in December 2015

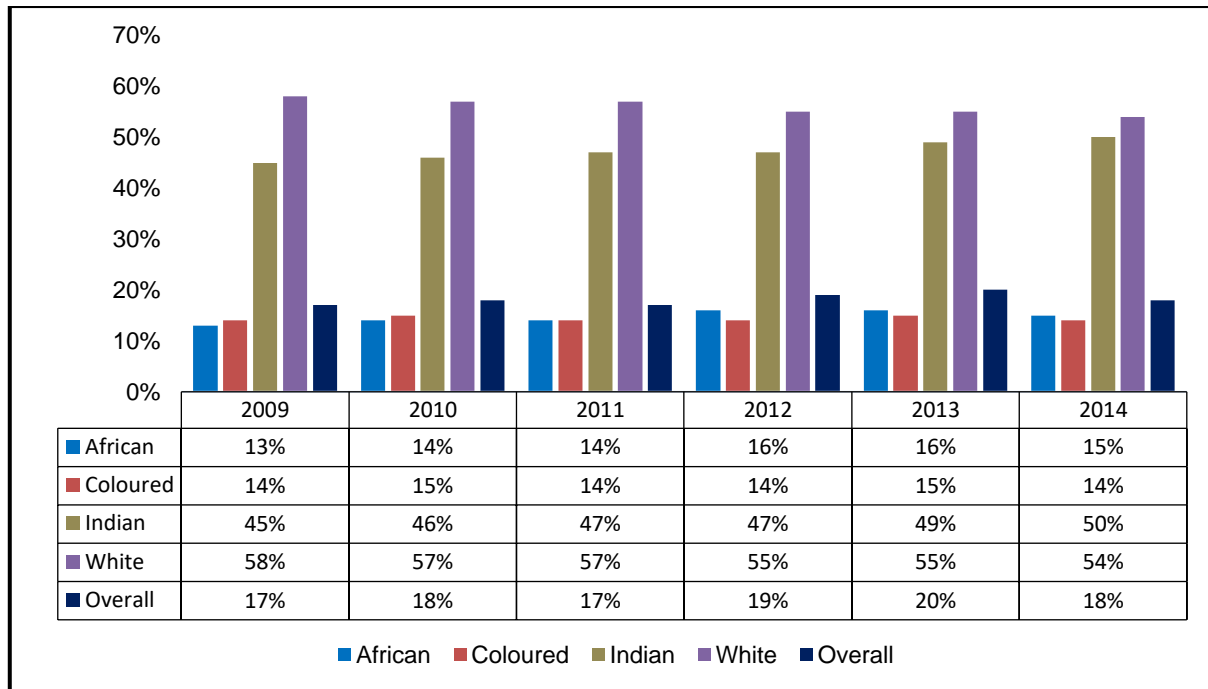


Figure 3.5: Participation rates by race, 2009-2014

Source: Vital Stats 2014 (CHE, 2016d, p. 5)

In 2014 African students represented 70% of all higher education enrolments (CHE, 2016d). One of the aims of the National Development Plan and government's 2014-2019 Medium Term Strategic Framework is, however, that all South Africans must experience high quality training and education in order to be successful. Financial support from government will also widen access to universities and colleges, because an increase of 6.3%, namely to R29 billion in 2017/18, is projected to support higher education access (Government, 2017, p. 147).

The South African mid-year population (2016) of approximately 55,91 million included a cohort of 4 874 874 (8.7%) in the 15-19 year age group and 5 315 289 (9.5%) in the 20-24 year age group, according to Statistics South Africa (Stats SA) (Stats, 2016). In 2015, according to the DHET (2017, p. 2), 1.1 million students were enrolled in public and private higher education institutions, of whom 985 212 (87%) were enrolled in public institutions. Most of these students were engaged in contact mode learning (605 480), whereas 379 732 were enrolled for distance learning. The target of the National Development Plan (NDP) is, however, 1.6 million overall higher education enrolments in 2030.

While growing their student numbers, South African higher education institutions will also have to deal with diminishing resources, financial cut-backs, declining success and throughput rates and student under-preparedness (Bettinger & Long, 2009) as a result of the secondary-tertiary mismatch that affect the biggest proportion of higher education admissions. Cloete and Bunting (2000, p. 77) argue that higher education has to face two major challenges, the first being the number and quality of students entering universities, and the second that tertiary institutions have lost momentum due to long delays in meeting the determined needs and desires of their societies. Furthermore inequalities, according to Leibowitz and Bozalek (2014), are still a reality in South African undergraduate education. They posited that, although much has been written and researched about the South African education developments, it does not mean that a significant change has happened.

Many challenges regarding student success are common in higher education in South Africa and will be discussed next.

3.2.3 Challenges with regard to student success

Student success relates directly to student retention (Nelson et al., 2014). As was discussed in Chapter 1, the demographics of the student cohort at higher education institutions have changed over time, because of widening access (Dawson et al., 2013) from a select few to a diverse (Quaye & Harper, 2014) student population of more than a million. Part-time enrolment and part-time employment also brought about challenges regarding retention and throughput. Thus, institutions had to pay more attention to cater for the diverse needs of students from different backgrounds, with different levels of preparedness and abilities (Chowdry, Crawford, Dearden, Goodman, & Vignoles, 2013), as well as individual motivations for attending university (Kahu, 2013) and educational backgrounds (Bettinger & Long, 2009). Astin (1993a) argued that the type of environment that institutions offer to fit the specific needs of their students plays a major role in student success and retention rates.

Bitzer and Troskie-De Bruin (2004, p. 119) maintain that higher education institutions have been functioning too long with the philosophical assumption that only students with the necessary abilities and skills from advantaged backgrounds will be successful, and that those students who come from disadvantaged backgrounds will have to find

something else to do after school. They believe that higher education institutions need to address the processes that will lead to successful outcomes (which are currently being expected from higher education institutions) of that diverse group of students. In order to be successful, institutions need to add value to student development by not only conferring them with a degree, but by asking (p. 119):

To what extent does a university or technikon experience unlock the untapped potential, the manifold talents, special attributes, and the powers of insight, innovation, negotiation, decision making and rhetorical skills lying dormant in the new generation of students that constitutes diverse campus populations?

Undergraduate success, persistence, throughput rates and graduation, however, remain major challenges, specifically for African students in South Africa. According to statistics (HESA, 2014), only 16% of African students that enrolled for a three-year degree graduate within the minimum number of years, 41% after six years, while 59% drop out of higher education. In comparison, 44% of white students graduate after three years of study, 65% after six years and 35% drop out.

Due to larger numbers of enrolments, the graduate output (Cloete et al., 2005, p. 171) increased from more or less 75 000 in 1993 to almost 85 000 in 2000, with their major fields of study in the social sciences and humanities, education, and business and management. In 2010 almost 1 million students were enrolled in higher education in SA, of whom 79% (2010) were African and 57% women (undergraduate), but the expansion and equity of access have not met the demands and aspirations of the NDP for higher education. The throughput rate of the African and coloured enrolments mirror participation and equity, because 1 in 4 contact students fails or withdraws before the second year of study, while only 27% of all contact students in three or four year degree programs complete their studies eventually. The racial disparities indicate that 50% more white than black students within the three and four year degree programs graduate, with a final result of 45% of contact students that never graduate. The concomitant result reflects that only 5% of the youth of SA's majority population groups succeed in any form of higher education and this causes a very slow graduate production rate. The systemic problem does not coincide with the development and

needs of a cohesive society, and a further decline in pass, retention, graduation and throughput rates are expected, because academics are not equipped to deal with the oversized diverse class groups, nor can higher education financially support training for the increased numbers of academics needed (CHE, 2016a, pp. 144-147).

The number of graduates with high level qualifications remain low. Although the NDP was accepted in November 2011, the success rate of the increased numbers of enrolments has not met the demand for high-level skilled graduates, and this has a major impact on social mobility. Cloete and Bunting (2000, p. 79) postulated that the system was “not equipping the majority of students with the skills needed for them to function efficiently and innovatively in the modern knowledge- and information-driven economy, as well as in its increasingly diverse and complex socio-cultural environment”. The DHET (2016, p. 13) further stipulated that the actual and targeted proportions of enrolments, by field of study, should aim at an average growth of 3.2% in science, engineering and technology, 0.8% in business and management enrolments, 2.5% in education enrolments and 1.1% in other humanities in the period 2014/15-2019/20.

Figure 3.6 presents the headcount graduates by age group from 2009 to 2014.

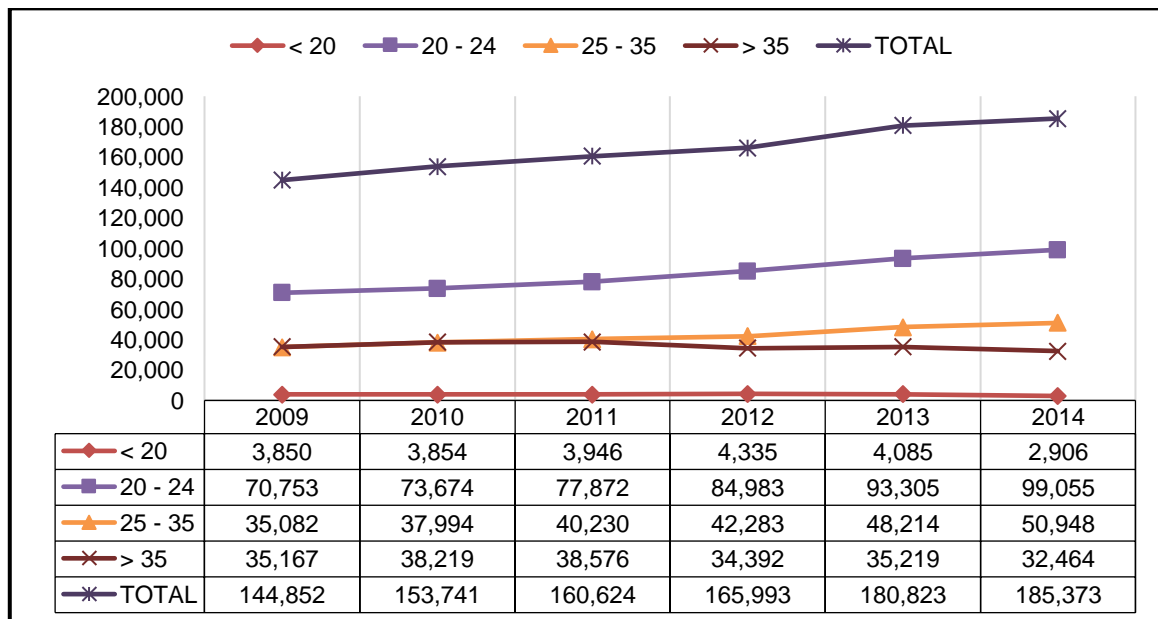


Figure 3.6: Headcount graduates by age group, 2009-2014

Source: Vital Stats 2014 (CHE, 2016d, p. 6)

Figure 3.6 illustrates that the number of graduates younger than 20 years decreased from 3 850 (2009) to 2 906 (2014). The cohort between 20-24 years increased significantly in numbers, from 70 753 (2009) to 99 055 (2014). The number of graduates for the 25-35 years cohort also increased from 35 082 (2009) to 50 948 (2014), while the graduates older than 35 decreased from 35 167 (2009) to 32 464 (2014). A total increase of graduates from 144 852 (2009) to 185 373 (2014) represents a growth of 21.8% in the number of graduates in 2014.

Figure 3.7 presents the course success rates by qualification level (undergraduate, postgraduate and overall) from 2009 to 2014.

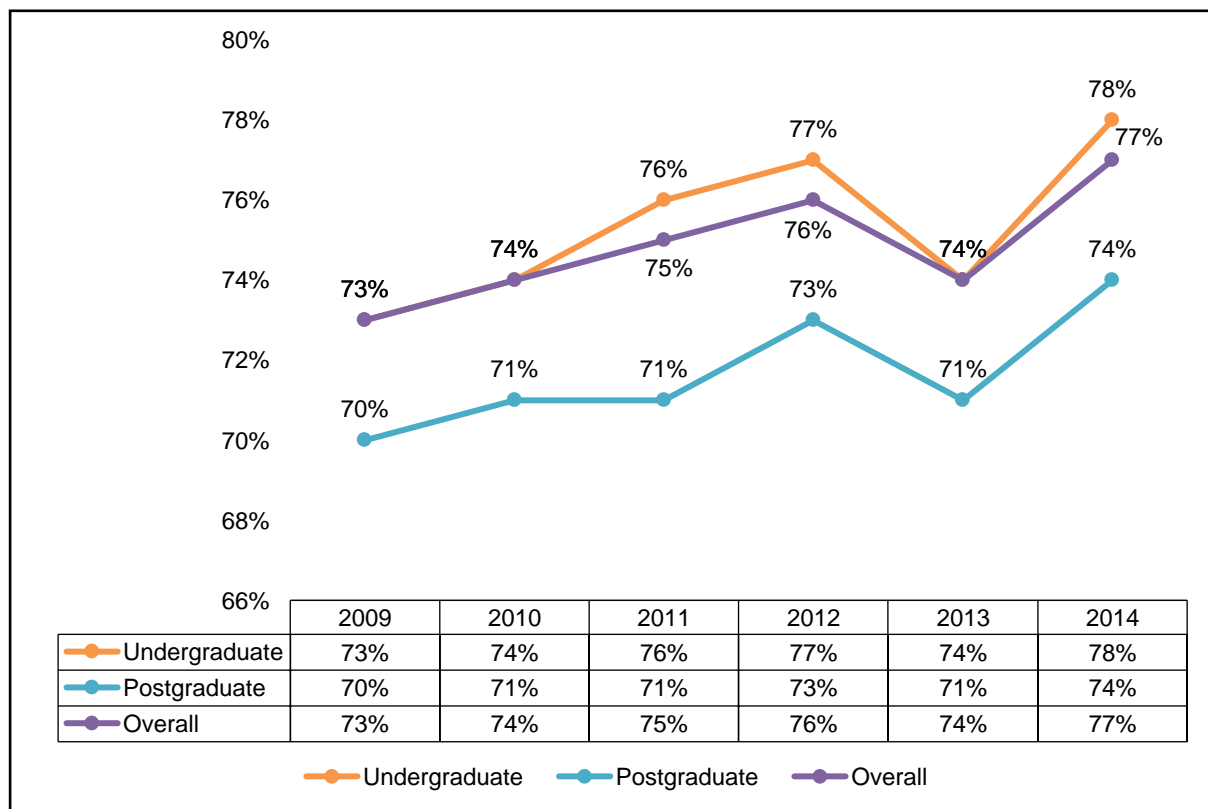


Figure 3.7: Course success rates by qualification level, 2009-2014

Source: Vital Stats 2014 (CHE, 2016d, p. 12)

The overall course success rates by qualification level, as presented in Figure 3.7, indicate that the success rate at undergraduate level increased from 73% (2009) to 78% (2014), whereas the success rate at the postgraduate level improved from 70% (2009) to 74% (2014), giving an average increase of approximately 4%.

Figure 3.8 presents the course success rate per qualification level by race from 2009 to 2014.

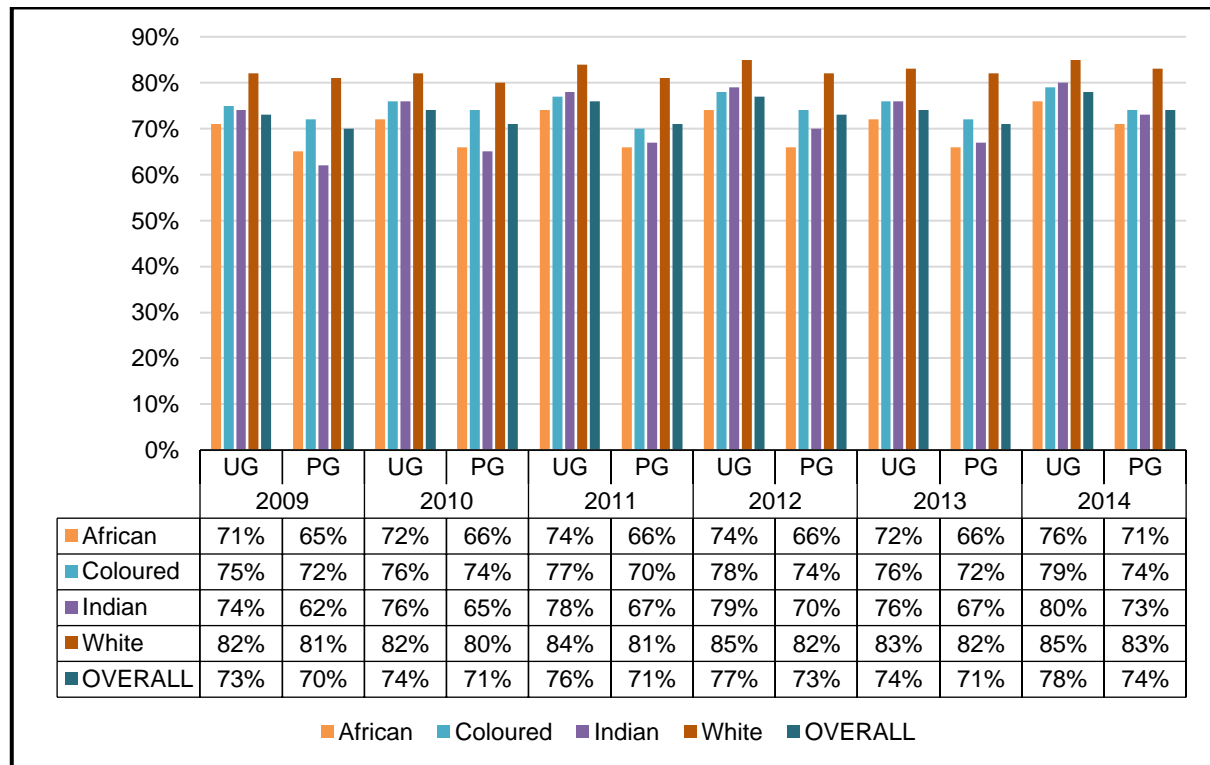


Figure 3.8: Course success rates per qualification level by race, 2009-2014
Source: Vital Stats 2014 (CHE, 2016d, p. 12)

In Figure 3.8, the undergraduate course success rates of African students present a gradual improvement from 71% since 2009 to 76% in 2014. Similarly, coloured students improved from a 75% success rate in 2009 to 79% in 2014. Indian undergraduate students improved from a 74% success rate in 2009 to 80% in 2014, and white undergraduate students improved with a smaller margin than the African, coloured and Indian students, namely from 82% in 2009 to 85% in 2014. Overall, however, this cohort has a higher success rate than African, coloured and Indian students over the same period.

Figure 3.9 below illustrates the graduation rates by race, from 2011 to 2014.

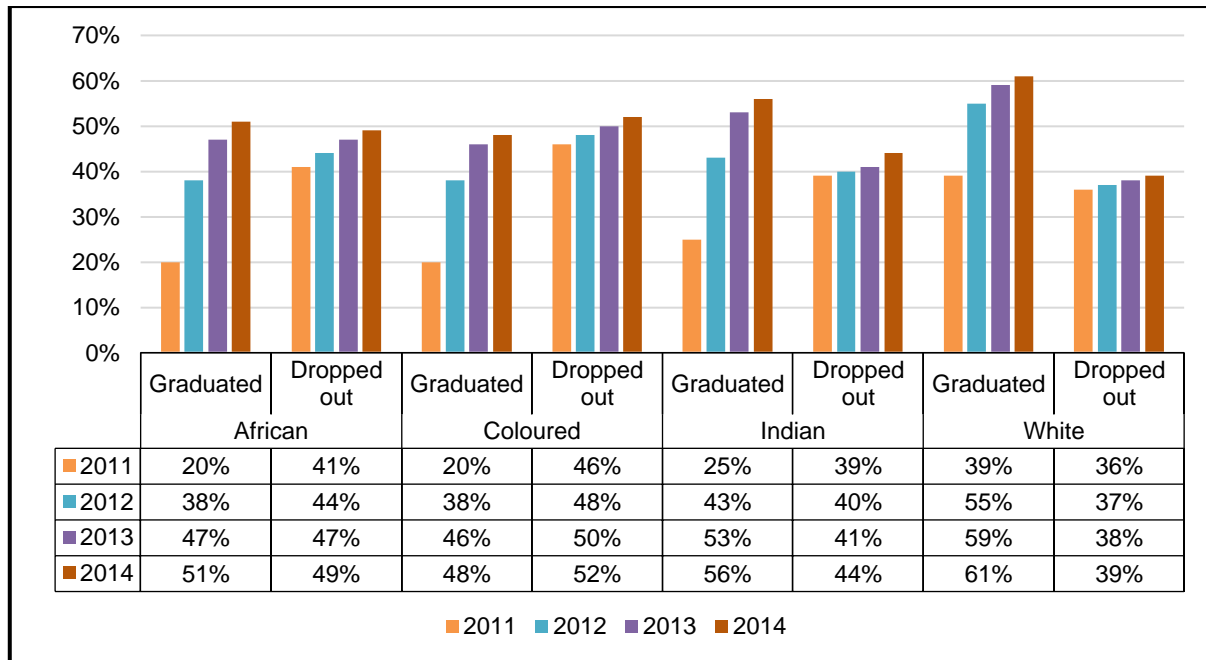


Figure 3.9: Graduation rates by race for 3-year degrees with 2009 as first year of enrolment (excluding UNISA)¹¹ - accumulative

Source: Vital Stats 2014 (CHE, 2016d, p. 63)

The percentage of students graduating from 2011 to 2014 is presented in Figure 3.9. Once again, African and coloured students have the lowest graduation rates. What is even more disconcerting are the high dropout rates among students from all population groups, that are around 40% for white, and Indian students, and even higher for African and coloured students. These figures show that the South African higher education system is still grappling with the apartheid legacy on the one hand and, on the other hand, with the challenges of massification, resulting from the widening of access and the increasingly important “role of knowledge in the economy and culture” (Cloete et al., 2002, p. 89).

The participation rates and student success data of the South African higher education system still indicate major challenges in achieving the 2030 vision for education, training and innovation of the NDP (NPC, 2012). The targets or goals that the NDP depicted towards 2030 include schooling targets, further education and training and skills development, as well as targets for higher education, science and technology. The higher education targets are listed below (NPC, 2013, pp. 275-278):

¹¹ There may be potential graduates remaining in the system after 2014 (CHE, 2016d, p. 62)

- That graduation rates increase to more than 25 percent by 2030.
- That participation rates increase to more than 30 percent.
- That more than 100 doctoral graduates are produced per million per year by 2030.

The major indicators of a successful higher education system are the social, economic and cultural skills that are developed. The HE system therefore needs to be future-oriented, as it directs the lives and activities of graduates for many decades (Teichler, 2013). Higher education furthermore contributes not only to “economic development”, it also enhances “good citizenship” in “enriching and diversifying people’s lives” (NPC, 2012, p. 317).

When considering student access and success, particularly in developing HE systems that have not yet reached universal access status, the largest growth in student numbers usually occurs among commuter students. Due to the particular circumstances of these students, they also often present lower success rates. Hence, the focus for the remainder of this chapter will be on commuter students in South African HE.

3.3 COMMUTER STUDENTS IN SOUTH AFRICAN HIGHER EDUCATION

Very little research has been done in South Africa on commuter students, and national data on commuter students is virtually non-existent. For this reason, the *Report on the Ministerial Committee for the review of the provision of student housing at South African universities*, released in September 2011 (DHET, 2011), is particularly informative. The Report confirmed what other scholars (Ike, Baldwin, & Lathouras, 2016) had found, namely that residence life can make a difference in student success and retention. Yet, the total number of beds available in residences of all public universities in 2010 were 107 598, which equalled only 20% of all the contact students enrolled at the (then) 22 universities. Only 5.3% of first year students (who needed it most) got placed in residences. This emphasizes the fact that the majority (more than 80%) of contact students are commuter students. Some of the advantages that residential students enjoy above their counterparts who commute, are summarized as follows by Pascarella, cited in Harvey et al. (2006, p. 59):

- Participate more in on-campus activities.
- Interact regularly and informally with academics and students.
- Are satisfied and have a sense of belonging to the campus environment.
- Are more successful in attaining degrees.
- Are socially and mentally better integrated.
- Are more open to voice their opinions and have a set core of values.

The strong residential traditions (Pascarella, 2006), the lack of understanding of the needs and concerns of commuter students (Jacoby & Garland, 2004) and the resultant absence of focus on commuter students in institutional policies, programs and missions of HEIs, contribute to the difficulty of integrating commuter students in the campus environment.

Key challenges that are related to student success and development emphasize that universities need to carefully consider activities and opportunities that involve commuter students, such as the timing of the events (Lipka, 2007) and the educational value thereof. Tinto (2012) posited that student success and better throughput rates do not happen by chance. Universities need to purposefully create ways to support specifically commuter students, while taking into account their specific circumstances and the challenges they face.

3.3.1 Challenges commuter students face

Learning communities are intended to enhance the integration of the social, cultural, physical, spiritual and intellectual growth of students so that these dimensions of growth can complement each other (Inkelas & Soldner, 2011). This view supports the value of active participation to transform and mould students by means of a quality educational and learning experience (Harvey et al., 2006). Commuter students who live with their parents or family tend to miss out on these experiences. Chickering (1974) also acknowledged that commuter students who live at home have more challenges to face, because they will less frequently collaborate with peers and faculty outside the classroom and will less often participate in cultural or extracurricular activities. Newbold et al. (2011, p. 142) stated that commuter students tend to come from middle- or low-income families that are less educated, and they are often first generation students who are less academically prepared for university, or perhaps

have to work to pay for their tuition fees. Clark (2006) posited that institutions therefore need to address the unique needs of off-campus students by increasing student interaction on campus, by facilitating mentor programs and by sustainably tying semesters together in order to assist non-residential students to experience the benefits that residential students are experiencing in campus communities. The changing university demographics created the necessity for actions and activities designed to improve the well-being of the growing number of commuter students (Kirk & Lewis, 2013).

Universities in SA are further pressurised not only to grant academic access to larger numbers of students, but also to provide safe and decent accommodation for students. This is, however, a major challenge, since less than 19% of the student population of SA lives in institution-owned accommodation (DHET, 2011). The demand for university housing is increasing, but the lack of adequate funding for infrastructure (Cloete, 2016) from the DHET is a limiting factor. HEIs are also more aware of the costs, risks and challenges that accompany such projects. According to the Report of the Ministerial Committee (DHET, 2011), Private Public Partnerships¹² can provide some relief for the deficit in student housing, if it is well integrated into the educational needs of HEIs.

The other alternative is that students stay in private accommodation. Some of the challenges brought about by living in privately owned accommodation involve high cost, poor quality and lack of educational space and safety. According to the DHET (2011, pp. 81-85), private accommodation is a key issue to higher education, because many of the facilities are quite a distance from campus and commuter students experience safety concerns, transportation failure or travel time challenges, as well as a lack of access control at their private accommodation. Social activities, for example, clubs and bars that attract crime, also pose potential challenges. Conditions in rental accommodation can become unbearable, because up to three students are sometimes living in one room that has actually been designed for two. This makes socializing, safety, hygiene and security a risk. Maintenance by landlords is not frequently done, and this causes power outage, plumbing and fire hazards and leave students no or little time for engaging with their academic work (DHET, 2011).

¹² Private Public Partnership is a contract established between a university and a private company concerning the structure, fees, services and maintenance of accommodation rendered to students.

For some commuter students living off campus means that a lot of time is spent on travelling, resulting in less time on task (CHE, 2013). Time management to complete academic work in campus facilities, where access to computers, books and support from staff and fellow-students (Van Der Voet & Vermeeren, 2017) are more readily available, becomes a major challenge. Related to this, the following factors also add to high commuter drop-out rates: they do not always have a quiet space to study in; they have to travel far distances to the university; they experience pressure from their families to quit their studies in order to support them financially (Jones, Coetzee, Bailey, & Wickham, 2008). Harvey et al. (2006, pp. 58-59) also argued that students who live on campus are likely to have higher retention and success rates, because historically they have been economically and socially more privileged.

3.3.2 Commuter student involvement and engagement and proposed strategies for success

In South Africa little or no research has been conducted on the involvement and engagement of commuter students, although they form the majority of the student population. Dropout rates, as discussed in section 3.2.3, indicate that almost 46% (2014) of HE students withdraw or never complete their studies. Factors contributing to this high dropout rate can be a result of students experiencing financial constraints, being first-generation students and coming from low-income families (NPC, 2012; Spaull, 2013) who are less educated (Bitzer, 2009a; Marginson, 2016; Oketch, 2016). The academic and social integration of specifically first-years are determined by their intrinsic motivation (Maslow, 1943; Maslow et al., 1970; Newbold et al., 2011; Phinney, Dennis, & Chuateco, 2005) and the interconnection between the personal, academic and social spheres (Bitzer, 2009a; Kuh, 2009; Milem & Berger, 1997; Sidelinger et al., 2016; Wawrzynski, Heck, & Remley, 2012) of development.

According to Wawrzynski et al. (2012, p. 2) and Bitzer (2009a), student engagement and success in SA have only been receiving attention since 2003, therefore many policies and programs with regard to student engagement and involvement have been shaped around the best practices of the US system (Kuh, 2001a; Kuh et al., 2005; Nelson et al., 2014). A number of theories highlight the practices that institutions can employ to enhance student engagement. Research done by Bitzer and Troskie-De Bruin (2004, p. 120) used Astin's I-E-O model to determine the cause and effect of the

educational experience that students and staff experience at HEIs to “enhance their intellectual and scholarly development, and to make a positive difference in their lives”. Chickering and Gamson (1987) introduced the Seven Principles for Good Practice in Undergraduate Education, as discussed in section 2.5.2, to guide HEIs to improve engagement with their commuter students and to create environments that are conducive for learning (Cleveland & Fisher, 2014; Crocitto et al., 2017).

The following strategies to improve commuter students’ participation and engagement are proposed by a number of researchers in the field (Dryden & Goldstein, 2013; Jacoby, 1989, 1990, 2000b, 2015; Jacoby & Garland, 2004; Kuh et al., 2001):

- a living and learning space that can be used between classes or while waiting for transport;
- dining halls for booking and buying meals;
- laundry facilities;
- access to computer laboratories and books for academic commitments;
- integrated commuter and residential spaces to meet with staff and peers to enhance out-of-class learning and development;
- physical spaces where educational activities can enhance conversations between diverse group of students;
- lockers to store away valuables during the day;
- backpacker rooms to sleep if in need;
- providing transport and making parking areas available after class, and
- letting them feel that they matter and that the university is interested in them.

Zepke and Leach (2010, p. 169) proposed a useful conceptual organizer for student engagement that can contribute to commuter student involvement and engagement and to student success, as in Table 3.2 below.

Table 3.2: Conceptual organizer for student engagement

Research perspectives	Proposals for action
<i>Motivation and agency</i> (Engaged students are intrinsically motivated and want to exercise their agency)	1. Enhance students' self-belief
<i>Transactional engagement</i> (Students and teachers engage with each other)	2. Enable students to work autonomously, enjoy learning relationships with others and feel they are competent to achieve their own objectives
<i>Institutional support</i> (Institutions provide an environment conducive to learning)	3. Recognize that teaching and teachers are central to engagement
<i>Active citizenship</i> (Students and institutions work together to enable challenges to social beliefs and practices)	4. Create learning that is active, collaborative and fosters learning relationships
	5. Create educational experiences for students that are challenging, enriching and extend their academic abilities
	6. Ensure institutional cultures are welcoming to students from diverse backgrounds
	7. Invest in a variety of support services
	8. Adapt to changing student expectations
	9. Enable students to become active citizens
	10. Enable students to develop their social and cultural capital

Source: Zepke and Leach (2010, p. 169)

These strategies propose useful actions that HEIs can implement to improve student involvement and engagement, also that of commuter students.

3.3.3 Physical learning spaces as examples of what universities in South Africa have done to address commuter student success

Little evidence exists of focused attempts to address the needs of commuter students in South Africa. No information on this matter could be found on the websites of the tertiary institutions of South Africa, pointing to the necessity of this study.

In an attempt to find information, the researcher had telephonic conversations with and sent emails to the directors of student housing at the following tertiary institutions:

1. Durban University of Technology
2. Nelson Mandela Metropolitan University
3. North West University, Mafikeng Campus

4. North West University, Vaal Triangle Campus
5. Rhodes University
6. Tshwane University of Technology
7. University of Cape Town
8. University of Johannesburg
9. University of Pretoria
10. University of the Free State
11. University of the Western Cape
12. Wits University
13. Cape Peninsula University of Technology
14. Vaal University of Technology

Eight of the 14 institutions responded to the emails or phone calls. The telephonic responses mainly indicated that the institutions do not do much to specifically accommodate commuter students. The official stance is that commuter students form part of the campus and can therefore attend classes and co-curricular activities like the residential students do.

The email responses indicated that nothing special is done for the commuter students, that the institutions are in desperate need of facilities for such students and that they are only starting to think in the direction of creating facilities to accommodate their day-students. Some of the commuter students live in close proximity to the campus and therefore nothing extra is done to accommodate their needs.

Email correspondence with Dr WP Wahl, assistant director: Residence Life of the University of the Free State (30 July 2015), indicated the following:

The majority of students at the University of the Free State are commuter students. On the Bloemfontein campus most commuter students stay in student houses approximate to the campus. A few of these student houses are close enough for students to walk to campus. However the majority of students either drive to campus or make use of public transportation. Safety also plays a huge role here. The UFS Qwaqwa campus accommodates substantially less students and a much higher percentage of students stay on campus. Commuter students are engaged in student life activities and

programmes in the following three ways. Firstly, students are encouraged to become part of a day residence. Day residences function in the same way as on-campus residences; i.e. student governance structures, programmes and activities. Day residences are also clustered with on-campus residences into Student Life Colleges. Secondly, commuter students are encouraged to participate in registered student associations. An array of student associations are registered in various categories; e.g. political associations, religious associations, academic associations, etc. Faculty organizations provide a third platform for commuter students to become involved in campus life outside the classroom.

According to the feedback from the higher education institutions in South Africa, very little is done to accommodate commuter students. The University of the Free State and Stellenbosch University have done the most to integrate the commuter students into the living and learning communities on campus.

3.4 CONCLUSION

In this chapter national perspectives on student access and success, with specific reference to commuter students, were presented. To better understand the context of higher education in SA, student participation during apartheid and post-1994 was discussed and challenges regarding student success were highlighted. It was found that commuter students are facing specific challenges to be involved and engaged in campus life.

In Chapter 4 institutional perspectives on student access and success, with specific reference to commuter students at Stellenbosch University and the amaMaties cluster – as an example of the cluster initiative and learning space provided to integrate the commuter and residential students – will be discussed.

Chapter 4

INSTITUTIONAL PERSPECTIVES ON STUDENT ACCESS AND SUCCESS WITH SPECIFIC REFERENCE TO COMMUTER STUDENTS

4.1 INTRODUCTION

National perspectives on student access and success within the South African higher education context pre- and post-1994 were discussed in Chapter 3. Challenges regarding student success were elaborated upon, whereafter commuter students, their challenges, involvement and engagement, as well as the physical spaces that some universities have put in place to address the needs of commuter students and to improve their learning experience, were discussed. With this background information on the impact that the widening access to higher education had on the international and national arena, it is necessary to look at the impact of it institutionally, and what Stellenbosch University (SU) has done to address the matter.

In this chapter, the researcher will therefore, from an SU context, look at what happened regarding student access and participation before and after apartheid, and how the university facilitates the integration of commuter students into the learning communities that are created to address their needs.

4.2 THE STELLENBOSCH UNIVERSITY CONTEXT

The history of SU (SU, 2014) emanates from the 17th century (1685), when basic school education was initiated. Higher education was established with the opening of the Theological Seminary of the Dutch Reformed Church in 1859, and in December 1863 the foundation for the Stellenbosch Gymnasium, that became a reality in 1866, was laid. In 1874, the Arts Department was founded and opened with 120 scholars, one professor for Mathematics and Natural Sciences and another professor for Classical and English Literature. In 1879 it was decided to erect a college building to specifically create space for teaching. The new building was inaugurated on 06 November 1886 and in 1887 renamed Victoria College in honour of Queen Victoria's

golden jubilee, the 50-year celebration of her ascent to the British throne. From 1897 to 1900 Victoria College was expanded with the Physics laboratory, the Christian Marais library and buildings for Education and Science. Another expansion scheme, initiated in 1904, led to the establishment of research chairs in Zoology, Botany, History and Applied Mathematics. In 1911 the first professor of Education was appointed. The adoption of the University Act in 1916 by the Union of South Africa Parliament paved the way for the establishment of a university, and on 2 April 1918 Victoria College became an independent university, called Stellenbosch University. The Dutch speaking community in Stellenbosch at the time also fought for the existence of an independent university using “Afrikaans-Dutch” as the medium of instruction (Baumert, 2014).

Parts of the university were, however, built in ‘Die Vlakte’ (Afrikaans for ‘The Flats’) where many coloured residents of Stellenbosch had lived and then moved away due to the Group Areas Act (Act 41 of 1950). Lückhoff School was the centre of ‘Die Vlakte’ and was built as the first Afrikaans secondary school for coloured children in the Boland in 1938, but was transferred to SU in 1969. This caused a rift between the university and the coloured community for nearly 40 years. In 2007 the building was given back to the community where it, in collaboration with the SU’s Community Interaction Division and Matie Community Service, is now serving society to make a difference (SU, 2014).

During apartheid, SU was a racially exclusive university for white students only until the early 1990s, although a few black students gained access since the late 1970s. Since SU became an independent university, a close relationship was formed with the Afrikaner community and the Afrikaans language, of which it became a powerful symbol in SA. There were, however, students, staff members and alumni that apposed apartheid (Botha, 2007). Post-1990 SU started late in its transformation and in addressing its historical white Afrikaans-medium past, together with Afrikaans as medium of instruction, when compared with other universities in SA (Baumert, 2014). On the language debate at SU, Prof. Chris Brink, former Vice-Chancellor and Rector (2002-2007), said:

Stellenbosch can and must play an important role in the promotion of Afrikaans and in building an inclusive future for the language based on a value-driven approach. I believe that Afrikaans as teaching and science language in a multicultural context can be promoted without coercion and exclusion and that teaching should not only happen in Afrikaans at Stellenbosch University (Botha, 2007, p. 157).

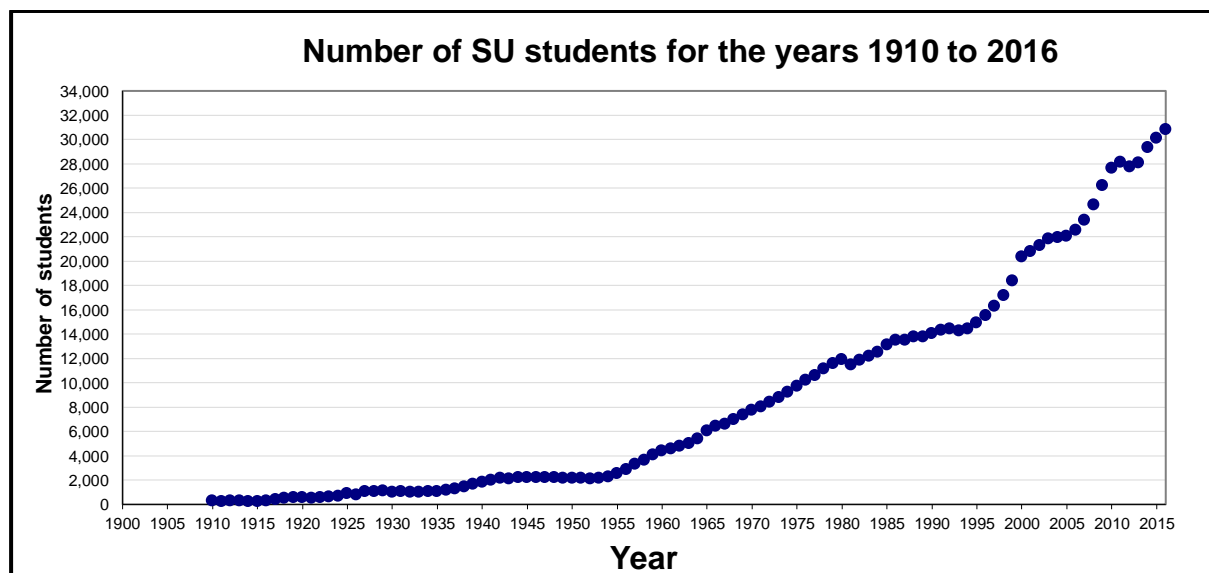
Following ongoing discussions surrounding the Afrikaans language used at SU as medium of instruction, a policy and plan, denoting Afrikaans as the 'default' language of undergraduate instruction, was drafted to address this sensitive issue. The policy and plan was accepted and published in 2002 and as a result, a language committee was established in the same year. In 2003 the language specifications for modules of programs, with a view to 2004, were accepted and the code of conduct was included in the university calendar. It was also decided that all SU strategic documents must be in Afrikaans and in English. The Council, however, requested that research should be done on the experience of students and staff regarding the implementation of the language policy. According to this research (2005), the majority of students demonstrated their satisfaction with the language policy and its implementation. During this period, faculties were also encouraged to incorporate more credit-bearing language skills modules into their programs and to apply them in accordance with their own needs. The use of the so-called 'T-option' (bilingual instruction) from the second academic year onwards was strongly encouraged by the language committee in order to promote a multicultural awareness among students, and a greater emphasis was placed on providing study material in English. In the same year, the Council of SU favoured the possibility that more parallel-medium education would be considered in the first year of study, where Afrikaans and English classes would be separated.

In 2007, the language policy was adjusted and parallel-medium instruction was also accepted as an additional option. A language model for 2010 was then accepted, where three faculties set up parallel-medium education in the first year. Another faculty planned to implement this model in 2011. During 2010, support services were further requested to submit language implementation plans. Following on the above developments, it was recommended that research on simultaneous interpreting as language practice should be done before it could be accepted as a mode of instruction

at the time. In this period, Afrikaans was still the default language of undergraduate teaching at the university.

The search for the most appropriate language model is, however, a dynamic process. This process takes into account the different contexts of the different faculties, and therefore a uniform model cannot be enforced in all faculties. The current language policy of the university (SU, 2016a) aims at giving equal access to all students and staff members of SU by requiring all teaching to be done at least in English, with additional Afrikaans summaries and explanations where required. The language policy also aims “to ensure that language practices facilitate pedagogically sound teaching and learning (p. 2)”. It therefore applies to all faculties, support services divisions, management bodies, staff members and students of SU in order to be inclusive.

Afrikaans as medium of instruction has for a long time been seen as a barrier to access for students whose home language is not Afrikaans, and one of the reasons for the slow diversification of the undergraduate student body. Yet, SU experienced a vast growth in student numbers in general, from 1910 to 2016, as is seen in Figure 4.1.



(The SU's student number total of 1981 is estimated)

Figure 4.1: Total number of SU students, 1910-2016

Source: Stellenbosch University (SU, 2016b)

In Figure 4.1, a slow student growth rate in enrolment over the first 45 years at SU, namely from 120 students in 1910 to almost 2000 students in 1955, can be observed. Over the next 40 years (between 1955 and 1995), student enrolments increased more

rapidly, to more than 14 000 students in 1995, and over the last 20 years (between 1995 and 2015) the enrolment numbers have increased significantly to more than 30 000 students. Student access and participation in SU during apartheid will now be discussed in more detail.

4.2.1 Student access and participation during apartheid

SU is known as one of the historically white Afrikaans universities in SA. The response to the apartheid ideology, policies and legislation of the NP government after 1948 differed substantially between the historically Afrikaans universities (SU, the University of Pretoria, the University of the Orange Free State, Rand Afrikaans University and the Potchefstroom University for Christian Higher Education) on the one hand, and the historically English liberal universities of Cape Town, the Witwatersrand, Natal and Rhodes University (Sehoole, 2005, pp. 65-69) on the other hand. The Afrikaans universities supported the apartheid government and were subservient to their policies of higher education in order to be of service to the government. This could directly be linked to the enrolment numbers of all these universities, where 96% of students in 1990, and 89% of students in 1993 were white. They further supported the government to assure their survival as higher education institutions, but also saw themselves as pivotal role-players in the training of staff for the civil service of the apartheid government, since they were financially funded by the government and business sector alike. Another characteristic of these universities was that they could staff mid-level management with competent and efficient staff members that could implement change effectively (Cloete, 2006, pp. 66-69).

The historically English universities also acknowledged their financial dependence on government, but refused to accept the status of being 'creatures of the state' (p. 70), and they opposed the policies and actions of the government. They decided to teach whatever they thought was appropriate and necessary, and further allowed larger number of black students to their institutions after the introduction of the tricameral parliament of 1984. They also gave black students permission to live in residences, although it was forbidden by the apartheid government. By 1990, 28% and by 1993, 38% of the enrolments at these four universities were African, coloured or Indian students (Cloete et al., 2005, pp. 70-71).

In stark contrast to this are student enrolments at SU from 1985 to 1994 (both undergraduate and postgraduate), according to race, given in Table 4.1.

Table 4.1: SU all student enrolments by race, 1985-1994

RACE	SU ALL STUDENT ENROLMENTS, 1985-1994									
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
WHITE	13 088	13 519	13 615	13 618	13 570	12 644	12 909	12 774	12 549	12 473
COLOURED	194	317	421	474	545	578	667	713	914	1 061
BLACK	18	21	33	42	45	48	81	108	161	226
INDIAN	10	10	12	17	21	19	28	28	52	66
UNKNOWN	34	31	29	30	31	29	29	29	20	11
TOTAL	13 344	13 898	14 110	14 181	14 212	13 318	13 714	13 652	13 696	13 837

Source: SU Division for Institutional Research and Planning, 2017

It is noticeable that the vast majority of students enrolled at SU from 1985 to 1994 were white. The white students represented 98.1% of the total student population enrolled during that time. The coloured students represented 1.5% of the total enrolments, the Indian students 0.1% and the black students 0.1% of the total students enrolled in the period 1985 to 1994. The white student numbers decreased from 98.1% in 1985 to 90.1% in 1994. The coloured student enrolments increased from 1.5% in 1985 to 7.7% in 1994; the black student numbers increased from 0.1% in 1985 to 1.6% in 1994 and the Indian student numbers increased by a smaller margin – from 0.1% in 1985 to 0.5% in 1994.

Table 4.2 gives the undergraduate enrolments at SU, according to race, from 1985 to 1994. Undergraduate enrolments in 1985 amounted to 13 344 (70.84% of total student enrolment), which increased to 13 837 (71.58% of total student enrolment) in 1994 – as indicated in Table 4.2.

Table 4.2: SU undergraduate student enrolments by race, 1985-1994

RACE	UNDERGRADUATE STUDENTS AT SU FROM 1985 TO 1994									
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Unknown	23	22	23	23	20	20	19	20	16	9
White	9 286	9 566	9 613	9 523	9 465	8 925	9 179	9 204	9 000	8 944
Coloured	140	234	325	370	424	460	508	561	716	859
Black	1	2	8	9	7	4	17	22	43	61
Indian	3	2	2	3	4	6	13	15	28	31
TOTAL	9 453	9 826	9 971	9 928	9 920	9 415	9 736	9 822	9 803	9 904

Source: SU Division for Institutional Research and Planning, 2017

During the last ten years of apartheid, SU undergraduate student enrolments overall increased by 4.55%, which indicates a slow growth rate that could probably be ascribed to two factors. As prescribed by the apartheid government, SU, being a historically white university, needed special ministerial permission to enrol black, coloured and Indian students. The already high participation rate of white students precluded a massive growth in student numbers. Secondly, the fact that SU was a historically Afrikaans university also served as a barrier for the enrolment of non-Afrikaans speaking white students. With these two barriers being addressed in the new democratic dispensation after 1994, the widening of access and participation at SU occurred more rapidly.

4.2.2 Student access and participation post-1994

Higher education at universities (including SU) post-1994 is still affected by the way in which education was provided in SA pre-1994. The national participation rates by race and gender between 2006 and 2015 are presented in Table 4.3.

Table 4.3: National participation rates by race and gender, 2006 to 2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
African	12%	12%	13%	13%	14%	14%	16%	16%	15%	16%
Coloured	13%	12%	14%	14%	15%	14%	14%	15%	14%	15%
Indian	48%	43%	45%	45%	46%	47%	47%	49%	50%	49%
White	57%	54%	56%	58%	57%	57%	55%	55%	54%	53%
OVERALL	16%	16%	17%	17%	18%	17%	19%	20%	18%	19%
Male	14%	14%	15%	15%	15%	15%	16%	16%	15%	15%
Female	18%	18%	19%	19%	21%	20%	23%	23%	21%	22%
TOTAL	16%	16%	17%	17%	18%	17%	19%	20%	18%	19%

Source: Vital Stats (CHE, 2012, 2017)

The national average participation rate for African students between 2006 and 2015 is 14%, the average for coloured students during the same period is 14%, for Indian students 47% and for white students 56%. The overall national average participation rate in higher education in SA is 18%, of which an average of 15% are male and 20% female.

The urge to transform education at SU therefore requires transforming the educational experience into one that is democratic and permissive, non-racial and empowering. Student access and participation between 1995 and 2000, however, did not show significant growth in black, coloured and Indian students, as is seen in Table 4.4 below.

Table 4.4: SU undergraduate students by race, 1995-2000

RACE						
	1995	1996	1997	1998	1999	2000
Unknown	5	1	1	1		6
White	8 940	8 974	9 415	9 721	9 355	9 419
Coloured	1 085	1 313	1 415	1 368	1 234	1 223
Black	94	126	134	251	572	734
Indian	42	73	74	106	112	126
TOTAL	10168	10486	11040	11447	11272	11508

Source: SU Division for Institutional Research and Planning, 2017

From 1995 to 2000, white undergraduate enrolments increased with 5.09%, the coloured enrolments with 11.28%, the black enrolments with 87.19% and the Indian

enrolments with 66.67%. Proportionally however, in 2000, white students still formed 81.85% of the total number of undergraduate student enrolments, coloured students 10.63%, black students 6.39% and Indian students 1.10%.

In the period from 2001 to 2006 the aim to represent “a diversity of people and ideas” (Botha, 2007, p. 31) was displayed in the growing numbers of coloured, black and Indian students at the university. Within the period of five years, undergraduate coloured, black and Indian enrolments increased by 70%, while the total number of undergraduate students enrolled at SU increased by 44%. This is shown in Table 4.5.

Table 4.5: SU undergraduate students by race, 2001-2006¹³

YEAR	2001	2002	2003	2004	2005	2006
Total undergraduate	11 775	13 203	13 723	13 548	13 923	14 469
RACE						
White	9 679	10 686	10 824	10 961	11 135	11 283
Coloured	1 270	1 566	1 799	1 914	2 045	2 232
Black	692	803	908	494	554	756
Indian	132	148	191	178	189	198
Percentage coloured, black & Indian (CBI)	17.78%	16.33%	21.11%	19.09%	20.02%	22.02%

Source: SU Division for Institutional Research and Planning, 2017

In 2005 (DIRP, 2017), SU had a total student population of 22 963, of whom 60.63% were undergraduate students. Of the total 2005 cohort (22 963), 12.76% were black, 51.07% were female and only 26.41% students lived in university-owned residences, houses and flats (SU, 2005, p. 7). Therefore, 73.59% of the students did not live in university accommodation and formed part of the commuter students. The growth in student diversity also continued over the next five years.

Table 4.6 indicates SU undergraduate student enrolments by year and race from 2001 to 2016, as well as the undergraduate enrolments by gender for the same period.

¹³ Special students excluded.

Table 4.6: SU undergraduate student enrolments by race and gender, 2007-2016

SU undergraduate student enrolments by year and race from 2007 to 2016										
Undergraduate	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Unknown			16							
White	11 473	11 612	12 122	12 517	12 743	12 576	12 383	12 420	12 678	12 755
Coloured	2 372	2 535	2 557	2 722	2 806	2 736	2 989	3 414	3 751	3 917
Black	819	913	1 004	1 187	1 325	1 410	1 697	1 947	2 226	2 384
Indian	225	218	235	249	275	285	328	419	477	547
CBI	3 416	3 666	3 796	4 158	4 406	4 431	5 014	5 780	6 454	6 848
TOTAL	14 889	15 278	15 934	16 675	17 149	17 007	17 397	18 200	19 132	19 603
SU undergraduate student enrolments by gender from 2007 to 2016										
Male	7 728	7 845	8 209	8 551	8 858	8 726	9 130	9 755	10 359	10 699
Female	7 161	7 433	7 724	8 124	8 291	8 281	8 267	8 445	8 773	8 904
TOTAL	14 889	15 278	15 934	16 675	17 149	17 007	17 397	18 200	19 132	19 603

Source: SU Division for Institutional Research and Planning, 2017

In 2007, coloured, black and Indian (CBI) students formed 22.94% of the total cohort of undergraduate students at SU. In 2008, the CBI students formed 23.99%; in 2009, 23.82%; in 2010, 24.94%; in 2011, 25.69%; in 2012, 26.05%; in 2013, 28.82%; in 2014, 31.76%; in 2015, 33.73% and in 2016, CBI students were 34.93% of the total number of undergraduate students. This illustrates a growth rate of 49.88% in CBI students over a period of ten years. In 2016 SU had a total number of 32 056 students, of whom 19 603 (61.15%) were enrolled for undergraduate programs, 10 388 (32.41%) for postgraduate programs and 2 065 (6.44%) for non-degree programs. Against the background of the increasing number of enrolments, it becomes necessary to look at student success at SU.

4.3 STUDENT SUCCESS

Student success can be defined in different ways and is particularly related to the relevance and meaning that students derive from their university experience. Higher education institutions in the 21st century are therefore focusing more on their students' success rather than on the infrastructure, because time is money and university success is of vital importance (Jenkins & Rodriguez, 2013; Nelson et al., 2014). According to the NSSE (2007, pp. 7-8), for students to be successful they have to

devote more time and effort to purposeful tasks. These tasks, however, demand interaction between lecturers and students, and also longer periods of time with advisors, mentors or peers. Institutions should further give students the opportunity to engage with a diverse group of people that are different from themselves, and also teach students to work in different settings and to work with their peers beyond the classroom.

The belief that student success is promoted through student engagement is illustrated in various institutional initiatives at SU that aim at promoting student engagement. In the process, students' opportunities to be academically successful are enhanced and the preferred graduate attributes are developed. In addition, there is a strong institutional drive towards integrating all students into student learning communities in order to enhance both student engagement and student success. This intent is reflected in a number of institutional strategic documents.

In April 2000, SU adopted a new vision and mission, called *A Strategic Framework for the Turn of the Century and Beyond* to "guide the positioning and development" (SU, 2000, p. 4) of renewal for the next ten years at SU. This framework emphasizes that SU wants to be relevant and to contribute its assets to society. It expresses the objective to let SU students stand out on the basis of their well-roundedness and their creative and critical thinking skills, as well as the objective to be innovative and relevant to the needs of the community by taking into consideration the needs of SA, Africa and of the world (SU, 2000, p. 9).

Following on the Strategic Framework of 2000, the *Vision Statement 2012* (SU, 2012b) was developed which states that SU:

- Is an academic institution of excellence and a respected knowledge partner.
- Contributes towards building the scientific, technological and intellectual capacity of Africa.
- Is an active role player in the development of the South African society.
- Has a campus culture that welcomes a diversity of people and ideas.
- Promotes Afrikaans as a language of teaching and science in a multilingual context.

In order to realise this vision, the SU Senat has approved the following profile of the SU graduate (SU, 2017e, p. 8):

- The Stellenbosch graduate should: also have the attributes that reflect the values, ideals and objectives of learning and teaching in SU context, such as:
 - Have an enquiring mind – be a lifelong learner; critical and creative thinker and exercise responsibility for learning and using knowledge;
 - Be an engaged citizen – leader and collaborator; social entrepreneur and effective in a diverse environment;
 - Be a dynamic professional – problem solver; use sustainable and effective technology; innovative and an effective communicator;
 - Be a well-rounded individual – be exposed to cultural, intellectual and sporting life; take responsibility for own development and take informed and considered decisions.

In addition, the *SU Institutional Intent and Strategy 2013-2018* (SU, 2012a, p. 11) supports the National Development Plan's and global development goals, when stating that SA will be a better place if the challenges of the 21st century are tackled in the spirit of "making hope happen". The SU's commitment to serving society has, since 2007, found expression in the HOPE Project, and "creating hope" has been recognised as the institution's footprint in South Africa, on the continent of Africa and internationally. The SU therefore focuses on creating and sustaining an environment of inclusivity, transformation, innovation and diversity, with core activities that focus on student success, the knowledge base, diversity and systemic sustainability (p. 15). The three comprehensive priorities of *Vision 2030* at SU encapsulate a broadening of access, sustaining excellence and enhancing societal impact (SU, 2012a, 2017f).

One of the priorities of the *SU Institutional Plan 2012-2016* (SU, 2011) for student success was to overcome the unequal educational results between the different race groups (SU, 2011, p. 7).

4.3.1 SU student success in comparison to national averages

The student outputs in the public higher education system in SA in terms of graduation rates improved from 73% in 2000 to 77% in 2008, with an average annual increase of

5.0% over the same period. This increase was higher than the average annual increase of 4.6% in enrolment numbers during the same period (CHE, 2010, p. 22). Stellenbosch University performed significantly better than the national average, with a graduation rate in 2008 for residential students of 84.8% and for commuter students 77.7%. For the period 2007-2016 the average graduation rate at SU was 80.11% (see Figure 7.5). This will be discussed in more detail in Chapter 7.

The above average success rates at SU should be interpreted against the background of the institution's admission requirements. Nationally the minimum requirements to bachelor's degree studies, is a National Senior Certificate, with appropriate subject combinations and levels of achievement, as is seen below:

The minimum admission requirement is a National Senior Certificate (NSC) as certified by Umalusi with an achievement rating of 4 (Adequate Achievement, 50-59%) or better in four subjects (Government, 2005, pp. 8-9).

For admission to a Bachelor's degree at SU, prospective students have to obtain:

A NSC as certified by Umalusi with admission to Bachelor's degree studies, which means that you must obtain a mark of at least 50% in each of four school subjects from the list of university admission subjects...; have written the National Benchmark Tests (NBTs). These tests assess a candidate's ability to apply his/her academic literacy (language skills), quantitative literacy (numeracy skills) and mathematics in a tertiary (higher education) setting (SU, 2017a, p. 01).

Admission for prospective students at SU is further subject to:

faculty-specific, program-specific and subject-specific admission and selection requirements of the relevant program for which students want to register, as set out in the part of the University Calendar for the faculty concerned and/or the letter of admissibility and/or the notice about admission requirements sent with the letter of admissibility. Discretionary

admission by the dean with a view to promoting diversity may also occur (SU, 2017c, p. 95).

The higher than national average graduation rates at SU could, at least partially, explained by the fact that students are admitted with higher marks, which may lead to better academic success rates. SU has traditionally attracted academically strong students, due to high admission requirements, but student success has come under pressure with the greater diversity in the student population. Thus, various initiatives have been put in place to promote student success. These interventions take place in the academic environment and in the living environment of students.

4.3.2 SU student success interventions: curricular environment

Student success interventions in the curricular environment at SU include a program that offers educationally disadvantaged learners who do not meet the minimum admission requirements for a degree program at SU, a second chance, namely the one-year university preparation program, SciMathUS. The students choose between a science and an accounting stream, whereafter they do Introduction to University Mathematics and acquire additional skills necessary to be successful in higher education. If the science stream is chosen, the NSC examination for Mathematics and Physical Sciences are rewritten. If the accounting stream is chosen, the students take Accounting and Introduction in Economics with the Extended Degree Program students, which are then assessed by SU, and a rewriting of the NSC examination for Mathematics takes place. With these improved results, students are allowed to reapply to be admitted to higher education (SU, 2017a).

The faculties of Economic and Management Sciences, Engineering, Medicine and Health Sciences, Science, as well as Theology, have further introduced extended degree programs for candidates whose results fall just short of the admission requirements or selection criteria and are eligible for such programs at SU. Socio-economically disadvantaged candidates are also given preference. Each faculty, however, has its own admission procedures.

To further support student success at SU, the First-year Academy (FYA) is an initiative that promotes and encourages quality first-year learning experiences, supporting first-

year students to achieve academic and social success, but more specifically academic success. SU further supports first-year students specifically with their transition from school to university through early assessment¹⁴ (EA). The results of the EA are used to assist first-years who struggle with academic work. Faculties use the EA results to identify students for tutor and study groups, as well as to organise extra classes or consultations between lecturers and students at risk (SU, 2012d, pp. 51-52). In collaboration with the FYA initiative, SU understands that student success comprehends more than just the first year of study (SU, 2012d). The FYA and the Residential Education (ResEd) initiative at SU want to create an environment that responds more extensively to the SU's purpose of giving students a complete academic experience, where the residence is an extension of the academic experience (Ortman, 1995) in faculties. The ResEd initiative wants to transform the structure of housing and the out-of-class experience (Boshoff, James, Mouton, & Treptow, 2010). It embodies a deliberate pursuit to form a student culture in which students not only pursue a good social student time, but also seriously accept the challenge of being effective role-players in South Africa, Africa and even further (Kloppers, 2006a).

Interventions in the co-curricular environments that support student success are discussed next.

4.3.3 Student success interventions: co-curricular environment

In 1953, a first year scheme whereby fifteen first-year students were placed with a senior student to advise them on the transition from school to university and thus to help increase the academic success rate in residences, was introduced at SU. A survey, conducted in 1954 by the National Bureau for Educational and Social Research, found that 28.72% of first-year students at SA universities failed their examinations. In the same year, SU placed all first-years together in the same residence, because the university realised – due to the high failure rate – that the first-years needed more support and attention. After the first-year scheme had been applied for two years at SU, in 1955, former rector at SU, Prof. H.B. Thom, announced that the retention and success rates of first-year students had improved after two years of implementation of the first-year scheme, because it indicated that only 16.4% of first-

¹⁴ Early assessment refers to the practice of conducting assessment in all first-year modules in the first six weeks of the academic year at SU.

year students failed, and 14.74% of the same group in their second year. These positive attempts to help students efficiently and effectively gained confidence at SU from parents and the public (Thom et al., 1966, p. 214).

Little information is available as to what had happened to the first-year scheme after that time. Between 1969 and 1972, according to Dr H.L. Botha, former senior director of student affairs at SU (personal conversation, 07 August 2017), the advisory system was something in name that did not really have an effect in practice and which was only vaguely understood by the advisors and first-years. There was no formal training for advisors and senior students often transferred only information about the traditions of residences to first-years. Some seniors paternalistically told first-years how the university actually worked while having no idea how to provide good guidance to a struggling or uncertain newcomer. However, there were seniors who were a bit more serious and tried to give good advice. The biggest gap, however, was that this system only existed in name. At the beginning of an academic year, there were sometimes attempts to provide first-year advice, but it slowly disappeared over the course of the year. This system was not formalized, there were no prescriptions and it was randomly left to the advisors to decide what, how and when they would advise first-year students.

Since 2013, mentors who are senior students at SU are formally assigned to assist and give psycho-social support to first-year students during their adjustment time to university life, and to guide them to accomplish academic success. The mentors use the BeWell¹⁵ mentoring program (Du Plessis, 2016) to offer first-year students the opportunity to become academically successful, well-rounded individuals, and to develop graduate attributes that will assist them in the workplace. The program also aims at helping students adjust to university life, as Seligman and Csikszentmihalyi (2014b) argue that a happy, well-adjusted student also performs well academically. Commuter students, however, face many additional challenges to be academically successful.

¹⁵ BeWell mentoring program is a campus-wide peer mentoring system that was expanded from 2013 to 2017 with new wellness-based face-to-face mentoring sessions, personalized and gamified developmental wellness websites, for each mentor and mentee, and a sophisticated tracking and management information system (Du Plessis, 2016).

4.3.4 Commuter student success

According to Jacoby (2000b), institutions need to understand and consider the needs and concerns of commuter students by applying knowledge of the information gained when designing courses, programs, activities and policies, in an attempt to get them more involved in learning. The challenge for universities remains the increasing student access, maintaining standards and quality of higher education, contributing to the social and economic development of students and increasing graduate numbers (Jenkins & Rodriguez, 2013, p. 189). Other commitments, life roles and participation in co-curricular activities influence the time commuter students spend on campus and on academics (Burlison, 2015) and relate to their involvement, engagement and success at higher education institutions (Wood et al., 2016). With commuter students often having less time available to spend on studies and other out-of-class academic activities, differences between the academic success of residential and commuter students are to be expected. To demonstrate this at SU, data from the DIRP and APS are used.

The first comparative measure that is an indicator of student success is the retention rate as a percentage out of 100. This is presented for commuter and residential first-year undergraduate students per race, from 2007 to 2015, in Table 4.7.

Table 4.7: SU retention rates of undergraduate first year residential and commuter students by race, 2007-2015

All residential first-year students	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Average %
White	94.4	95.8	96.2	96.2	97.0	96.4	96.8	95.5	97.4	98.1	96.4
Coloured	83.7	81.7	86.1	89.5	88.6	91.2	90.9	86.9	88.0	88.3	87.5
Black	78.8	80.2	81.5	90.8	92.9	93.8	92.0	87.9	89.8	90.2	87.8
Indian	86.7	71.4	83.3	85.7	80.0	86.4	90.0	87.9	96.9	95.5	86.4
All commuter first-year students	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Average %
White	82.5	84.6	83.2	81.6	82.7	84.0	86.7	85.1	86.3	88.7	84.5
Coloured	70.9	76.0	78.4	72.2	79.2	82.2	78.9	77.0	79.3	82.5	77.7
Black	52.2	62.0	60.3	69.1	55.9	57.1	73.7	80.3	74.7	76.7	66.2
Indian	73.7	80.0	75.0	76.3	84.0	87.0	88.1	75.9	78.9	81.5	80.0

Source: SU Division for Institutional Research and Planning, 2017

Table 4.7 clearly illustrates the differences in retention rates of first-year students living in residences and those that commute, as well as noticeable differences between the various population groups. White *residential* students have a 96.4% retention rate, whereas white *commuter* students have a retention rate of 84.5%, which indicates an 11.9% difference. Coloured *residential* students have a 87.5% retention rate, whereas their *commuter* counterparts have a retention rate of 77.7%. This indicates a 9.8% difference. The black *residential* students have a retention rate of 87.5%, whereas their *commuter* counterparts have a retention rate of 66.2%, which is also the lowest of both the residential and commuter first-year students per race and indicates a vast 21.3% difference. The Indian *residential* students have a retention rate of 86.4%, whereas the same cohort that *commutes*, have a 80.0% retention rate. This indicates the smallest difference per race, namely a difference of 6.4%. It is therefore clear that, in all the race groups, first-years living in residences continue in higher education to a larger extent than the first-year students that commute.

These differences are however not easy to explain. Socio-economic circumstances of different population groups, use of public or private transport, as well as cultural and family customs could all play a role. When comparing the academic success of

commuter and *residential* first-year students, it is significant to also compare students' performance in the National Senior Certificate (NSC), or Grade 12 exit examination, and their first year university results. This 'levels the playing field' among the different population groups, as far more black and coloured students come from a disadvantaged schooling background than white students, for example. This comparison is illustrated in Tables 4.7 and 4.8. The average NSC performance of *white residence* students over the last 10 years was 80.49%, compared to 72.28% of the *white commuter* students. *Coloured residence* students have an NSC average of 72.13% over the same period, compared to 66.95% of the *coloured commuter* students. The average NSC performance for *black residence* students over the past 10 years is 70.17%, compared to 61.95% of the *black commuter* students over the same period, and the *Indian residence* first-year students have an average NSC performance of 75.32% compared to 73.96% of the *Indian commuter* students over the past 10 years.

Table 4.8: SU National Senior Certificate (NSC) performance average of residential first-year students and commuter first-year students by race, 2007-2016

NSC matric performance average of <i>Residence</i> first-year students from 2007 to 2016											
RACE	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE
All first-years	81.17	79.59	75.32	74.86	76.9	77.32	77.08	76.88	77.45	79.77	77.63
White	84.05	83.53	77.68	77.39	79.98	79.58	79.43	79.85	80.4	83.04	80.49
Coloured	73.54	71.14	69.43	69.38	71.65	72.71	72.82	72.7	72.96	75.01	72.13
Black	68.41	66.92	66.92	66.96	69.55	71.26	72.62	71.27	72.89	74.85	70.17
Indian	84.16	59.92	72.87	72.41	74.68	75.83	79.8	78.33	77.61	77.61	75.32
NSC matric performance average of <i>Commuter</i> first-year students from 2007 to 2016											
RACE	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE
All first-years	72.7	72.29	69.37	68.83	70.29	71.55	70.47	70.66	69.89	72.13	70.82
White	73.9	73.33	70.08	69.77	71.24	72.62	72.54	72.87	72.29	74.17	72.28
Coloured	67.1	67.07	65.3	63.93	66.07	68.13	67.76	67.98	66.59	69.56	66.95
Black	62.8	59.29	63.48	64.43	64.32	63.78	60.96	59.19	59.35	61.88	61.95
Indian	75.67	77.31	74	69.67	71.64	74.95	74.35	74.98	71.86	75.15	73.96

Source: APS (<http://admin.sun.ac.za/trackwell/ssq11>) & <http://admin.sun.ac.za/trackwell/ssq16>)

There is a difference of 8.21% between *white residential* first-year students' NSC marks and *white commuter* first-year students' NSC marks when entering university. The difference between *coloured residential* first-year students' NSC marks and *coloured commuter* first-year students is 5.18%. The difference between *black residential* first-year students' NSC marks and *black commuter* first-year students is 8.22%, whereas the difference between the *Indian residential* first-year students' NSC marks and the *Indian commuter* first-year students happens to be only 1.36%.

The comparison between first-year students' school-leaving results and their academic performance in their first year of study is expressed as a percentage in Table 4.9 for residential and commuter students respectively, according to race.

Table 4.9: SU full year weighted average as percentage of Grade 12: residential and commuter first-year students by race, 2007-2016

Full year weighted average as percentage of Grade 12: <i>residence</i> first-years from 2007 to 2016											
RACE	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE
All first years	68.85	70.10	76.59	77.07	75.78	75.64	75.26	75.54	76.51	77.33	74.87
White	69.33	70.67	78.50	77.40	76.85	75.74	76.24	76.58	76.88	78.81	75.70
Coloured	65.33	66.51	69.70	75.88	72.62	74.13	73.84	73.40	76.39	75.75	72.36
Black	72.26	73.61	73.76	78.47	76.04	77.59	72.87	75.02	75.74	74.25	74.96
Indian	72.13	72.83	66.62	67.50	64.96	74.03	72.30	72.04	73.45	74.26	71.01
Full year weighted average as percentage of Grade 12: <i>commuter</i> first-year students from 2007 to 2016											
RACE	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE
All first-years	66.86	69.10	70.77	72.14	72.42	73.26	73.82	74.50	75.01	74.65	72.25
White	67.33	69.28	70.60	71.52	72.00	72.61	74.07	73.87	74.41	74.91	72.06
Coloured	64.59	68.25	71.21	74.57	76.29	78.57	75.29	75.28	77.20	74.02	73.53
Black	67.24	68.51	76.13	81.34	68.10	65.81	68.98	78.83	75.77	71.34	72.21
Indian	59.11	67.47	68.26	68.98	71.88	79.48	74.59	72.79	73.64	81.84	71.80

Source: APS (<http://admin.sun.ac.za/trackwell/ssq11>) & (<http://admin.sun.ac.za/trackwell/ssq16>)

After the first year of study at SU, the full year weighted average as a percentage of the NSC or Grade 12 marks from 2007 to 2016 indicate that *white residential* first-year students have an average of 75.70% compared to the 72.06% of the *white commuter* first-year students, *coloured residential* first-year students have an average of 72.36% compared to the 73.53% of the *coloured commuter* first-year students over the same period. The *black residential* first-year students have an average of 74.96% compared to the 72.21% of the *black commuter* first-year students and the *Indian residential* first-year students have an average of 71.01% compared to the 71.80% of the *Indian*

commuter first-year students over the same period. There is a difference of 3.64% between *white residential* first-year students' weighted average and *white commuter* first-year students' weighted average after the first year at university, with residence students performing better. The difference between *coloured residential* first-year students' weighted average marks and *coloured commuter* first-year students is 1.17%, with commuter students performing better. The difference between *black residential* first-year students' weighted average marks and *black commuter* first-year students is 2.75%, with residential students performing better, whereas the difference between the *Indian residential* first-year students' weighted average marks and the *Indian commuter* first-year students is 0.79%, with the commuter students performing better.

The reasons for the small differences between residential and commuter students' first-year performance can probably be related to the high academic admission requirements to residences at SU for first-year students. Once access to a residence has been granted, students' marks need to meet a minimum number of Higher Education Management Information System (HEMIS)¹⁶ credits for them to retain academic access to the university (SU, 2017c, p. 108) and to retain access to residences (SU, 2017d). This requirement works both ways: whereas it ensures that residential students maintain a certain level of academic performance, it also leads to some students not exerting themselves academically, because once they have gained access to residences, they only want to pass their modules to gain sufficient HEMIS credits to remain in the residence.

4.4 SU ORGANISATIONAL STRUCTURE FOR STUDENT ACCOMMODATION

SU has a long history of residential accommodation that dates back to 1914 (Thom et al., 1966, pp. 202-215), when 329 students were enrolled at the university, of whom only 39 were residents from Stellenbosch. SU was therefore already seen as a residential university. The university soon realized that there was not enough accommodation to accommodate increasing numbers of students. In 1930, 60% of the students lived in seven residences, and 441 students formed part of the Private

¹⁶ One HEMIS credit equals the minimum number of module credits required in a particular year of study of a programme. The modular credits of each year of study, e.g. first year, second year, third year, etc. are linked to a specific fraction of the value of one HEMIS credit.

Student Organizations (PSOs). By 1941, 50% of the students lived in ten residences. In 1945, the PSO students totalled 1 343 of the total number of students enrolled at SU. After new residences were built in the late 1940s, university-owned accommodation could accommodate 62% of the students. In 1960, the PSO student numbers had risen to 2 229 and in 1965, with PSO numbers reaching 3 208, they outnumbered the residential students. However, 1 300 of these PSO students lived either in Bellville, Saldanha or with their parents, so less than 2 000 students formed part of the PSO in Stellenbosch. This resulted in 61% of the students living in residences, which made SU the biggest residential university in SA at the time.

The PSO students have already, for quite a while, been linked to an organization known as the Private Student Organization (PSO) during that time. All unmarried private students were obliged to join, while married private students could choose whether they wanted to join or not. For the purpose of the university administration, the PSO was considered equivalent to a fully-fledged university residence and was subject to the authority of the university council's residence committee.

Having this long history in mind, residential accommodation for students at SU is very sought after, and it is known that specific traditions have developed in these spaces over time. SU has also approached the residential environment for a long time as an environment that offers not only accommodation, but which is also a space where student development takes place. High academic admission requirements for residences, continuing academic achievement for readmission (HEMIS), competition between residences and development programs in the residence environment led to residential students performing academically better than commuter students. One of the reasons for focusing on the needs of commuter students is to reduce this difference, as well as to offer commuter students a better student experience.

4.5 COMMUTER STUDENTS AT STELLENBOSCH UNIVERSITY

Shortly after the establishment of SU in 1918, the university council made an effort to place all students in residences, but as student numbers grew, it was soon realized that this was not possible. Students soon started complaining about insufficient accommodation. The shortage of residence places caused great dissatisfaction and inconvenience, and disgruntled parents and students argued that students who live in

private accommodation miss out on the full university experience and felt excluded from the university. In 1961, SU had 16 residences, but only 61% of its students could be accommodated in the university-owned accommodation (Thom et al., 1966). Non-residential students could join a PSO which operated as a unit within the university so that they could participate as groups in student activities.

During the 1970s, SU acknowledged that the reality of the increasing number of non-residential students needed to be addressed. The university management therefore established three male and one female PSO wards, and another co-ed commuter student ward was added in the 1980s. The non-residential wards mirrored the residential traditions and management, based on the assumption that that was the only manner in which non-residential students could become part of the out-of-class experience, student culture and student communities. With the rapid student growth, as is seen in Figure 4.1, the demand for university-owned accommodation continued to exceed the offer and by 1997, only 35% of all full-time students lived in university-owned accommodation.

Ten years later, in 2006, the number of non-residential students had grown to 11 951 (DIRP, 2017), thousands more than in the 1980's, but they were still organized in only five wards. This resulted in more than 3 000 commuter students per ward, with welcoming between 700 and 800 new first-years per ward annually (SU, 2012c). During the same year, the idea of organizing both residential and non-residential students into 'clusters' to promote 'residential education' among all students was proposed. This proposal originated from *The Collegiate Way* (originally started in Great Britain at Oxford, Cambridge and Durham Universities) that seeks to improve campus life by creating small, faculty-led residential colleges¹⁷ and house systems within universities, to improve the university experience of residential and commuter students. The residential education (ResEd) initiative was accepted early in 2007 by the university management team. The viewpoint of institutional decision-makers on student housing during the first decade of the new millennium is illustrated by the following extract from an address of the late Prof. H. Russel Botman, Rector and Vice-Chancellor (2007 to 2014) of SU, when addressing the Africa Summit on Student

¹⁷ Residential colleges are small, permanent, cross-sectional societies of students and faculty within Oxford, Cambridge and Durham Universities (www.collegiateway.org)

Housing on 30 May 2010, noting that “student housing is critical – even more for us here in Africa, where there is a great need to improve people’s lives”. Botman continued that “higher education is essential for development, and that better student housing is essential for better higher education. If we want to deliver graduates who can address the challenges of the continent, we need to re-examine our student housing in Africa. If we are serious about the redevelopment of the future, student housing requires reflection” (Botman, 2010).

According to Astin (1977, 1993c), there are eleven factors that contribute to the holistic development of a successful student, which are successfully used by the University of Idaho and Central Washington University, and were proposed for the ResEd initiative at SU. The eleven factors include:

1. hours spent per week on study
2. student-lecturer interaction
3. discussion of course content with peers
4. work on group projects
5. tutoring of other students
6. discussion of racial and ethnic campus issues
7. socializing with someone of another race or ethnicity
8. holding a leadership position in the student environment
9. internship at the university
10. voluntary work in community activities
11. part-time work on campus.

To implement the eleven factors, the residences and commuter student wards were divided into seven ResEd groups or clusters¹⁸. The residences in clusters were geographically grouped together and commuter student wards were each assigned to a cluster to integrate into the residence student communities. The cluster initiative became the organizing principle for academic and social affairs to enhance student success at SU (Kloppers, 2006a).

¹⁸ Clusters refer to the student community that consists of residence and commuter students organized geographically within ResEd groups.

A number of institutional factors need to be taken into account when attention is given to the growing numbers, the needs and success of commuter students.

4.5.1 Institutional residence placement policies

In order to address the realities of a changing 21st century democratic South Africa, SU has adapted its policy for placement in residences. Whereas in the past academic merit was the most important criterion for admission into residence, the policy has now shifted to specifically accommodate vulnerable students. In this way the residence placement policy also supports the vision, mission and long-term organizational goals of SU. The new policy (implemented in 2017) also aims at enhancing the diversity profile of students in university residences. A key principle in the placement policy of SU, *enhancing **excellence** through **diversity***, contributes to creating an environment that makes it possible for students to learn from heterogeneous groups within student and learning communities (SU, 2015a). Another reason why SU tries to accommodate as many vulnerable students from disadvantaged education backgrounds as possible in residences, is to promote their chances for academic success and to integrate the in-class and out-of-class environments. Student numbers according to race in the different types of accommodation at SU during 2013 and 2016, are presented in Table 4.10. These figures demonstrate the growing number of commuter students not living in institutional-owned accommodation, as well as the effect of the implementation of the new placement policy, in that the numbers of white students in university residences have declined, whereas significant growth in the numbers of particularly black and Indian students in residences is noticeable.

Table 4.10: SU student enrolment by accommodation type and race, 2013-2016

Type of accommodation	Race								Total	
	White		Coloured		Black		Indian			
	2013	2016	2013	2016	2013	2016	2013	2016	2013	2016
	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
University residence	4 244	3 904	1 188	1 352	662	1 038	66	172	6 160	6 466
University house	105	132	27	81	24	87	0	5	156	305
University apartment	357	399	236	345	352	425	26	30	971	1 199
Private	13 718	14 472	3 041	3 665	3 559	4 079	551	668	20 869	22 884
TOTAL	18 424	18 907	4 492	5 443	4 597	5 629	643	875	28 156	30 854

Source: Fact Book Part 1 (SU, 2017b, p. 61)

Although more beds were added with the expansions to current residences and the building of a new postgraduate residence between 2010 and 2014, in 2016 only 25.3% of students lived in university-owned housing. Students who live in private hostels, private accommodation, family homes or other non-institutional accommodation constitute 74.7% of the total number of students enrolled at SU. These figures support the reason why SU has to create opportunities to better support non-residential or commuter students, as they are by far the majority.

4.5.2 Needs and concerns of commuter students

Several attempts to improve the life of commuter students at SU as well as research done, indicate that success is a result of the manner in which students experience student life on campus (Bitzer & Troskie-De Bruin, 2004; Kloppers, 2006a). Due to ongoing concerns of staff and students about the university experience of commuter students, a *Task Team for the Advancement of the Integration of PSO Students in Learning and Living Communities* was appointed in 2008 to investigate and address the needs of the increasing number of commuter students at SU and to improve their educational experience (SU, 2009). Some of the benefits that commuter students miss out on include the participation in educational out-of-class activities, living in university-owned residences, having conversations with faculty and peers that positively relate to persistence and satisfaction as well as gaining graduate attributes to successfully

cope with situations and challenges that are unique and unexpected (Kuh, 1995, pp. 123-126). The survey of PSO students by the Task Team (2008) confirmed that the way students experience a university directly influences their success and this was further confirmed by national and international experts in the field (Astin, 1975, 1985; Pascarella & Chapman, 1983; Pascarella & Terenzini, 1980, 1991). The university realised that the university experience of the commuter students needed to be enhanced. The Task Team was appointed by the Vice Rector (Teaching) to focus on the following aspects:

- (a) the way the university experience impacts on day-students, especially those commuting to campus;
- (b) the optimal use of the University's timetable in view of the safety risks for day-students when they write tests in the evenings;
- (c) all possible implications should the timetable for the existing class and test roster be changed;
- (d) the impact of timetable changes (including test timetables) on organised sport activities;
- (e) the legal implications of meetings during lunch time, especially with regard to basic conditions of employment;
- (f) time scales for the handling and implementation of changes to the timetable;
- (g) any other applicable factors that might impact on the class and test timetable; and,
- (h) the management and utilization of the Study Centre at the JC Smuts Building, with special attention to the needs of commuting students (SU, 2009).

The Task Team was divided into four groups and the different groups had to focus on the following (SU, 2009):

Working Group 1:

- * consider impact of timetable changes on day- and test-timetables;
- * consider the optimal utilization of the day-timetable with a view to improving the safety of students (e.g. to move away from evening tests);

- * consider the legal implications of holding meetings during the midday session with specific reference to the Basic Conditions of Employment Act;
- * consider any other implications with regards to the above.

Working Group 2:

- * review the current situation with regard to the handling of day-students and those who commute.

Working Group 3:

- * consider the impact of a changed day-timetable on sport.

Working Group 4:

- * consider the management and utilization of the Study Centre for PSO students;
- * consider the utilization of other spaces and venues for day- and commuting students.

The Task Team (SU, 2009) made some *recommendations*, amongst others that special attention should be given and provision made for PSO students to experience the university in the same way as residential students, particularly with a view to getting their academic success on par with that of residential students. It was further observed that the out-of-class experience plays a crucial role in the development and growth of students, and therefore significantly impacts their academic performance. In order to assist commuter students optimally, the timetable needed to be revised and appropriate physical spaces needed to be identified or created for specific use by commuter students. Proposals were introduced to change the timetable so that these students could have more time to participate in tutor and mentor groups in the out-of-class environment, and to move evening tests earlier to prevent the 'driving' commuters from having to travel late at night with public transport. The Task Team believed that, if the recommendations could be implemented, it should positively influence the throughput rates of SU commuter students, and that it could lead to an improved image of the university as more accessible, more adaptable and willing to create space for all kinds of activities associated with an environment where students and staff can flourish. Furthermore, it was pointed out that the integration of PSO students in learning and living communities would require a systemic-holistic approach.

The report of the Task Team led to a better understanding of the importance of the *utilization of physical spaces* at SU and how it could benefit the PSO and commuting students. This sent a powerful message to these students, namely that the university is caring and committed to enhance the university experiences of all its students. It was also envisaged that the integration of the PSO students would have a positive effect on their academic success and throughput rates. However, financial resources remain a challenge when some of the recommendations are to be implemented.

Further investigations by SU into the needs and concerns of commuter students were done in 2009 and are elaborated upon in the following section.

4.5.3 Further institutional investigations into the needs of commuter students

Another *Survey of the out-of-class experiences of Stellenbosch University Students*, done by the Centre for Research on Science and Technology at SU in 2009, was launched to assist the management of SU to understand the out-of-class experience challenges and to guide the development of improving the services offered in the co-curricular spaces.

The results of the survey indicated that undergraduate students spend less time on academics than masters and doctoral students. Undergraduate students admitted that academic activities were not one of the main three activities in which they participated in the out-of-class environment. There were, however, clear differences between population groups, with black students indicating that studying was one of their main activities (Boshoff et al., 2010). In the same survey, almost 29% of the participants indicated that they drive alone to campus and that they have a need for a day house or lounge area to rest, to play games, watch movies and to shower between classes or directly after class, as well as available parking spaces. The commuter students also indicated that they needed additional study spaces during exams, as well as a place to study and buy snacks at the same time, whereas 3% of the participants were in critical need of finances (Boshoff et al., 2010, p. iii). The survey (Boshoff et al., 2010) further indicated that to socialize with friends was their main out-of-class activity, and that half of all the participants did not regard academic activity as noteworthy of being mentioned. Black students were the only exception to this tendency, because

academic-related work was their main priority when socializing. This is of course a concern, because ideally social spaces should be an extension of the in-class and out-of-class experience.

To further address the success of commuter students, SU appointed a Task Team on *The future use and organization of private student wards to promote student success within the context of the cluster initiative* in 2015, specifically to address the structure of commuter student wards within the clusters. This included the formulation of goals for commuter student wards that should take into account the developments happening in clusters, the infrastructure changes intended to make commuter students feel more at home and the need to be more inclusive and to embrace diversity. Some recommendations included that the commuter student wards should be expanded to include academic integration, utilization of facilities in the cluster and service provision to more senior students. The commuter students need to get more equal bargaining power in the cluster, and the development of cluster leadership has to be addressed in this regard (SU, 2015b).

From the investigation of the *Survey of the out-of-class experiences of Stellenbosch University students*, it became clear that commuter students need additional facilities, including parking spaces (83%), additional study areas during exams (73%), place for PSO students to study and buy snacks at the same space (38%), movie facilities (37%), sokkie joints (to dance – 34%), additional night clubs (28%), additional sports facilities (20%), places for prayer and worship (19%), and additional facilities for student societies (15%) (Boshoff et al., 2010, p. ii).

It is therefore important to discuss learning spaces as a potential positive influence on commuter students' success at SU.

4.5.4 Learning spaces for commuter students

Learning spaces can include virtual and conceptual spaces (Oblinger, 2006) and are seen to be a product of design processes that rely on assumptions of the relationship between types of spaces and practices of learning (Oblinger, 2005). Furthermore, studies have found a correlation between different styles of learning and the environment that institutions create for learning (Kolb & Kolb, 2005). Astin believes that

the energy, time and motivation that students assign to their learning experience determine their retention, and that the effectiveness of students' educational experience depends on interaction with "people (faculty, student affairs staff, peers), physical spaces, and cultural milieus" (American College Personnel Association, 1994, p. 2 in Jacoby, 2015, p. 13). The positive effect of the integration of students' academic and social spheres on student success has been well documented, but it is difficult to pin down the connection between the social, academic and personal constituents that determine student success (Bitzer, 2009a; Terenzini et al., 1996). Jacoby (2000b, p. 4) postulates that students live in companionship with others to learn from and compete against one another in spaces where they feel a sense of belonging (Bloomquist, 2014) and community (Townley et al., 2013).

Commuter students often feel disconnected from their community and a lack of satisfaction with the institution, because they do not have spaces where they can spend time when they are not in class or when they wait for transport to go home (Jacoby, 1990). The *Survey of the out-of-class experiences of SU students* also indicated that one fifth of the participants "feel alone" (Boshoff et al., 2010, p. vi), with the black and coloured students feeling the most alienated. By creating learning spaces where residential and commuter students can integrate, participate in the broader campus community and develop own identities, the institution can help commuter students to work with peers and on their own, creating independent and self-directed learners (SU, 2012c). To further understand the design of learning spaces in the campus communities, it is necessary to understand that the spaces can positively impact learning or it can cause disconnection and alienation.

The 21st century, in which learning spaces are designed, outlines that students are technologically advanced and therefore like to be connected with lecturers, friends, family and social media. To address their needs, learning spaces have to encourage formal and informal learning, conversations and active learning at any time and any place. Time limitations, as an important concern, impact commuter students specifically, because they work off campus, have to travel, or have different life roles to fulfil and cannot devote all their time to study. The process of designing learning spaces concomitantly needs to involve all stakeholders (Lomas & Oblinger, 2006, pp. 1-2). The question, as posed by Lomas and Oblinger (2006, p. 1), is appropriate: "how

can learning spaces bring students and faculty together, ensuring that the environment promotes, rather than constrains, learning?”

At SU the utilization of available physical spaces in reception areas of faculty buildings, corridors and social spaces outside faculty buildings and on campus enhances opportunities for conversations and learning to happen. The residence environments where the residences and commuter student wards are grouped in clusters, contribute to the forming of student communities which promote student learning, and will further be discussed in Chapter 5.

4.6 AMAMATIES HUB AS LEARNING SPACE FOR COMMUTER STUDENTS

Keeling and Dungy (2004, p. 34) explain why it is necessary to address commuter students' experience of the university: “All campus educators should commit to identifying and integrating community-based learning experiences so commuters, adult learners, graduate students, and part-time students can create a holistic experience by learning from their total environment”.

The *Task Team for the Advancement of the integration of PSO Students in Learning and Living Communities* (SU, 2009) took cognisance of the big differences between the university experience of commuter and residential students and made recommendations to deliberately address these differences. To improve the student experience and success of commuter students it became necessary to arrange the campus structure around student housing in such a way that commuter students also benefit from the factors that make students in residences more successful. This was done through the integration of commuter students with students in residences in seven larger living and learning communities, called clusters. These communities or clusters achieve the integration through the organizational structure, and the building of a dedicated on-campus facility. This on-campus facility, known as the amaMaties hub, was strategically placed within the geographical environment of the existing residences that form part of the amaMaties 'cluster village'.

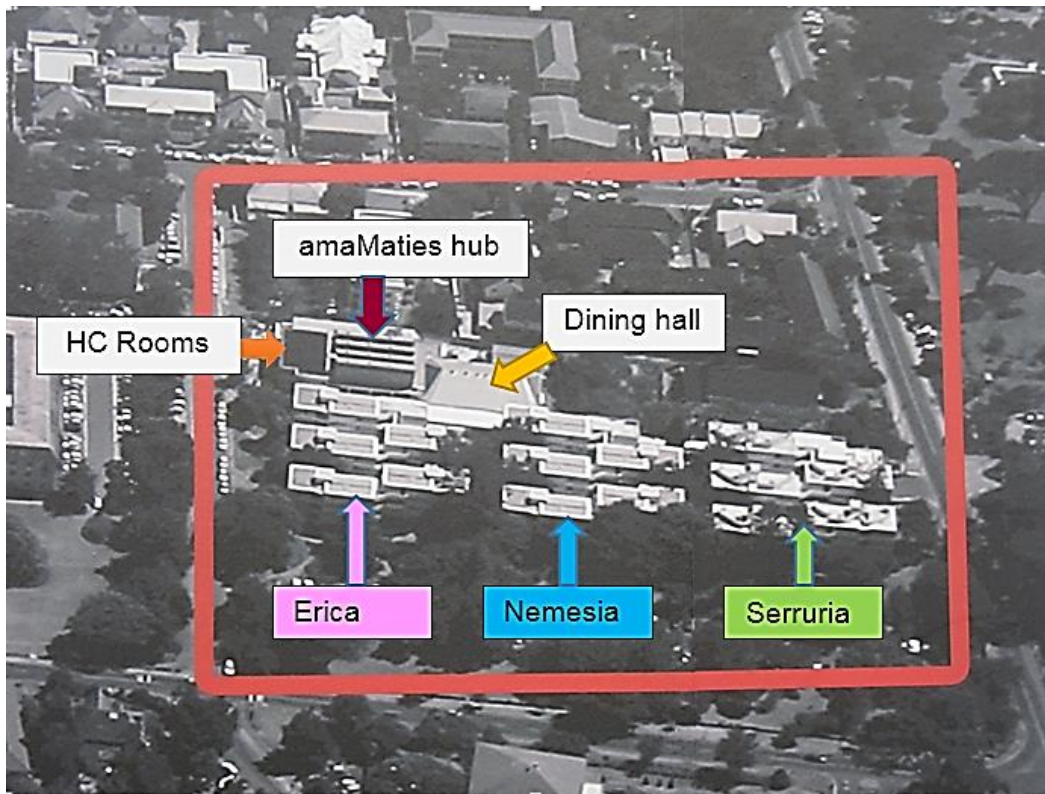


Photo 1: Aerial photograph of the three female residences, HC rooms, dining hall and amaMaties hub

Source: Author



Photo 2: Entrance to the amaMaties hub that was built on an existing kitchen roof

Source: Author

The hub consists of a physical facility that provides the following services to the commuter students in the cluster:

- Communal interactive areas.



Photo 3: Communal interactive area

Source: Author

- Food services e.g. dining hall and deli



Photo 4: The dining hall at the amaMaties hub

Source: Author



Photo 5: The deli at the amaMaties hub

Source: Author

- Academic support

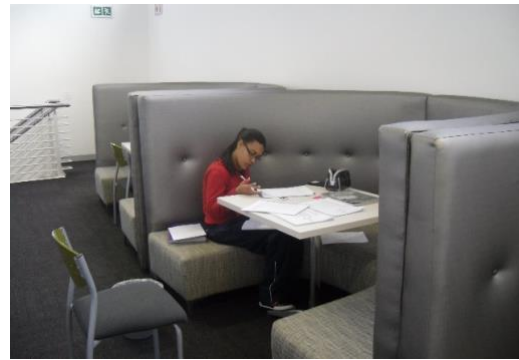


Photo 6: Academic support

Source: Author

- Study and workspace



Photo 7: amaMaties students studying in the hub

Source: [http://www.sun.ac.za/english/Documents/About/YearReport/2013/SU Annual Report 2013.pdf](http://www.sun.ac.za/english/Documents/About/YearReport/2013/SU%20Annual%20Report%202013.pdf)

- Wifi.
- Recreation spaces.



Photo 8: Braai area at the amaMaties hub (previously a bicycle shed)

Source: Author

- Bedrooms for the house committee members of the commuter wards (Libertas and Equité).



Photo 9: Living area and bedroom of the House Committee Members of Libertas

Source: Author

- Safe access 24 hours per day with student cards.
- Information regarding academic and non-academic activities within the cluster.
- Overnight facilities for commuter students when they have to write exams or tests or attend co-curricular activities late in the evenings



Photo 10: Overnight facility for commuter students at amaMaties hub

Source: Author

The facility is multifunctional and this can be seen in the different spaces provided.



Photo 11: The multifunctional amaMaties hub facility

Source: Author

The residence environments where the residences and commuter student wards are grouped in clusters contribute to the forming of student communities which promotes student learning, and will further be discussed in Chapter 5.

4.7 CONCLUSION

This chapter focused on SU pre- and post-1994. The impact of widening access on student success and why engagement, as part of student holistic development, is so important, were discussed. There was a particular focus on a comparison between the

retention and success rates of residence and commuter students. The needs of commuter students were identified and briefly discussed, illustrating that – to ensure commuter student involvement, engagement and success – virtual and physical learning spaces need to be designed and provided.

The next chapter will look more closely at the importance of learning communities and the different theories of student involvement and engagement.

Chapter 5

THEORETICAL PERSPECTIVES ON THE IMPORTANCE OF STUDENT LEARNING COMMUNITIES FOR STUDENT ENGAGEMENT AND SUCCESS

5.1 INTRODUCTION

The rates at which various student groups complete their degrees at SU, and the initiatives in the institutional arena to help students to persist and complete their degrees, were discussed in Chapter 4. This discussion also alluded to student engagement being positively related to student success, persistence, satisfaction and to the personal development that takes place in student learning communities (Kuh, 2016, p. 9).

In this chapter the researcher will discuss student engagement and the theories of engagement, with specific reference to Astin's Theory of Involvement (1984) and the Input-Environmental-Outcomes (I-E-O) Model (1993), whereafter the importance of student learning communities for student engagement will be elaborated upon.

5.2 STUDENT ENGAGEMENT

Tinto (2006), Kuh et al. (2011) and Berger and Milem (1999) recognised student engagement as an important influence on the individual learning process and on student success, and also how teaching, socio-cultural aspects and a holistic perspective work together in order for students to be successful. Tinto (2012) emphasized that if engagement does not happen in the class and in the student's first year, it is most unlikely that it will happen later. When the social and academic environments of students are integrated (Tinto & Goodsell-Love, 1993), and their personal experience is captured in the curriculum, it can have a positive effect (Love & Goodsell-Love, 1996) on student success.

In this context, student engagement (Astin, 1984; Kuh, 2001a, 2003, 2009) refers to the psychological and physical commitment that students invest to be involved in

learning at higher education institutions and in what institutions do to involve students. When investigating theories of student engagement, it is necessary to understand the term 'student engagement' or 'involvement' in the context of higher education. Many definitions of student engagement have been proposed since the 1980s and 1990s, which all refer to the degree to which students pay attention or show interest, passion and motivation when they learn (Tinto, 2006). According to Kuh (2001a, 2003, 2009) student engagement also represents the time and effort students spend on educational activities that contribute to educational outcomes, and on what universities do to include students to voluntarily participate in educational activities. Kuh (2003, 2016) describes engagement as the time and energy that undergraduates invest in learning collaboratively with the variety of "policies, programs, and practices" (Kuh, 2016, p. 49) that higher education institutions apply to ensure that all students eventually complete their degrees and that they have gained the knowledge or maximized the benefits of their higher learning to thrive in the workplace.

Trowler and Trowler (2010, pp. 7-9) argued from their literature review on student engagement that it improves performance, persistence and satisfaction. Positive outcomes such as time spent on task, the quality of the effort that the students devote to learning as well as their involvement, have frequently been identified throughout the literature (Astin, 1984; Braxton, Milem, & Sullivan, 2000; Kuh, 1995; Kuh et al., 2005; Tinto, 1987). Chickering and Gamson (1987), referred to in Chapter 2, proposed seven effective practices for teaching undergraduate students. These included academic challenges, interaction with staff outside the classroom and the response to individual student needs, combined with participation in extra-curricular activities and interaction with a diversity of peers, which could all be positively linked to improved outcomes (Trowler & Trowler, 2010, p. 8). Trowler and Trowler further found (p. 9) that engagement also improved students' general abilities and critical thinking (Endo & Harpel, 1982), practical competencies and life skills (Kuh, 1993), cognitive development (Astin, 1993c; Kuh, 1993), self-esteem, psychosocial development, productive racial and gender identity formation (Quaye & Harper, 2014), moral and ethical development (Jones & Watt, 1999), student satisfaction (Kuh et al., 2005), academic grades (Astin, 1977, 1993c) and persistence (Berger & Milem, 1999; Tinto, 2003). The value of student engagement, according to Trowler and Trowler (2010), could therefore no longer be questioned. This has also been confirmed through the

National Survey of Student Engagement (NSSE) that was developed by Kuh and his associates in the United States of America and is also used in Canada, Australia and New Zealand (AUSSE) and in South Africa (SASSE), measuring student engagement in hundreds of institutions.

To better understand what happens when students are engaged, four theories of engagement will be elaborated upon in the following section. The importance of these theories for universities lies in the lessons to be learnt on how to enhance engagement among students.

5.3 THEORIES OF STUDENT ENGAGEMENT

In this section, Astin's Theory of Involvement and Input-Environmental-Outcomes (I-E-O) model, Tinto's model of student retention and Milem and Berger's causal model of student persistence will be discussed in order to better understand factors that influence students' participation and persistence in higher education.

5.3.1 Astin's Theories of Involvement

5.3.1.1 *Astin's Theory of Involvement (1984)*

Astin (1984, p. 518) defined student involvement as the "amount of physical and psychological energy that a student devotes to the academic experience", whereas the uninvolved student is described as one who "neglects studies, spends little time on campus, abstains from extracurricular activities, and has infrequent contact with faculty members or other students". He continued to say that "people invest psychological energy in objects and persons outside of themselves" (p. 518) and that active involvement includes behaviours such as: attach oneself to; commit oneself to; devote oneself to; engage in; participate in; show enthusiasm for and take on, etc.

Astin's Theory of Involvement has five assumptions as basis for reasoning (p. 519):

1. Involvement refers to the investment of physical and psychological energy in various objects that may be highly generalized (the student experience) or highly specific (preparing for a chemistry examination).

2. Regardless of its object, involvement occurs along a continuum; that is, different students manifest different degrees of involvement in a given object, and the same student manifests different degrees of involvement in different objects and at different times.
3. Involvement has both quantitative and qualitative features; how many hours a student devotes to the academic work (quantitatively), and whether the student intensely studies the work or assignments or just stares at the work for hours (qualitatively).
4. The amount of student learning and personal development associated with any educational program directly corresponds to the quality and quantity of student involvement in the specific program.
5. The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement.

The theory further argues that students need to put a lot of effort and time into their studies in order to ensure that the knowledge, skills and abilities that they have to attain to achieve positive outcomes, are acquired, and that the faculty should focus more on what the student does instead of what they as educators do (Astin, 1984, p. 522). Higher education is, however, greatly affected by the last two assumptions, namely the amount of student learning and personal development associated with any educational program and the effectiveness of any educational policy or practice, because these assumptions could determine which programs and initiatives an institution needs to develop in order to enhance student involvement.

The theory is thus concerned with the behavioural mechanisms or processes that facilitate student development and student success within a student community, and ties strongly to the notions of learning communities discussed later in this chapter. This theory is often used in higher education, because the positive outcomes of involvement pertain not only to in-class experiences, but also to student involvement in the out-of-class environments. Student involvement has a positive effect on student retention, a notion that will be explored in more detail in Tinto's model. Astin further stated that this theory explains how desirable outcomes of higher education institutions are viewed in relation to how students change and develop as a result of being involved in the out-of-class environment, and that three elements are included in the development of

students during their studies. These elements that explain the relationship between the development of students and the students' input and learning environments (Norwani, Yusof, & Abdullah, 2009, p. 84) are captured in Astin's I-E-O model.

5.3.1.2 Astin's I-E-O model (1993)

Following on his Theory of Involvement, Astin (1993a; 2012, p. 3) developed a framework for assessment in higher education, defining assessment as the collection of information and the use of the information to evaluate or improve what exists, with the purpose of assessing being to extend the educational mission of the institution. The model therefore illustrates the cause and effect between the students' input and the outcomes of their educational experiences at the institution. In support of Astin's Theory of Involvement (1984), he proposed the *Inputs-Environment-Outcomes* (I-E-O) model (1993) to guide assessment and evaluation in higher education environments (Figure 5.1) and to consider what happens between the *inputs*, *environment* and the *outcomes* of students in their higher education experience.

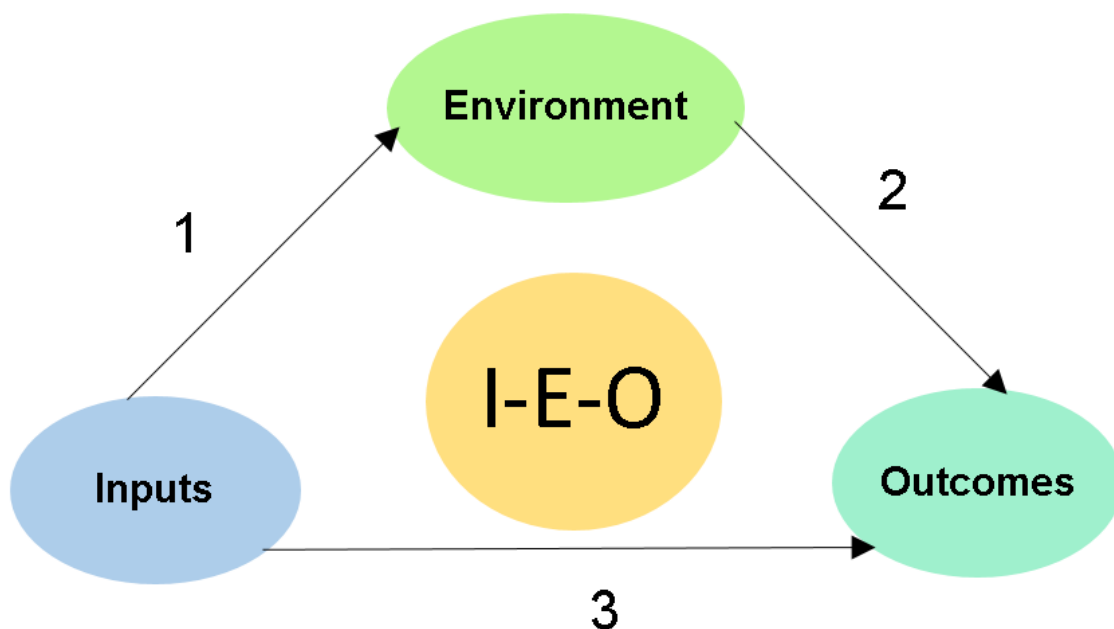


Figure 5.1: Astin's Input-Environment-Outcome (I-E-O) Model

Source: (Astin, 2012, p. 20)

The *inputs* of this model primarily refer to the initial pre-entry attributes of students that include demographics, family background, personal skills and abilities, as well as participation and achievements at high school level before entering university. These

attributes determine the student's goal and institutional commitments, as well as the external commitments of students. The *environment* refers to the institutional experience of students which occurs in the academic and social environment and includes various programs and policies, lecturers and peers to which they are exposed (Bartram, 1993). The academic environment comprises of the curricular and co-curricular activities that take place at institutions. In the curricular environment, the students actively participate in extracurricular offerings. The informal co-curricular spaces are used to build networks by socializing with their peer-groups and with society (Bitzer & Troskie-De Bruin, 2004).

The *outcomes* in this model further refer to the academic and social goals, perceptions of intellectual abilities, sense of civic engagement, sense of belonging, talents and the overall mission that institutions want their students to accomplish after exposure to their educational programs. Astin (2012, p. 19) explained that the *environment* can be organized to maximize the personal development of students. The arrows in Figure 5.1 depict the relationship between the inputs, environment and the outcomes components. In Figure 5.1, number one (*number 1*) indicates that different students will choose different environments to develop and educate themselves, that they influence the relationship between their environment and the outcomes reached, and these can be called control variables. Assessment and evaluation (*number 2*) in this model are concerned with how the environment shapes itself to add to the holistic development and outcomes of the students involved (p. 20). To understand this model, the talents, identities and backgrounds of the students (inputs) over a period of time (*number 3*) will have a direct influence on the outcomes reached.

Hu and Kuh (2003) argued that the I-E-O model incorporates the reciprocal action between the *inputs* and the *environment*, which encapsulates the intentions and the way in which students respond to the institution in collaboration with the staff, the fiscal resources and the facilities and services provided at the institution. When applying the I-E-O Model, assumptions are made that students enter university with their own individual and behavioural backgrounds, which are pre-determined, through their engagement with their external communities. Different elements of influence and experiences such as programs, policies, practices, student communities and cultures determine their engagement with the institutional learning environments (Kisker et al.,

2016). Dunn (2013) posits that the interaction that students have with the environment is the central focus point of the model and that students' development refers to the influence of the environment on their engagement.

As this is a natural experiment (Astin, 2012), the research involved studying the effects of the many different environmental aspects on student development. This study investigated whether the environment and practices in the amaMaties cluster were effective in serving the needs of commuter students by integrating them into the residential learning community. The I-E-O model will therefore be used to evaluate the effectiveness of the practice (Astin, 2012; Bitzer & Troskie-De Bruin, 2004; Brower & Inkelas, 2010; Cole & Korkmaz, 2013; House, 1998; Hu & Kuh, 2003; Long & Amey, 1993; Thurmond & Popkess-Vawter, 2003) to address the needs of commuter students.

5.3.2 Tinto's model of student retention (1975, 1993)

In 1975, Tinto started investigating the extent of higher education student dropout and the nature of the process. He indicated that it is necessary to understand the connection between student involvement, student success and student dropout and stated that there are four elements pertaining to students' attributes and persistence. Research has proven that it is difficult to determine exactly why students drop out from college, because reasons can be two-fold: firstly due to academic failure, or secondly due to voluntary withdrawal (Tinto, 1975; Tinto & Goodsell-Love, 1993). Some reasons that are given for student dropout refer to the social conditions, such as little contact with peers, a low commitment level to the institution and to their own goals, and poor integration of the social and academic domains, together with a lack of conformity between the student and the institution (Cabrera, Nora, & Castaneda, 1993). Some individual features (e.g. social status, high school experiences, sex, ability, race and ethnicity) that influence persistence are reflected as educational and individual expectations, institutional and financial commitments and family or parents that have attended the same institution (Kuh, 2001a, 2001b).

This model further accepts that different personal and background characteristics of students influence how they view the same life situation differently. Even if the academic, social, costs and benefits, and activities offered by an institution may all be

the same, it is the intention and perception of the individual that matters (Tinto, 1975, 1987). Tinto's theory indicates that there is a correlation between the "student's motivation and academic ability and the institution's academic and social characteristics" (Cabrera et al., 1993, p. 124), and that there are two dimensions of commitment that directly influence the persistence or departure behaviour (Tinto, 1975). The institutional commitment comes from the motivation and support services that the university provides to students, whereas the personal goal commitment lies in the intrinsic motivation and commitment that the students devote to their studies until graduation (Tinto, 1975, 1987). The theory also postulates that the more integrated the social and academic domains of students and institutions are, the less chances there are of dropping out from higher education and the more likely it is that students will persist until graduation.

Milem and Berger (1997) integrated Astin's *Theory of Involvement* and Tinto's *Theory of Student Persistence*, because they believe that there is an interaction between students' behaviours and perceptions and how these behaviours and perceptions influence the development of their academic and social domains. Their causal model will therefore be briefly reviewed.

5.3.3 Milem & Berger's Causal Model of student persistence (1997)

Astin (1984) related what students do, how they behave and act to their involvement. Tinto and Goodsell-Love (1993) referred to how student engagement influences their behaviour and to the integration between the social and academic environments. Milem and Berger (1997) researched the relationship between students' behaviours and perceptions and how this interaction influences their development. They firmly believed that students start to interact with the environment the moment they enter the campus environment. Astin (1984) referred to the factors of involvement that contribute to students' persistence, but also to factors of uninvolvement that contribute to students' dropout from higher education institutions. He emphasized that involvement is behavioural in meaning, because it indicates that what the individual does, and how the individual behaves, will affect the educational outcomes. Tinto (1993) supported this notion by emphasizing how important it is to understand the relationship between student involvement and the impact that involvement has on student persistence. The revision of his initial model (1975) explores the reciprocal action between the

individual's behaviour and the perception that the individual has during the academic and social integration process. The causal model therefore increases our theoretical and practical understanding of how students' behaviours and their perceptions interact to influence the social and academic integration process (Berger & Milem, 1999, p. 642). Pascarella and Terenzini (1991) affirmed that both the model and the theory cover the notion of student persistence and that it is necessary to also examine the indirect effects within the causal model.

The results further indicate that *social integration* plays a more dominant role in predicting persistence than *academic integration* and that students whose values, norms and patterns of behaviour have been established before coming to university, are more likely to integrate their social and academic environments. Berger and Milem (1999) posited that institutions need to acknowledge in policies and practices the importance of the degree to which these behaviours and perceptions form part of the same process, as the one changes the other in order to better integrate into the social and academic environments. It is therefore necessary to assess the academic and social environments of institutions and to address the role and importance of student learning communities.

5.4 THE IMPORTANCE OF STUDENT LEARNING COMMUNITIES

In the context of higher education, learning communities involve groups of students who collaboratively work together and who share common academic goals (Kuh, 2016). The notion of learning communities originated with Alexander Meiklejohn's (Meiklejohn, 1932) experiment when he tested the learning community concept in the Experimental College program at the University of Wisconsin, from 1927 to 1932 (Soldner & Szelényi, 2008).

Learning communities only gained prominence in the late 1980s (Shapiro & Shapiro, 1999; Zhao & Kuh, 2004), whereas the influence of learning communities on student learning and success has been acknowledged since the early 1990s (Kuh, 2008). The aim of learning communities is to improve undergraduate student success in higher education by encouraging participation in both curricular and co-curricular spaces (Inkelas et al., 2007; Inkelas et al., 2008; Rocconi, 2011). Many authors agree that learning communities are an essential determinant for student success (Hill &

Woodward, 2013; Pike, Kuh, & McCormick, 2011; Lardner & Malnarich, 2008; Terenzini et al., 1999; Tinto, 2003). Learning communities also help students with the transition from school to university and have been linked to positive learning outcomes (Zhao & Kuh, 2004), openness to diversity and less binge drinking behaviours (Pike et al., 2011).

The wide variety of types of learning communities and living-learning programs, however, confounds the assessment of the value that these communities add in terms of student learning. A typology of living-learning programs and the use thereof in the “assessment of students’ learning outcomes” (Inkelas et al., 2008, p. 495) captured the attention of practioners aiming at improving undergraduate students’ learning experience in higher education. In Figure 5.2 conceptual typologies of student learning communities proposed by Inkelas et al. (2008, p. 498) help to establish a clearer understanding of the range of forms that student communities and living-learning programs can take.

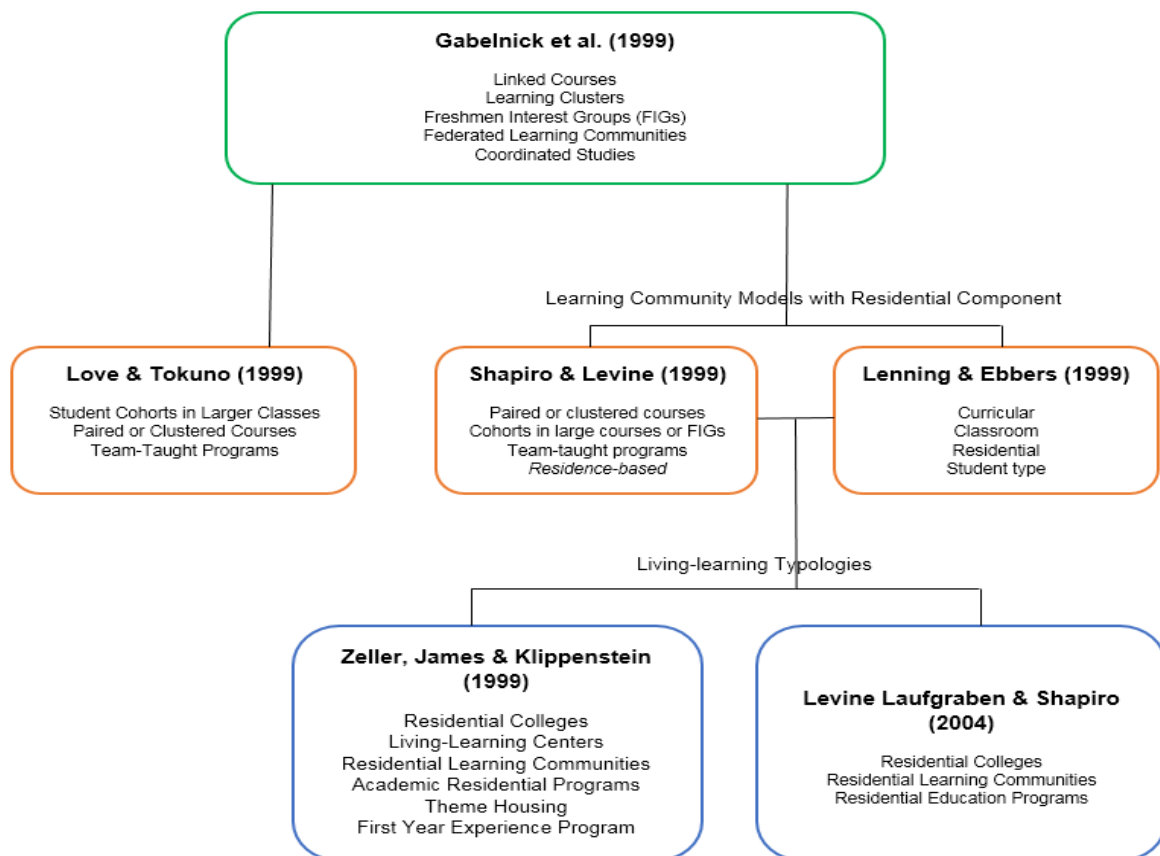


Figure 5.2: Conceptual typologies of learning communities

Source: Inkelas et al., 2008

This typology has the potential to extend the understanding of the living-learning experiences of undergraduate students together with the role that these experiences play in different learning outcomes (Inkelas et al., 2008, p. 499). The questions of who should oversee the programs, what the role of faculty will be and how resources will be integrated into the programs, remain a challenge to be jointly addressed by both academic affairs and student affairs at HE institutions.

This notion that learning communities have an important role in student success was further supported by Love and Goodsell-Love (1996) who stated that, for holistic learning to happen in learning communities, the intellectual, social and emotional aspects of learning need to be taken into account, the link between the in-class and out-of-class experiences (Kuh, 1995) needs to be maintained, faculty, student affairs and students cannot be segregated, and living and learning environments cannot be isolated from one another (Parameswaran & Bowers, 2014, p. 58). Allen and Haniff (1991), Astin (1993c) and Trowler (2010) posit that students need to integrate into learning communities, because in those communities they learn from and interact with diverse peer groups, with ensuing positive educational outcomes (Pike et al., 2011).

Leary, Kelly, Cottrell, and Schreindorfer (2013) noted that people living together spend a lot of time communicating directly and indirectly as well as influencing the natural association through the social commitments that occur in the space. Some of the factors that influence the social commitments of students include personality traits, the need to affiliate with others and the need to feel that they belong at the institution or in the environment (Leary et al., 2013, p. 610). The fact that universities universally struggle with high attrition rates, emphasises the importance of creating student learning communities to establish a sense of community (Tinto & Goodsell-Love, 1993) where academic and social experiences integrate (Long, 2014; Sidelinger et al., 2016) in order to positively affect academic achievements (Townley et al., 2013).

For commuter students, however, it is difficult to find that “second home” (Weiss, 2014, p. 134) on campus, because of practical and logistical challenges. These challenges include the time to navigate the university systems to become academically and socially informed, dealing with transport, security and time spent commuting, finding

safe parking in challenging weather conditions, as well as finding food, participating in campus activities and trying to complete assignments before they go home. At home they may have family commitments to fulfil or homework to complete, they may not have internet access to complete assignments, or they may have part-time jobs (Jacoby, 1989; Weiss, 2014). Jacoby (2000b) importantly argued that the educational goals of commuter students do not differ from those of residential students and that commuter students want to be involved in learning communities (Newbold et al., 2011). The social context and interpersonal relationships that commuter students find themselves in, play an integral part in their success and engagement and are influenced by positive psychology and their emotional well-being (Seligman & Csikszentmihalyi, 2014a).

International, national and institutional perspectives on the value and role of learning communities that contribute to students' success and engagement are briefly discussed below.

5.4.1 International perspectives on the importance of student learning communities for student engagement and success

Astin's Theory of Involvement (1984, p. 518) explains that a student who actively participates in the educational experience "devotes considerable energy to studying, spends much time on campus, participates actively in student organizations, and interacts frequently with faculty members and other students". Such involvement relates strongly to the time and effort that students spend on and commit to the learning process. Students tend to be spectators in the classroom, because lecturers do most of the talking, leading to uninvolved learning. Learning communities can help students to study collaboratively, both inside and outside the classroom (Tinto, 2000).

Commuter students, however, have less time to spend on tasks and have to overcome a number of difficulties – as discussed in Chapters 2 (international perspectives), 3 (national perspectives) and 4 (institutional perspectives) – in order to be educationally successful. The learning communities in which they can learn and participate give commuter students the opportunity to form their own support networks inside and outside the classroom, let them close the gap between the academic and social

environments and enhance the quality of their learning that happens, because in Tinto's words, "in the learning community they 'learned better together'" (p. 12).

According to Cross (1998, p. 5), learning communities are positively related to *collaborative learning* where students broaden their knowledge by *working together*, thus fostering "active learning over passive learning, cooperation over competition, and community over isolation". This is especially important for commuter students and part-time students. Cross also refers to the role of learning communities in the *Seven Principles of Good Practice in Undergraduate Education* (Chickering & Gamson, 1987, p. 7) and posits that, when students have continual contact with faculty and peers, they are likely to be more satisfied with their educational experience, are more intellectually inquisitive and will have less desire to leave the university.

Some commuter students benefit more than others from engagement in learning communities, because research has shown that students who are less academically prepared benefit more from engagement as far as their persistence and grades are concerned than the more prepared students (Carini, Kuh, & Klein, 2006; Cruce, Wolniak, Seifert, & Pascarella, 2006). Oblinger (2005) argues that students and faculty like to control their environments and enjoy the flexibility of utilizing spaces in different ways to address their learning preferences and needs. He adds that today's students communicate constantly through technology and are very experiential, but commuter students also need personal interaction with their peers, faculty and family and are not easily drawn into learning communities. Therefore, learning communities need to be structured to extend the social interaction between residential and commuter students as they learn to study together, develop their identities and give them the opportunity to voice their opinions (Zhao & Kuh, 2004). When a positive sense of community is experienced in these communities, students feel included, that they matter to one another (Marshall, 2001), that their needs are met, and they develop the desire to be successful and the need to be engaged (Townley et al., 2013, p. 279).

As pointed out above, many authors have positively related student engagement with student success and persistence (Kuh, 2016; Nelson et al., 2014; Quaye & Harper, 2014) and argue that higher education institutions need to identify and address factors that negatively influence student success, but also need to identify early factors

influencing engagement. Figure 5.3 highlights the factors that were identified by Kuh (2016):

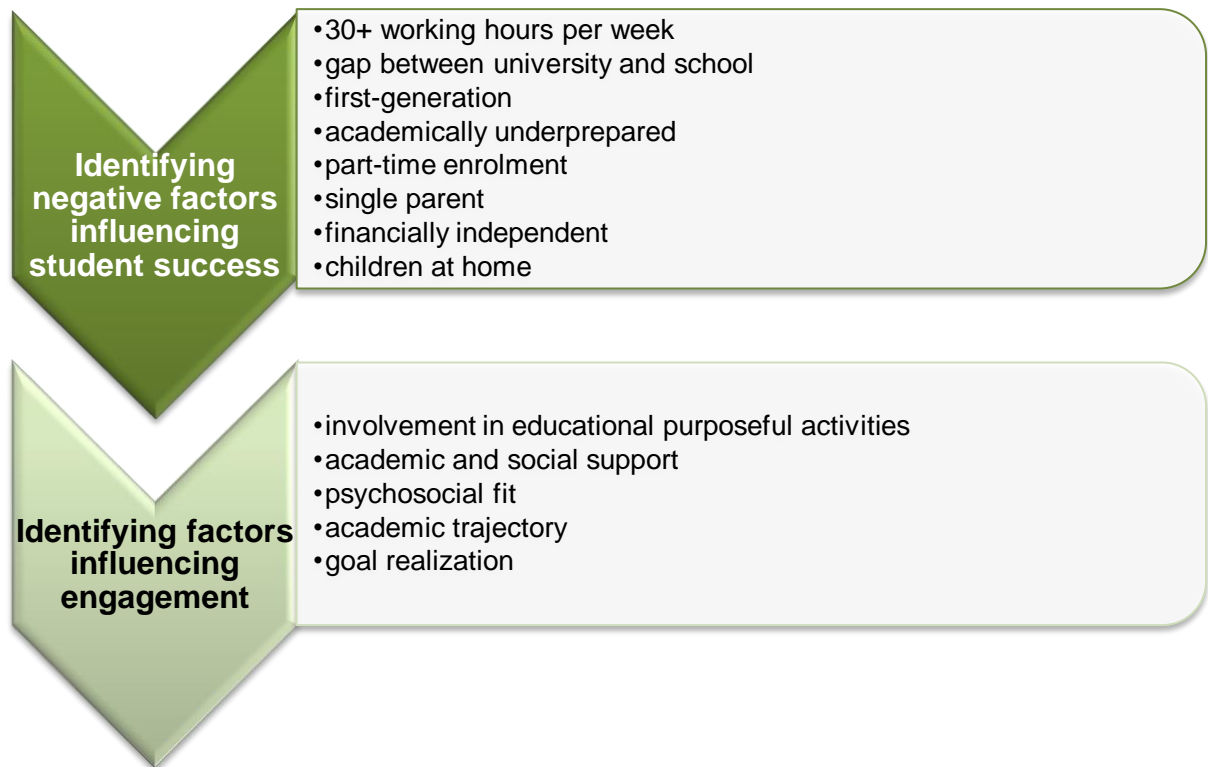


Figure 5.3: Factors influencing student success and engagement

Source: Kuh, 2016, p. 50

Kuh (2016), supported by Hill and Woodward (2013), concluded that the interaction of all the above-mentioned factors determines the social and academic development and success of students in learning communities during their educational experience. In addition to the factors mentioned above, institutions need to also prepare and equip graduates for work and how to be active members of society (Hughes & Barrie, 2010). In order to achieve that, the theoretical knowledge gained in the classroom must be supplemented by the work-skills demanded by the labour market, as well as the social skills that are established in learning communities or in co-curricular spaces created for learning. These educational skills prepare students as “agents of social good in an unknown future” (Hughes & Barrie, 2010, p. 325) and contribute to the graduate attributes that institutions want their students to have when entering the world of work (Barrie, 2007).

5.4.2 National perspectives on the importance of student learning communities for student engagement and success

As access to higher education in SA is widening and larger numbers of students are enrolling for post-school education, the student population is becoming more diverse. Whereas higher education is seen as contributing to the public and economic good of the country, adding personal value to and enriching the intellectual and cultural realm of the vigorous and vivacious South African youth, are equally important (CHE, 1999). The growing number of students in higher education has resulted in an increased demand for student accommodation, emphasizing both the need for new initiatives in the field of student housing, and the importance of accommodating students who are commuting in learning communities (DHET, 2011), as being involved in learning communities promotes student success and contributes to the individual and collective actions that make a positive difference in the community.

Little research has been done on learning communities in South Africa (DHET, 2011, p. 16), and with the exception of SU and the University of the Free State (UFS), formal institutional strategies to promote learning communities are rudimentary at the other South African tertiary institutions. The rectorate of UFS adopted the college model, as pioneered by the collegiate model, within their context. UFS accommodates approximately 20% of their student cohort in residences. Non-residential students are organised into colleges, accommodated in joint college events by sharing existing on-campus resources and thus moving the student communities from exclusivity to inclusivity and creating a different 'living' environment. The intention is to create space for both a healthy expression of shared identities, as well as the respectful expression of unique identities (Wahl, 2014 in, Botha & Kloppers, 2014).

Other South African voices in favour of student communities include that of the Vice-Chancellor of Nelson Mandela University, Derek Swartz, who made a presentation on the importance of residential learning communities at the national conference of the South African Chapter of the Association of College and University Housing Officers International (ACUHO-I SAC) in 2010, and at the Stakeholder Summit on Higher Education Transformation in April 2010 (DHET, 2010). In the *Report on the Ministerial Committee for the review of the provision of student housing at South African universities* (DHET, 2011, pp. 17-18), Swartz (in DHET, 2010, p. 18) argued that

student residences are strategically important, because both academic and social development occur in those spaces, fulfilling four key functions, namely “a pedagogical, a cultural, a social and a leadership function”, in addition to creating a sense of community. The recommendation to create living-learning communities was thus an important outcome of the Summit (DHET, 2010).

5.4.3 Institutional perspectives on the importance of student learning communities for student engagement and success

Taking account of research that has shown that student engagement has a positive effect on student success which includes the development of graduate attributes as well as academic success (Astin, 1984; Chickering & Gamson, 1987; Keeling & Dungy, 2004; Kuh, 1993, 2016; Quaye & Harper, 2014; Terenzini et al., 1999; Thomas, 2012; Webber et al., 2013), SU has over almost two decades developed a view of student success that is broader than solely academic success and includes notions of graduate attributes as well. SU therefore wants to create a platform for students to acquire graduate attributes to enable them to have an enquiring mind, to be an engaged citizen, a dynamic professional and a well-rounded individual (Jacobs & Strydom, 2014; SU, 2013).

According to the *First Year Academy (FYA) founding document* (SU, 2006), all first-year students, irrespective of background, must progress academically and develop into well-rounded students, as discussed in Chapter 4. This was considered in a reflection during the FYA initiative (SU, 2006) at SU and in a review of the experience of student culture renewal over a period of two years, which contributed to the initiative regarding academic residential education community groups or ResEd¹⁹ clusters, as discussed in Chapter 4. SU realised that when students apply for work, they compete with other students with similar qualifications, and to distinguish themselves, they need to develop on other levels in order to offer more than a degree (Kloppers, 2006a). The cluster initiative that was developed in Student Affairs (now the Centre for Student Communities (CSC)) in 2006, and which was first documented in early 2007, was reaffirmed in the *2010 Strategic Framework for University Housing* at SU (SU, 2012c). This initiative emphasized the academic success of first-year students in residences

¹⁹ ResEd clusters consist of a number of residences or living environments (including commuter student wards) that are grouped geographically and includes male and female students.

and commuter student wards. It also aimed at transforming the structure of student housing and the out-of-class experience (Kloppers, 2006a). The then Vice-rector (Teaching) at SU stated in 2007 that the integration of residential and commuter students are vital for student success. According to Kloppers (2006b), the thought framework for the seven clusters includes that students have to experience more intentional intellectual involvement in the traditional out-of-class activities. In this environment, students learn to take more responsibility for their own academic, social, cultural and leadership development. An improved academic or learning culture, including growing academic success among students in learning communities (Kuh et al., 2011), is the most important foundation of student culture in learning communities. The clusters support this by creating an environment where student success is optimal for both residential and commuter students (Tinto, 2003). Although, at the time of establishing the cluster initiative, the student leadership had bought in on student culture renewal in the residence environments, a more imaginative effort was needed to include seniors and first-year students in learning communities to fully support the academic goals of SU.

In response to the Vice-rector's statement, the CSC posed the following question: How does student housing contribute to a learning community environment that educates students to help shape and support healthy communities, while including a growing number of commuter students in an educational experience similar to that of residential students in order to improve the student success of commuter students? The ultimate aim was developing a student who: helps to shape and support healthy communities; strives to be academically excellent and to assist others; works purposefully with the scientific, technological and intellectual capacity of Africa; strives to be an active role player in South Africa; develops cultural versatility; is skilled in a context of diversity of ideas and who can function in a multilingual context, in line with the institution's Vision 2012 (Kloppers, 2006b, p. 13).

In response to the above question, and with a view to developing these skill sets, spaces for educating the minds of students were created in integrated learning communities, as seen in Figure 5.4 below.

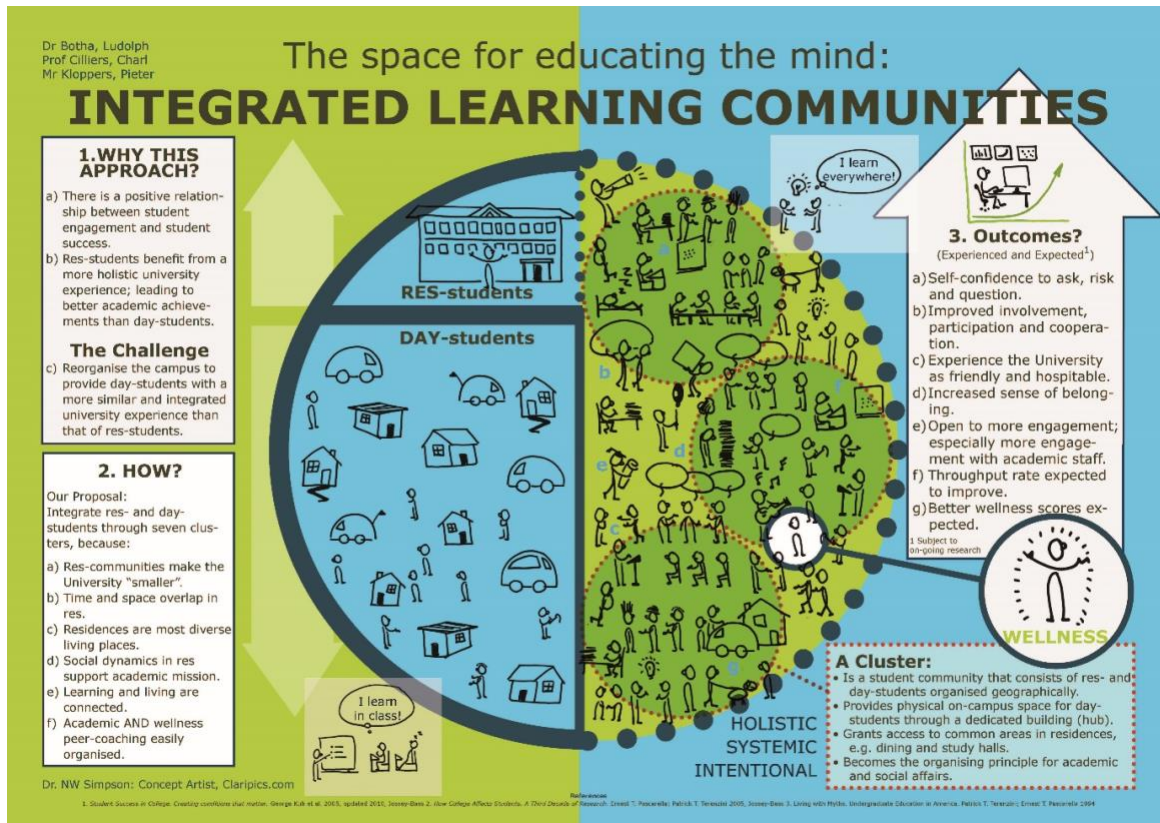


Figure 5.4: Integrated Learning Communities at SU

Source: (Botha, Cilliers, & Kloppers, 2011)

Concept artist: Dr Nico Simpson (www.claripics.com)

According to Botha et al. (2011); Kuh et al. (2011); Pascarella et al. (2005); Terenzini and Pascarella (1994) a positive relationship exists between student engagement and student success. Residence students benefit from a more holistic university experience providing more opportunities for engagement, which lead to better academic achievements than commuter students. The challenge was to reorganize the campus to provide commuter students with an integrated university experience similar to that of residence students. Botha et al. (2011) proposed that residence and commuter students be integrated in learning communities in clusters. This meant building on the characteristics of residences that make them successful, namely that the residence communities make the university 'smaller'; time and space overlap in residences; residences are the most diverse living places; social dynamics in residences support the academic mission; living and learning are connected and academic and wellness peer-coaching are easily organized.

This approach was underpinned by the research of Terenzini and Pascarella (1994, p. 32), who stated that “we have long known that students living on-campus enjoy larger and more varied benefits of college attendance than do commuting students”, and “how can the most educationally potent characteristics of the residential experience (e.g., frequent academic and social interaction among students, contact with faculty members, more opportunities for academic and social involvement with the institution) be made more readily available to students who commute?”. The expected²⁰ outcomes of the initiative should be students with the self-confidence to ask, risk and question; students with high levels of involvement, participation and cooperation; students who experience the university as friendly and hospitable, who have a stronger sense of belonging (Bloomquist, 2014), who are open to more engagement with staff and peers and whose academic success and wellness (Du Plessis, 2016) scores have improved (Botha et al., 2011; Dunn & Van Zyl, 2012).

A day in the life of a residence student includes time to get familiar with others and time and place for mentoring conversations. The residence is culturally integrated, and in addition to social interactions, regular academic interactions occur in it. Drawing on the characteristics that make residences successful, a diagrammatic representation of the day in the life of a residence student is seen in Figure 5.5.

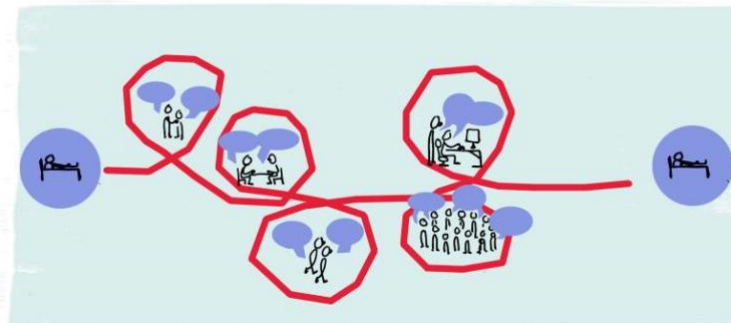


Figure 5.5: Day in the life of a residence student
Concept artist: Dr Nico Simpson (www.claripics.com)

In a day of a commuter student the structures for conversation and support are missing, because they traditionally organize social experiences in the out-of-class environment

²⁰ Subject to ongoing research.

and no academic experiences, thus having little contact with peers and lecturers or faculty after class, as illustrated in Figure 5.6 below.

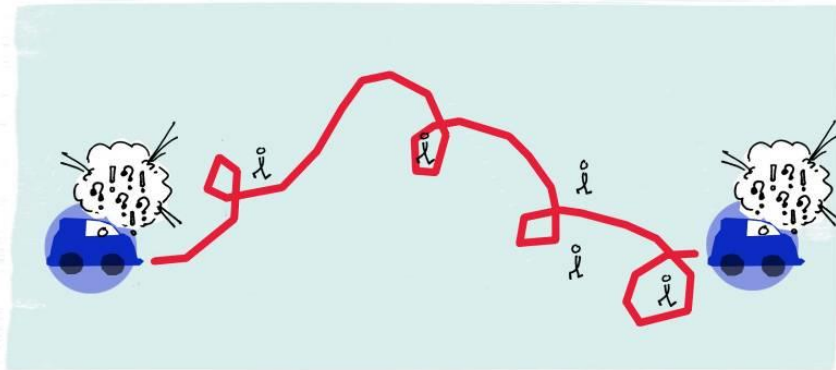


Figure 5.6: Day in the life of a commuter student

Concept artist: Dr Nico Simpson (www.claripics.com)

However, a day in the life of a commuter student in the *cluster* creates the opportunity for conversations and for academic, social and cultural support, as is illustrated in Figure 5.7.

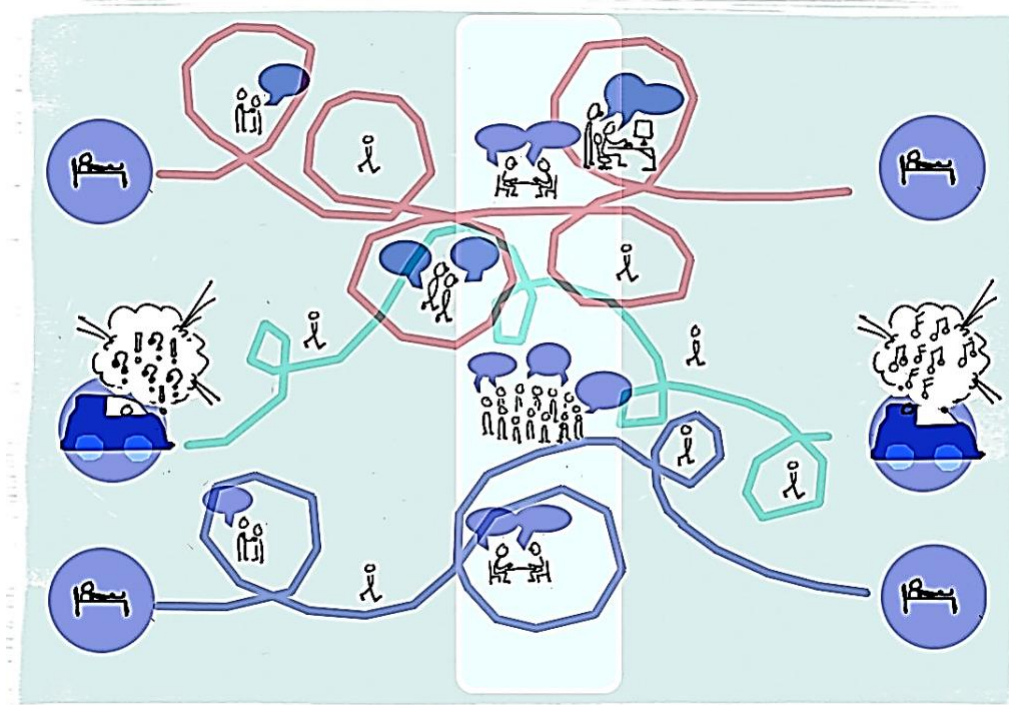


Figure 5.7: A day in the life of a commuter student in the cluster

Concept artist: Dr Nico Simpson (www.claripics.com)

The change in the organizational structure of the residences further aims to effect long-term change to the student culture, to create spaces for more frequent quality academic interaction and to be an extension of the academic experience in the faculties. The development of integrated learning communities for residential and commuter students was made possible by a number of factors. According to Kloppers (2008), value-driven management has established a student leadership culture of cooperation and support where there was room for new initiatives in learning communities. The value-driven leadership approach in these communities provides a way for students and student leadership to continuously evaluate the practices of their learning communities, to improve these and to align these practices to the adopted values. In this process values are elevated to the highest authority and replace authority based upon a power hierarchy.

Such a leadership style is, however, conversation-intensive. This intervention brought about vibrant conversation on the implementation of new practices such as the placement of students in residences, clusters, welcoming first-year students, the use of different languages, the students' role in community interaction programs and the way current students engage with alumni. The same value-driven leadership approach extends to the creation of cluster-villages (similar to the colleges in the collegiate system) and hubs where peer conversations around shared values and their influence on decision-making contribute positively to the development of leadership skills (Kloppers in, Botha & Kloppers, 2014, pp. 26-27). A holistic learning culture is created in the living spaces (hubs) of the clusters, as illustrated in Figure 5.8 below.

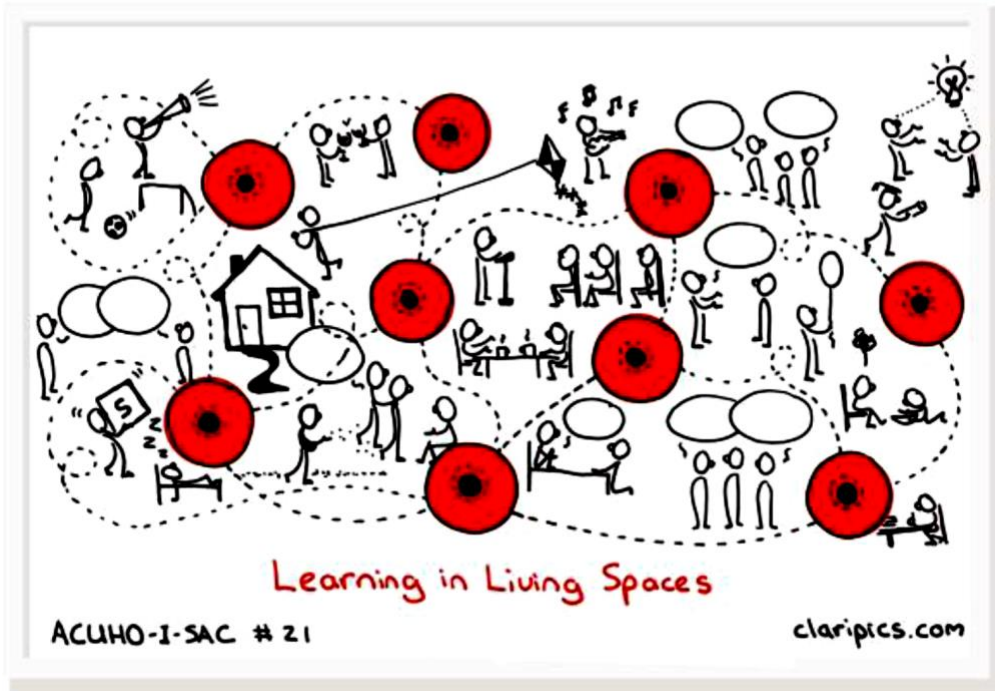


Figure 5.8: Learning in living spaces of the clusters

Source: (ACUHO-I SAC, 2010, p. 5)

Concept artist: Dr Nico Simpson (www.claripics.com)

Dunn (2013, p. 33) explained that “learning communities provide a fertile ground for student development through engagement with other influential agents of socialization, such as peers and faculty members”. Another *learning community* initiative at SU is the Listen, Live and Learn (LLL) program, which is a senior student housing model that aims at providing an experiential opportunity for students to make contact with ‘the other’. It also aims to enhance interaction among a diversity of students and to enable social integration in a learning community (Dunn, 2013). The initiative strives to minimise stereotyping and discrimination among students and is based on the assumption that, if people of different genders, races, ethnicities or religions make contact or interact with one another on an equal level, then less stereotyping by them will occur in the learning communities (Dunn-Coetzee & Fourie-Malherbe, 2017; Smorenburg & Dunn, 2014, p. 56).

The SU *Institutional feedback report of the Quality Enhancement Project* (CHE, 2016b) commended SU on the interventions of the FYA, the LLL communities and the ResEd cluster initiative that are effectively utilised to contribute to a holistic university ecosystem (p. 11). The CHE further stated that the student communities foster a sense

of shared responsibility for student success, support and development for all students by including commuter students and providing them with all the support services that are available to residential students. Cluster-specific tutorial groups have also been developed by some faculties, which is a further positive development in enhancing student support and success. SU has further purposefully re-designed physical spaces with flexible, adaptable and universal design in mind, according to pedagogical needs (CHE, 2016b), in order to enhance student success, involvement and engagement.

5.5 CONCLUSION

Understanding and improving the learning experiences of students are of critical importance in the 21st century. In this chapter the focus was on student engagement and learning communities, as research indicates that three key predictors of student success include academic preparation, motivation and student engagement. Theories of engagement and how they could inform initiatives to enhance student success were highlighted, with a particular focus on the I-E-O model of Astin.

The chapter also drew attention to the challenges of commuter students to be engaged with their learning experience, and the role that learning communities could play in this regard. In the SU context, the CSC has played a pivotal role in the development of the ResEd initiative and clusters. Regarding this initiative, the important role that integrated learning communities play in giving commuter students a similar educational experience to that of residence students, was highlighted. The graduate attributes that the residential and commuter students gain from their experience, leave them better equipped for the work-place and for their future roles in society.

Chapter 6 will explain the methods used to deduct information from the research.

Chapter 6

RESEARCH METHODOLOGY

6.1 INTRODUCTION

The literature review in Chapter 2 outlined international perspectives on student access, success and engagement with specific reference to commuter students and their particular needs. Chapter 3 (national) and Chapter 4 (institutional) dealt with the same themes in the context of local higher education pre-1994 and post-1994. This was followed by an exploration of the importance of learning communities internationally, nationally, and at SU, supported by some theories of engagement in Chapter 5. Chapter 6 deals with the research methodology of the study.

Mertens (2012, p. 2) posits that research follows an orderly process of capturing information, whereafter it is analysed, explicated and presented in a form so that people better understand the data collected or the situation that was investigated. Clifford Woody (cited by Kothari, 2011, p. 1) elaborates on this by explaining that research comprises defining and redefining problems; formulating suggested solutions; collecting, organising and evaluating data; making deductions and reaching conclusions; and lastly, carefully testing the conclusions to determine whether they fit the research question. Research also adds value to the academic or intellectual world and may have a vital impact on change (O'Leary, 2013). Researchers therefore ask relevant questions to fill the knowledge gaps that exist through methodical investigations (Leedy & Ormrod, 2005).

There are various approaches and methods to investigate a problem or a research question (Dunn, 2013, p. 71). The primary purpose of this chapter is to give an overview of the approach and methods that were used to conduct this study in order to achieve the aim and objectives that were explained in Chapter 1. This chapter further discusses validity, reliability and ethical considerations that are applicable to this study.

6.2 RESEARCH AIM, OBJECTIVES AND QUESTIONS

The following statement of Terenzini and Pascarella (1994, p. 32) highlights the need for this study:

We have long known that students living on-campus enjoy larger and more varied benefits of college attendance than do commuting students. A college might usefully ask, how can the most educationally potent characteristics of the residential experience be made more readily available to students who commute?

Therefore the **aim** or purpose of the study was to find answers to Pascarella and Terenzini's question in the context of SU by determining the effect that the amaMaties hub and cluster have on commuter students. This aim was broken down into more specific **objectives** that included the following: to determine whether the amaMaties hub and cluster create a social learning community for commuter students, whether this initiative addresses the needs of commuter students and whether it has a positive effect on academic performance, the development of social skills, engagement on campus and a sense of belonging. The study also aimed to determine whether the spaces and facilities that the cluster and hub are providing, create learning communities among students in the cluster.

The amaMaties cluster consists of five residences (three for females, one for males and one co-ed), and two commuter student wards (one for females and one for males), as diagrammatically presented in Figure 6.1.

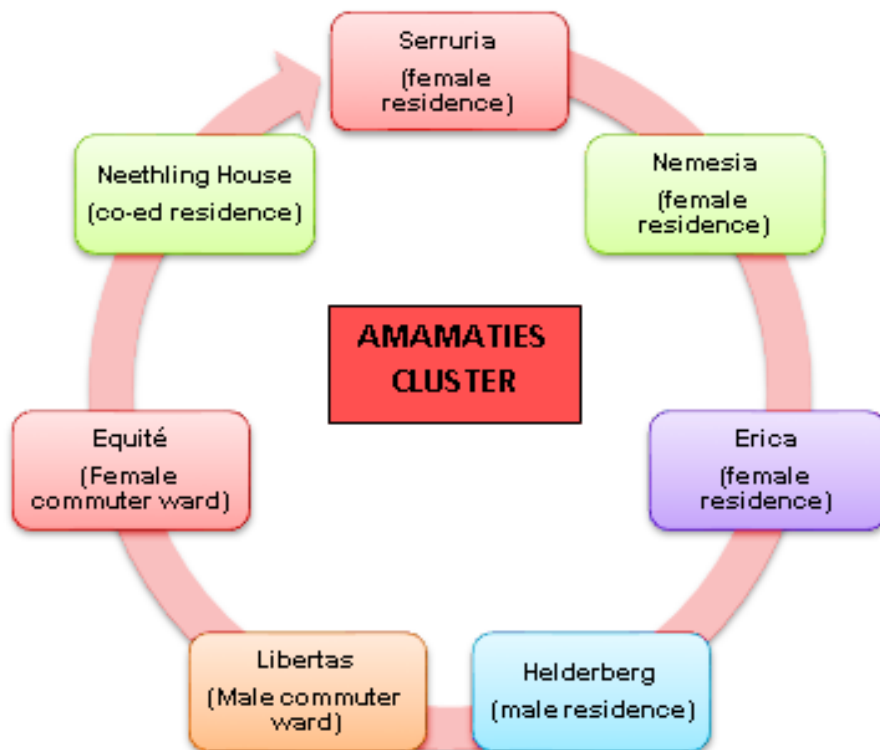


Figure 6.1: Diagrammatic presentation of the amaMaties cluster

Source: Author

The three female residences are in close geographical proximity and the hub was developed in the same area. Grouping the five residences and two commuter student wards together into the cluster – to which all the students in the residences and commuter student wards concerned belong – makes students part of a smaller organisational unit in the out-of-class environment (compared to SU as an organisation), and in this sense makes the SU campus ‘smaller’ to also promote student engagement. The cluster is the organizational unit that is larger than a residence or PSO ward and includes approximately 2 500 to 3 500 residential and PSO students, which includes all genders and races. This grouping brings more diversity into each cluster and ensures that the diverse students learn from one another. Assembling residences and commuter student wards into clusters, also aims to integrate residential and commuter students into learning communities, as explained in Chapter 1 and in Chapter 5. It further aims to integrate the academic (class) and social (out-of-class) environments of residential and commuter students (see Figure 6.2), making clusters the organizing principle for academic and social affairs of students at SU (Kloppers, 2006a).

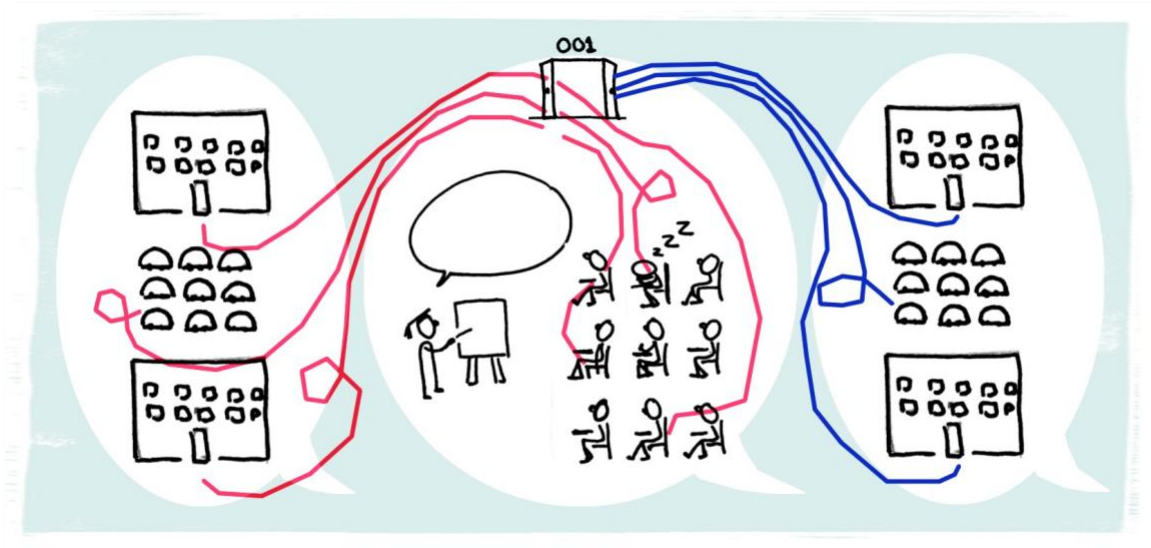


Figure 6.2: Integrating academic and social environments of residential and commuter students

Concept artist: Dr Nico Simpson (www.claripics.com)

Against the above background, and as explained in Chapter 1, the research question (see research aim above) that this study attempted to answer was: *to what extent does the amaMaties hub and cluster fulfil its intended purpose?* The objectives that were formulated in order to answer this question included:

- *to determine to what extent the facilities were being utilized by commuter and residential students;*
- *to determine to what extent the hub fulfilled the basic needs of the commuter students;*
- *to determine to what extent the commuter students participated in learning communities (study, tutor and mentor groups) in the hub;*
- *to determine to what extent social interaction among commuter and residential students was promoted;*
- *to determine to what extent the academic experience and success of commuter students were enhanced.*

The research paradigm, design and the methods that were followed to address the research question and objectives will be discussed accordingly.

6.3 RESEARCH PARADIGM, DESIGN AND METHODS

6.3.1 Research paradigm

In a research context a paradigm “is a system of ideas or theoretical principles that determine, maintain and reinforce our way of thinking about an issue or a topic” (Guba and Lincoln, cited by Plowright, 2011, p. 177). Mertens (2012, p. 255) argues that the research paradigm refers to a particular philosophy that represents the researcher’s notion of the real world and the methods followed to gain knowledge from it, whereas Wahyuni (2012, p. 69) summarizes it as the acceptance and acknowledgment of how the world is experienced in reality, because it guides and addresses the behaviour of the researcher. Creswell (2003, p. 3; 2013) posits that when researchers start their research, they have assumptions about what and how they will learn, and this paradigm (Guba & Lincoln, 1994, p. 107) “represents a worldview that defines...the nature of the ‘world’, the individual’s place in it, and the range of possible relationships to that world and its parts”. Shannon-Baker (2016, p. 319) argues that there is not really consistency among researchers about how paradigms are defined, but they do agree that the term indicates a non-static, changing and vibrant foundation according to which research happens.

Mertens (2014) gives a comprehensive explanation of the four major paradigms in the social sciences: the postpositivist, constructivist, transformative and pragmatic paradigms, as seen in Table 6.1.

Table 6.1: Basic beliefs associated with the major social science Paradigms

Basic Beliefs	Postpositivism	Constructivism	Transformative	Pragmatic
Axiology (nature of ethical behaviour)	Respect privacy; Informed consent; Minimize harm (beneficence); justice/equal opportunity	Balanced representation of views, raise participants' awareness; community rapport	Respect for cultural norms; beneficence is defined in terms of the promotion of human rights and increase in social justice; reciprocity	Gain knowledge in pursuit of desired ends as influenced by the researcher's values
Epistemology (nature of knowledge; relation between knower and would-be known)	Objectivity is important; the researcher manipulates and observes a dispassionate, objective manner	Interactive link between researcher and participants; values are made explicit; create findings	Interactive link between researcher and participants; knowledge is socially and historically situated; need to address issues of power and trust	Relationships in research are determined by what the researcher deems as appropriate to that particular study
Ontology (nature of reality)	One reality; knowable within a specified level of probability	Multiple, socially constructed realities	Rejects cultural relativism; recognizes that various versions of reality are based on social positioning; conscious recognition of consequences of privileging versions of reality	Asserts that there is a single reality and that all individuals have their own unique interpretation of reality
Methodology (approach to systematic inquiry)	Quantitative (primarily); interventionist; decontextualized	Qualitative (primarily); hermeneutical; dialectical; contextual factors are described	Qualitative (dialogic), but quantitative and mixed methods can be used, contextual and historical factors are described, especially as they relate to oppression	Match methods to specific questions and purposes of research; mixed methods can be used as researcher works back and forth between various approaches

Source: Mertens (2014, p. 11)

The *positivist paradigm* is mostly used to test theories or hypotheses, because the researcher wants to apply systematic inquiry in order to establish the truth and to ascertain what the behavioural patterns of people are (Mertens, 2014; Taylor & Medina, 2013, pp. 2-3). The focus of this paradigm is not attached to the researcher, therefore direct observations are examined (Krauss, 2005). Statistics are calculated from data that was captured and processed through observations. *Validity* and *reliability* are used as standards to measure the quality of the research (Taylor & Medina, 2013).

Research done in the *postpositivist paradigm* follows similar procedures to the positivist paradigm, but there is more reciprocal action between the researcher and the participants, and procedures also depend on the diverse group of respondents involved. Creswell (2013, p. 6) calls this the method of science or quantitative research, reflecting “a need to examine causes that influence outcomes” and including “assumptions imposed [by] structural laws and theories” (Creswell, 2003, p. 9; 2013).

The standards to measure the quality of this kind of research include *objectivity*, *validity* and *reliability* (Taylor & Medina, 2013).

The researcher working in the *constructivist paradigm* focuses on the “specific contexts in which people live and work in order to understand the historical and cultural settings of the participants”, and the interpretation of the research is mostly grounded in his or her “own background” (Creswell, 2003, p. 8; 2013). Open-ended questions are asked so that personal views can be conveyed from participants’ own historical and social perspectives.

The *transformative paradigm* allows for frequent interaction between the researcher and participants and demands a theoretical framework that accommodates social justice (Mertens, 2014; Shannon-Baker, 2016).

This study has been conducted from a *pragmatic paradigm* that suggests searching for feasible, workable solutions for complex human problems, in particular in natural settings. The focus of this study was a conceptually coherent program (amaMaties cluster), designed to address a significant social problem (needs of commuter students) within a naturalistic, real-world setting (at SU), in a manner that is feasible, effective and efficient (what this study aimed to achieve). The *pragmatic paradigm* further emphasizes the predominance of problem solution (needs of the commuter students) and practical program building in the applied research tradition (Fishman, 1991, pp. 356-578). Quantification (questionnaire) can be used to develop performance indicators of a system’s functioning. Research done in the pragmatic paradigm is therefore “outcome-oriented” and wants to determine the “meaning of things” (Shannon-Baker, 2016, p. 322). She continues that a “pragmatic researcher is able to maintain both subjectivity in their own reflections on research and objectivity in data collection and analysis” (p. 322). Qualitative and quantitative data were gathered simultaneously in this study.

To address the research problem, *program evaluation* was chosen as the research design. This study was the first investigation into the effectiveness of the cluster initiative and physical space (hub) created for the integration of residential and commuter students in SA and at SU, and therefore it focused on getting the initiative or program to ‘work’ within a particular community (amaMaties cluster).

6.3.2 Research design: program evaluation

Posavac (2015, p. 1) defined program evaluation as “a methodology to learn the depth and extent of need for a human service and whether the service is likely to be used, whether the service is sufficiently intensive to meet the unmet needs identified, and the degree to which the service is offered as planned and actually does help people in need”. Program evaluation is therefore appropriate to determine the “value and worth of something” (p. 3). Lieberman et al. (2014, pp. 161-162) argue that the evaluation of programs has many goals that include to “measure achievement of identified outcomes and potential unintended outcomes, improve a program’s ability to meet client needs, improve program quality, demonstrate a program’s effectiveness and value to funders, determine program deficiencies, and inform the ‘field’ about effective programs”. Evaluation research can be distinguished into two major categories: *summative* and *formative* evaluations. *Summative evaluation* refers to the assessment of the outcome(s) of a program and whether the goals were reached by a completed program. *Formative evaluation* refers to the assessment of the process(es) of a program and involves judging the means by which a program is operating (Dane, 2011, p. 299). *Program evaluation* therefore contributes to making a general decision about the effectiveness of the program (summative evaluation) or collecting data that can be used to develop or improve the initiative (formative evaluation).

This research took the form of a *formative evaluative* study, as the purpose was to improve the initiative and address any weaknesses and gaps that were identified (Flagg, 2013). Evaluation of new initiatives is an imperative for public higher education institutions in order to warrant utilising scarce funds to improve student experience. The findings of this study must inform future decision-making to improve the cluster and hub initiative at SU. The *logic model* created for the amaMaties cluster served as the point of departure for the evaluation process and will be discussed accordingly.

6.3.2.1 The Logic Model

The *Logic Model*, according to McLaughlin and Jordan (1999, p. 66), gives a “plausible and sensible model of how the program will work under certain conditions to solve identified problems, thus forming the basis for a convincing story of the program’s

expected performance”. The same authors (McLaughlin & Jordan, 1999) elaborate on the following benefits when using a logic model to evaluate an initiative or a program:

- it builds a common understanding of the program;
- it clarifies expectations for resources;
- it is helpful for program design or improvement;
- it communicates the place of a program in the organization or institute;
- it provides a balanced set of key performance measurement points and evaluation issues.

Logic Models can be presented diagrammatically in a number of different ways (Funnell & Rogers, 2011; Taylor-Powell & Henert, 2008), but in this study the Logic Model of Patton (1997) was used.

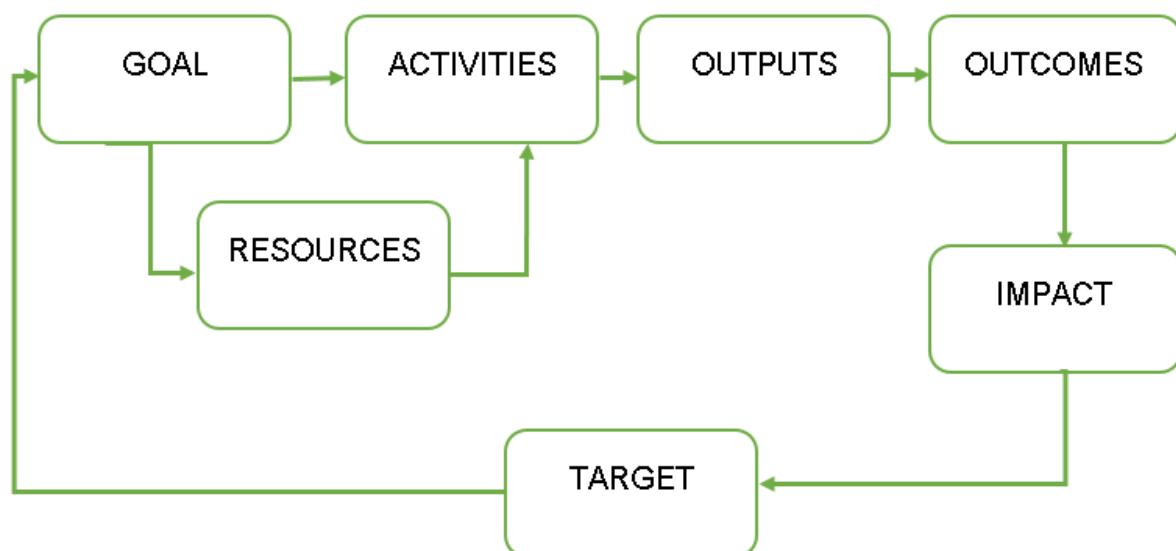


Figure 6.3: Steps of the Logic Model

Source: (Patton, 1997)

This model presents a visual way to understand the relationship between the *goals* that we wanted to achieve in the cluster, the *activities* that staff and students were engaged in, the *resources* that came from the rector’s management team, commercial services and the staff of facilities management at SU; also the relationship between the *outputs* that were found in the physical spaces that were made available to the amaMaties cluster students, the desired *outcomes* of creating a learning community where residential and commuter students participate, and eventually the *impact* that it

had on student academic and social development (Taylor-Powell & Henert, 2008, p. 4; Wholey et al., 2010, p. 144). The Logic Model further contributed to improving our understanding and conceptualisation of the hub and cluster initiative, and facilitated shared understandings by all stakeholders at SU.

The Logic Model for the amaMaties hub and cluster that was adapted from Patton (1997) is presented in Table 6.2.

Table 6.2: The Logic Model for the amaMaties hub and cluster

GOALS	<ul style="list-style-type: none"> • To support the SU vision statement regarding a campus culture that welcomes a greater diversity of people and ideas • To promote an academic learning culture, especially among PSO students who commute and in the SU residence environment • To promote the integration of the social and academic environments on campus • To create learning communities within the cluster • To enhance the out-of-class experience of the PSO and residence students • To support the academic mission and academic success of the university • To support student growth towards meeting the profile of an SU graduate
OUTPUTS	<ul style="list-style-type: none"> • Tinie Louw dining hall – PSO and residence students can book meals • Study/social space in the hub – open 24/7 • Deli – cash or student card payment – open until 22:00 • Two backpacker rooms with 12 beds – bedding inclusive • 20 House Committee (HC) rooms for PSO student leaders • Bathrooms for males and females
OUTCOMES	<ul style="list-style-type: none"> • To create spaces which would address the basic needs of commuter students (in terms of safety, meals, rest and relaxation) • To create opportunities within the cluster for PSO and residence students to participate in learning communities (i.e. attend mentor and/or tutor sessions and form study groups) • To make campus life more welcoming by creating spaces and opportunities where diverse PSOs and residence students can socialize in the same community • To enhance the academic experience and academic success especially that of commuter students
IMPACT	<ul style="list-style-type: none"> • Student success • Development of graduate attributes • Serving the student population in a holistic-systemic way
ACTIVITIES	<ul style="list-style-type: none"> • Renovation of the kitchen at the Tinie Louw Dining Hall • Constructing the hub on top of the already existing kitchen of the Tinie Louw Dining Hall • Constructing the deli, backpacker rooms, bathrooms and HC rooms • Residential head forums and training • Student leaders' training • Mentor training • Critical engagement conversations • House meetings of commuter wards and residences • Government groups' training: Year beyond • OWLAG: training • Academic tutor group training / conversations • Faculties: training and awareness talks • Societies meetings • House committee meetings
RESOURCES	<ul style="list-style-type: none"> • Support of the rector's management team • Financial support from Commercial Services • Building contractors and project managers from Facilities Management

Source: (adapted from Patton, 1997)

As mentioned above, the Logic Model contributes to creating shared understanding of the initiative (Kloppers, 2006b), which led to improved planning and management for future hubs. For the purposes of this study, the focus was on the *outcomes* of the Logic Model, because the study wanted to address the needs of commuter students and to evaluate if the physical spaces that were provided created a space where a diverse group of students from different faculties, genders, races and coming from PSOs and residences can work together in an out-of-class environment. The study further wanted to evaluate whether mentor sessions occurred and whether study groups were formed in the integrated learning community. It also wanted to ascertain to what extent commuter students' academic experience and success were enhanced with a view to narrowing the gap between residential students' and commuter students' academic performance.

The impact of change initiatives or programs can only be ascertained longitudinally and is difficult to measure in a complex social environment such as the university, but the interpretation of the research findings will keep impact measures in mind. The procedure to collect the data from participants will be discussed next.

6.3.3 Research methods

The process of research includes the collection, analysis and interpretation of the data collected and further gives an understanding about the topic or situation studied, whereafter the outcomes are revealed to a bigger research community (Leedy & Ormrod, 2005, p. 2). The methods that are chosen for research are characterised by degree of structure and level of mediation Plowright (2011, pp. 16-17). The level of mediation refers to how distant the researcher is from the issues that are studied, whereas the degree of structure relates to the way in which data is generated, collected and analysed. The method(s) of data collection must be appropriate to the level of mediation of the study (Plowright, 2011, p. 17). Commuter students in the Libertas (male) and Equité (female) commuter student wards at SU for the duration of 2014 and 2015, alumni of these wards as well as the residential students of Serruria, Nemesia, Erica, Neethling House and Helderberg Residences for the duration of 2014 and 2015 were included in the study.

6.3.3.1 Data collection methods

The data collection for this study was informed by data of the amaMaties cluster from the APS²¹ of the SU Division of Institutional Research and Planning (DIRP) to compare the academic performance of students in commuter wards with those of residential students. This data was compiled on Formstack by the DIRP and was available online to the researcher, who is a residence head in one of the residences in the amaMaties cluster and hence had access to the information. This data was used to determine whether the academic performance of students within the amaMaties cluster had improved, and how the residential students' academic performance compared to that of the commuter students in the cluster.

This was followed by an electronic survey using a self-generated *questionnaire* to all the commuter students (Libertas and Equité) and residential students (Serruria, Nemesia, Erica, Neethling House and Helderberg) in the amaMaties cluster. The second data collection method (questionnaire) was informed by the background knowledge that the researcher had of the ResEd and cluster initiative when the study commenced (Bryman, 2015, p. 4). Items generating qualitative and quantitative data were used in the questionnaire to collect the data (Creswell, 2012; Sandelowski, 2000) in order to evaluate to what extent the expected outcomes were achieved.

Hofstee (2006) defines a *questionnaire* to be a manner in which information is drawn directly from the person or people (sample) who are presumed to have the required information that is needed for the investigation, and is one of the most widely used manners in which data is collected (Rowley, 2014) in the social sciences. All the respondents were asked the same questions and were offered the same options in answering them. Filter and follow-up questions, multiple-choice and semantic differential scale questions were asked. The *questionnaire* also included open-ended questions (generating qualitative data) to give respondents the opportunity to express themselves in their own words and to give them a sense of control (Hofstee, 2006, p. 132). Closed questions were asked with a set of responses from which the respondent had to choose one or sometimes more than one response. Data from the closed questions (generating quantitative data) was easier to analyse than data obtained from

²¹ APS refers to the Academic Performance System of SU.

the open-ended questions (Maree, 2007, p. 161; 2013), because the data was systematic, standardized and easily presented, whereas responses to open-ended questions were much longer, more detailed and variable in content, as people responded in a way that represented their viewpoints accurately and thoroughly – “tell it as they see it” (Patton, 1980, p. 28).

The aim of the *questionnaire* therefore was to assess if the amaMaties hub and cluster facilities address the needs of the commuter students. The research also wanted to explore the needs of students that travel to and from the university (driving commuters), of walking commuters who live in private accommodation in Stellenbosch and of residential students living in the cluster residences. All the students were informed about the questionnaire during seven house meetings²² in August 2015, where a brief explanation was given of why the questionnaire and their feedback were important and how the cluster community in general would benefit from the study. Thereafter, in October 2015, November 2015 and again in February 2016, the students were invited to complete the online questionnaire. Reminding students of the survey in February 2016 was necessary, because the students had a summer break from the end of November 2015 to the end of January 2016 and seemed to be reluctant to complete it over the holiday. Each time the questionnaire was sent to the students, it was accompanied by an introductory letter that explained the purpose of the study, emphasizing its importance and significance (Gay, Mills, & Airasian, 2009, p. 181). In order to check that the questionnaire was easy to access, correct and complete, it was piloted before it was sent to the cluster population.

The data was captured electronically on Formstack and compiled by a staff member of the DIRP, and then given to the researcher to interpret, analyse and draw conclusions. The process of data analysis will be discussed next.

6.3.3.2 Data analysis methods

An online form-building software service, provided by Formstack (www.formstack.com), was used to compile and administer the amaMaties

²² A house meeting refers to a compulsory meeting, which happens once per term with all the residents of the house. The meeting is led by the house committee members and the residential or commuter student coordinator of the house.

questionnaire. Formstack adheres to the strictest international security standards. All the completed questionnaires were downloaded from Formstack after the deadline. With the help of the DIRP, a set of computer programs was created to process the data and to set up a website with the results. All responses were analysed by means of these programs, and the tables on the website were used to analyse and interpret the qualitative and quantitative data and to make graphical presentations that illustrate the most important findings (in MS Excel).

Bar graphs that present some of the data drawn from the Excel sheets, relate back to Playfair (1801:15, as cited in Spence, 2005), who commonly used “timeline charts” to present data, e.g. temperature, “areas, populations, and revenues of European states” (Spence, 2005, p. 353). They are very popular in the scientific presentation of data, because they are accurate, simple, clear and easily understood by readers (Spence, 2005). These graphic displays of the feedback given by the amaMaties cluster respondents are visual and may motivate the reader to analyse and interpret the data more easily than when it would be in text form. The detailed analysis of the data and its results are explained in Chapter 7.

6.4 VALIDATING THE STUDY

In order to strengthen the reliability and validity of the quantitative data gathering and analysis, the researcher tried to ensure that measurement error was kept to a minimum (Crano, Brewer, & Lac, 2014; Leedy & Ormrod, 2005; Paulsen & Smart, 2013).

6.4.1 Validity

Babbie and Mouton (2002, p. 122) explained that “the term validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration”. Denzin and Lincoln (2000, p. 140) emphasized that data needs to be internally and externally valid. According to Bryman and Cramer (1999, p. 9) “an *internally* valid study refers to one which provides firm evidence of cause and effect” and therefore no manipulation of the independent variable occurred when the effects were observed (Maree, 2013), whereas *external* validity refers more to the applicability of the research findings and results to the wider environment (Maree, 2007, p. 39), and whether the same results can be expected from other settings.

In terms of research instruments, four types of validity can be distinguished (Babbie & Mouton, 2002, pp. 122-123; Babbie, 2013; Maree, 2007, pp. 216-217; 2013), as seen in Table 6.3.

Table 6.3: Types of validity

i) Content validity	Associated with consideration of the proximity of the instrument to the construct in question.
ii) Face validity (Maree, 2007, p. 217)	Refers to the extent to which an instrument “looks” valid. This type of validity can unfortunately not be quantified or tested, but experts in the field can recognise a high degree of face validity.
iii) Criterion-related validity	Concerned with comparison of the instrument and findings with an established standard to determine the correlation between measured performance and actual performance.
iv) Construct validity	Depends on sampling and construction of the instrument and refers to the degree to which the entirety of the phenomenon under investigation is addressed.

Content validity (Haynes, Richard, & Kubany, 1995, pp. 238-246) is the extent to which the questions within the amaMaties questionnaire were relevant and representative of the construct that it measured. This was the initial objective in the construction of the questionnaire. *Face validity* is the least scientific since it is a subjective, superficial assessment of whether the questionnaire appeared to be a valid measure of the construct. *Criterion-related validity* reflects the use of a well-established questionnaire to create a new questionnaire to measure the construct that the researcher is interested in. It has to be theoretically related and means that the questionnaire could be validated by an external criterion.

Construct validity refers to the extent to which the questionnaire measured the entire phenomenon, i.e. what effect the amaMaties hub and the cluster had on commuter students, if their needs were addressed and if this facility contributed to the development of healthy communities. It incorporated content, face and criterion validity (Bryman, 2015; Dane, 2011, pp. 140-143; Logan, Padgett, Thyer & Royse, 2006, pp. 302-303; Long & Johnson, 2000, p. 32). The validity of the instrument first needed to be determined before the *reliability* could be established.

6.4.2 Reliability

Reliability is described as “the consistency or constancy of a measuring instrument” (LoBiondo-Wood & Haber, 1998, p. 558, as cited by Long & Johnson, 2000, p. 31), or “the degree of consistency or dependability with which an instrument measures the attribute it is designed to measure” (Polit & Hungler, 1995, p. 651, as cited by Long & Johnson, 2000, p. 31). Babbie and Mouton (2002, p. 119) argue that the questionnaire will be reliable only when it is applied repeatedly and gives the same result every time. In this study the questionnaire was applied once only, so no evidence of reliability can be presented, but it seems probable that the study can be replicated and the instrument applied in other clusters at SU and at other higher education institutions in South Africa, and therefore indicates the consistency or repeatability of it as measuring instrument (Bryman, 2015, p. 156; Dane, 2011, p. 158; John & Benet-Martínez, 2012, p. 342; Maree, 2013) and the scores it produced (Gay et al., 2009, p. 158). Bickman and Rog (2008, p. 23) concluded that data is not useful if it is not accurate, valid and reliable.

The validity and reliability of this study were enhanced by the data handling process, because the data was electronically and directly captured on the Formstack database, in a means of communication that was familiar to the respondents, and it also assured their anonymity when giving their viewpoints in the open-ended questions.

6.5 POPULATION AND SAMPLING

A *sample survey* refers to “a study involving a subset (or sample) of individuals selected from a larger population” (Levy & Lemeshow, 2013, p. 3). The purpose of sampling is “to draw a representative sample from the population, so that the results of studying the sample can be generalized back to the population” (Marshall, 2001, p. 522), and the conclusions that are made are built on assumptions that the existing trends will continue or remain applicable.

The researcher did not do random sampling to arrive at a specific sample size, but used a sample population from the total student population at SU, in this case all the students in the amaMaties cluster. The sample is representative of the total population, because it consists of students in male and female residences, a co-ed residence (male and female mixed) as well as male and female commuter student wards. In this

case non-probability sampling was used in a purposive way, because the researcher had a specific purpose in mind (Maree, 2007, p. 178; 2013) and therefore the respondents had to be part of the amaMaties cluster. The sample was therefore 'picked' for the research, because the researcher was familiar with the population and the sample, and deliberately selected the amaMaties cluster because these students were likely to produce the most valuable data that was needed for this specific study (Rowley, 2014, p. 319).

The selection of an appropriate method, in this study a self-generated questionnaire, to evaluate the amaMaties hub and to determine whether the needs of commuter students were addressed, met the needs of the researcher.

6.6 ETHICAL CONSIDERATIONS

"Science is 'primitive and childlike', yet it is 'precious'", according to Einstein (O'Leary, 2013), because it helps us to "learn, grow, change and shift by making a difference". A researcher therefore needs to be caring about the wellness and rights of the participants, and to proceed in an ethical way when capturing information (p. 45). In a research context *ethics* study the good, the right, or the high morals of research standards, which particularly focus on the procedure of planning, conducting and communicating, and on probable follow-up research, according to Punch (2013, p. 36). There is a need for *ethics*, because participants are either physically or emotionally *vulnerable* or at *risk* (Sieber & Tolich, 2013). They further distinguish between *risk* which "refers to situations in which there is some significant probability that there will be a harmful outcome" (p. 11), and *vulnerability* which "refers to persons who are not in a position to evaluate risk or to refuse to endure risk" (p. 11) and might experience it purely as inconvenient.

Ethics further comprises of how researchers treat the participants (Ritchie et al., 2013). The concept has not changed much over the years, but it has now become a central focus point in the discussion of research methodology (Bryman, 2015). Ritchie et al. (2013, p. 78) posit what ethical research involves: that the research must be worthwhile and that there are no unreasonable demands on the participants; that the participants must give their informed consent; that the participants can participate without any pressure; that no harm may be done to any of the participants, and lastly that their

confidentiality and anonymity be respected. Lieberman et al. (2014, p. 344) furthermore argues that clear and honest communication with participants about the benefits and consequences, the method and approach and the procedures, is pivotal in showing the necessary respect to the respondents. Since “human respondents” (Dunn, 2013, p. 85) were involved in the study, the Departmental Ethics Screening Committee (DESC) and the Research Ethics Committee (REC) of SU reviewed the proposal for the study. Ethical clearance was given, and the study could commence (refer to Addendum C). The self-generated questionnaire (Rowley, 2014) was accompanied by an informed consent form (Crano et al., 2014) that supported the voluntary participation (Ritchie et al., 2013) of each respondent and ensured *confidentiality* to respondents which refers to the “utmost degree of trust” (Palys & Lowman, 2000, p. 41). The respondents received the questionnaire via email. The SU Division of Institutional Research and Planning (DIRP) administered the questionnaire. The DIRP monitored the collection of the data and decided on follow-up mailings to the respondents in order to increase the electronic return rate. The initial mailings were followed by a rise and subsequent decline in the number of returns with the same results in the second and third rounds of email reminders. Even though the questionnaire ensured anonymity of the respondents, it had the disadvantage of not allowing interaction with or observation of the respondents, and it was also difficult to get sufficient responses to the questionnaire to enable the researcher to come to reliable conclusions (Hofstee, 2006, p. 133).

Confidentiality (Lieberman et al., 2014; Rowley, 2014, p. 315) and *anonymity* (Crano et al., 2014, p. 55) were further maintained throughout the research, as no names or identity of the respondents could be retrieved (Mills, Airasian, & Gay, 2012). The participants were not harmed in any way (i.e., physically, mentally or socially) and they participated out of their own free will (Ritchie et al., 2013, p. 78). The *confidentiality* regarding the access to evaluation results was conveyed to the participants during the individual house meetings, as explained in section 6.3.3 (a). It was also explained to them that they had the right to participate or not. They understood that participation was completely voluntary (Crano et al., 2014, p. 99) and that the data collected would be confidential and treated with the utmost respect.

The researcher is the ResEd coordinator of the amaMaties cluster, but was not in daily contact with all the students in the cluster in order to ensure that no biases could influence the responses of the respondents. In addition, all communication and data gathering was conducted via an electronic questionnaire that was sent to the students via the DIRP at SU. As the research is vital for the evaluation of the cluster and hub initiative at SU and higher education in SA, the researcher, as far as humanly possible, remained objective during the research process.

6.7 CONCLUSION

In this chapter the researcher gave a detailed overview of the research process and methodology that was used during the study. The research paradigm, design and methods of data collection, as well as the analysis thereof, were elaborated on. The Logic Model was applied to the amaMaties cluster initiative and formative evaluation used to capture data from the self-administered questionnaire. All ethical considerations were adhered to during the course of the study and were briefly discussed.

A detailed analysis of the data collected and described will follow in Chapter 7, whereafter Chapter 8 will conclude the research study.

Chapter 7

RESEARCH RESULTS AND INTERPRETATION

7.1 INTRODUCTION

Chapter 6 explained this study's methodology to evaluate how the amaMaties hub and cluster at Stellenbosch University contribute to an environment where healthy student learning communities are developed and where the needs of commuter students are met.

The opening of the amaMaties hub in 2012 was a significant milestone for SU. The purpose of the amaMaties hub is to integrate residential and commuter students' academic and social lives. It offers a space where residential and commuter students are able to interact in living and learning spaces and it is part of SU's unique ResEd program that aims to better integrate commuter and residential students' university experience. The amaMaties cluster initiative and facility was the first at SU – and to my knowledge, in SA and Africa – and an attempt to support commuter students and to integrate their academic and social experiences with those of residence students in one cluster, the amaMaties cluster (see Chapter 4 for a more detailed description of the amaMaties hub and cluster).

In this chapter the researcher analyses, interprets and evaluates the qualitative and quantitative data derived from the survey that was administered to both commuter and residential students of the amaMaties cluster, in an attempt to answer the research question and to meet the study's objectives. As discussed in Chapter 6, the open questions gave the respondents the opportunity to express their own views and produced qualitative data, whereas the closed questions produced standardized and systematic responses. The data captured was used to determine respondents' awareness of the hub, their utilization of the hub and surrounding facilities, their experience of the amaMaties cluster and their motivation for using the facilities.

7.2 RESEARCH QUESTION AND SUB-QUESTIONS

The purpose of gathering the data was to answer the main research question of this study, namely:

To what extent did the amaMaties hub and cluster fulfil its intended purpose of addressing the needs of commuter students in the cluster?

In order to answer the main research question, the following objectives for the study were formulated:

- *to determine to what extent the facilities were being utilized by commuter and residential students;*
- *to determine to what it fulfilled the basic needs of the commuter students;*
- *to determine to what extent the commuter and residential students participated in learning communities (study, tutor and mentor groups);*
- *to determine to what extent social interaction among commuter and residential students was promoted;*
- *to determine to what extent the academic experience and success of commuter students were enhanced.*

The discussion below presents and analyses the data that was gathered by means of the survey, administered to all students in the amaMaties cluster, in order to meet the above objectives and to ascertain to what extent the outcomes of the Logic Model (see Table 6.2) for the hub and the cluster were met.

7.3 DATA COLLECTION AND ANALYSIS

Even though researchers analyse qualitative and quantitative data in different ways because of differences in the nature of the data (numerical vs text), the basic principle of data analysis, as explained by Patton (1987, p. 144) is universal: “*Analysis* is the process of bringing order to the data, organizing what is there into patterns, categories, and basic descriptive units.”

Patton (1987) also makes an important distinction between the interpretation of data and the evaluation thereof: “*Interpretation* involves attaching meaning and significance

to the analysis, explaining descriptive patterns, and looking for relationships and linkages among descriptive dimensions” (p. 144), whereas “[e]valuation is the systematic collection, analysis, and interpretation of information about the activities and outcomes of actual programs in order for interested persons to make judgments about specific aspects of what the program is doing and improve the program” (p. 145). Keeping in mind the design of this research study as an evaluation study, the researcher focused in this chapter primarily on evaluating whether the needs of commuter students were addressed and to what extent the outcomes of the Logic Model were realised (Mertens, 2014).

Against this background, the position of the researcher needs to be clarified. The researcher is the ResEd coordinator (manager) for the amaMaties cluster and coordinates the cluster activities. ResEd coordinators at SU have full-time appointments and perform administrative functions for all residences and commuter wards in a ResEd cluster (as discussed under 4.2.3). The ResEd manager has an overarching coordinating function and represents the cluster in university committees, but at the same time resides as head in one of the residences in the cluster (see Figure 6.1).

As mentioned under 6.3.3 (a), a self-administered questionnaire was sent via email to both commuter and residence students in the amaMaties cluster on 23 November 2015. The researcher had planned to administer the survey earlier in the last term of the academic year, but progress was hampered by the time-consuming process of ethical clearance application. The respondents had three weeks to complete the questionnaire. A reminder email of the due date of 15 December 2015 was sent to the respondents on 4 December 2015. However, the response rate was still disappointing. The low response rate could probably be ascribed to the fact that undergraduate students were involved in year-end examinations during November and December, and many of them had left the campus after their exams at the beginning of December. Hence, the due date for participating in the survey was extended to 28 February 2016. Two reminder emails were sent to students on 15 and 23 February 2016 respectively to inform them about the extended due date. As can be seen in Figure 7.1, the response rate was still rather low.

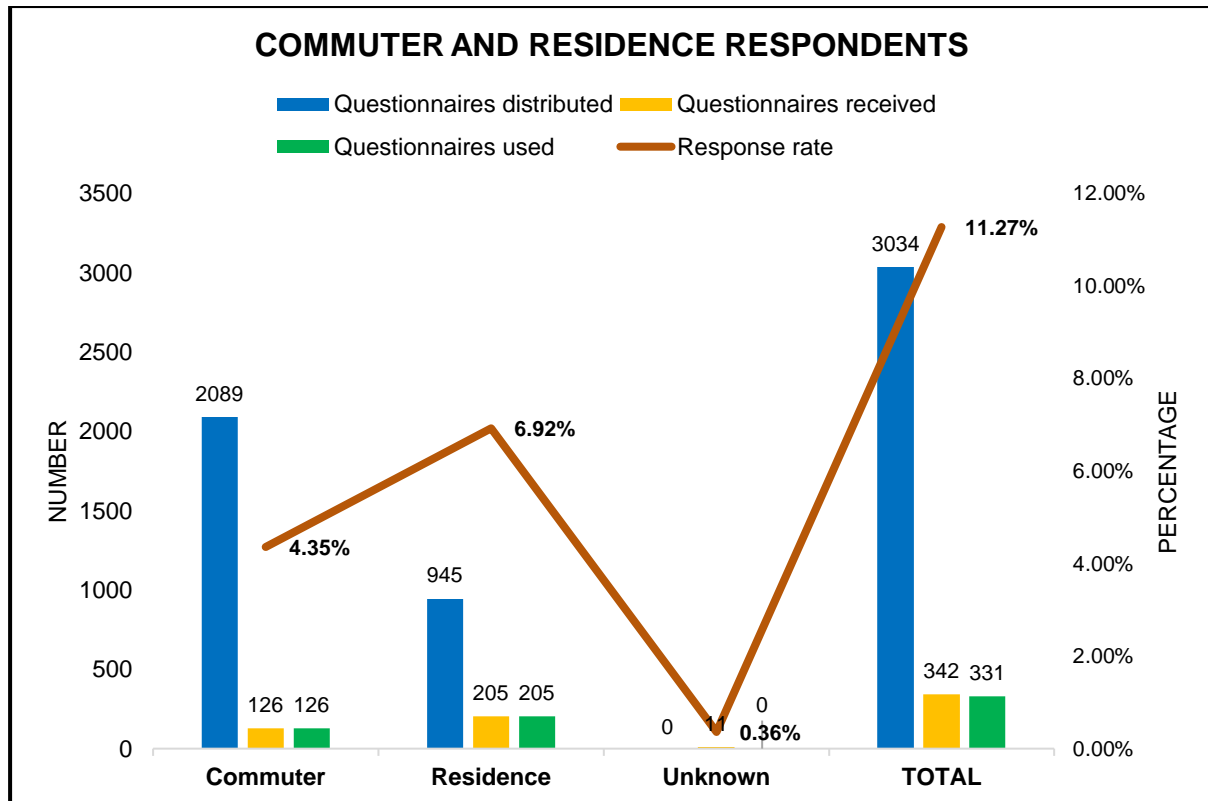


Figure 7.1: Summary of the number of questionnaires distributed and returned

From the possible 3034 participants, 342 students responded to the questionnaire. Of these, 126 were commuter students (response rate: 4.35%) and 205 were residential students (response rate: 6.92%), whereas 11 (response rate: 0.36%) students did not give consent and were marked as unknown, because no further information about them was available. The final response rate was 11.27%. Although this is a disappointingly low response rate, the actual number of valid responses (331) were sufficient for the researcher to draw preliminary conclusions.

In addition, the results of this survey were in many respects confirmed by a more recent satisfaction and needs survey among commuter students (referred to as the 2017 PSO survey), done in 2017 by SU Student Affairs, with a view to improving the university experience of non-residential students. While including a broader population than the amaMaties questionnaire, the 2017 survey still substantiated the findings of the amaMaties questionnaire.

The study being reported on here, as well as earlier investigations into the experiences of commuter students and the 2017 study by SU Student Affairs, were all underpinned by an appreciation of the importance of the out-of-class experience for student development (Pascarella & Terenzini, 1991) and could make a valuable contribution to improving the experience of commuter students.

Frequency tables, bar diagrams and percentage tables are used to illustrate and communicate the data.

7.4 DEMOGRAPHIC DATA

Demographic data represents the characteristics of the human population such as gender, age, income and status. In this study, demographic data of respondents is presented according to residence and commuter student wards, gender and race.

7.4.1 Respondents by residence and commuter student ward

The questionnaire was sent to all the students in the amaMaties cluster, because the cluster consists of both residential and commuter students who make use of the hub and participate in the learning community. Students were asked to which residence or commuter student ward they belonged. Figure 7.2 illustrates responses from the four single gender residences, the co-ed residence and the two commuter student wards in the amaMaties cluster. Of the total number of responses received, the commuter student wards constituted a response rate of 38.07% and the residences 61.93%. The female commuter student ward, Equité, with a 27.49% response rate, had the highest response rate of both commuter and residential students.

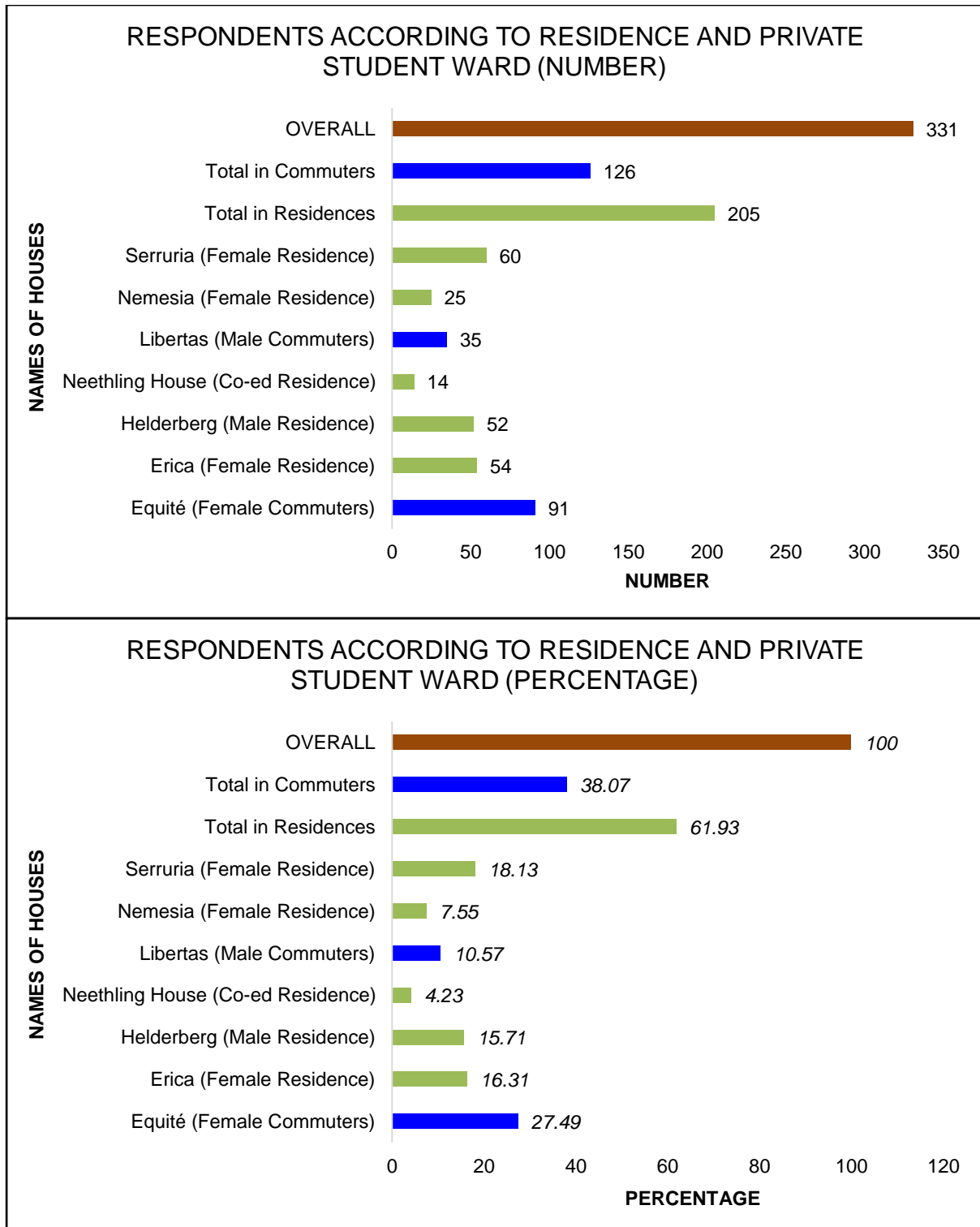


Figure 7.2: Respondents by residence and private student ward

More residential than commuter students completed the questionnaire. This can be explained by the fact that the three female residences, Serruria, Nemesia and Erica, are in close proximity (more or less 10-15 metres) of the hub facility and the respondents are therefore very familiar with the space.

7.4.2 Respondents by gender

The residences and commuter student wards involved in the survey consisted of three female residences with 193 students per residence, one male residence with 311 students and one co-ed residence with 50 male and 50 female students, thus a total of 3 034 students. The two commuter student wards, Libertas and Equité, had 1 019 and 1 025 students respectively. These students constituted the total number of 1 375 male and 1 659 female students in the amaMaties cluster.

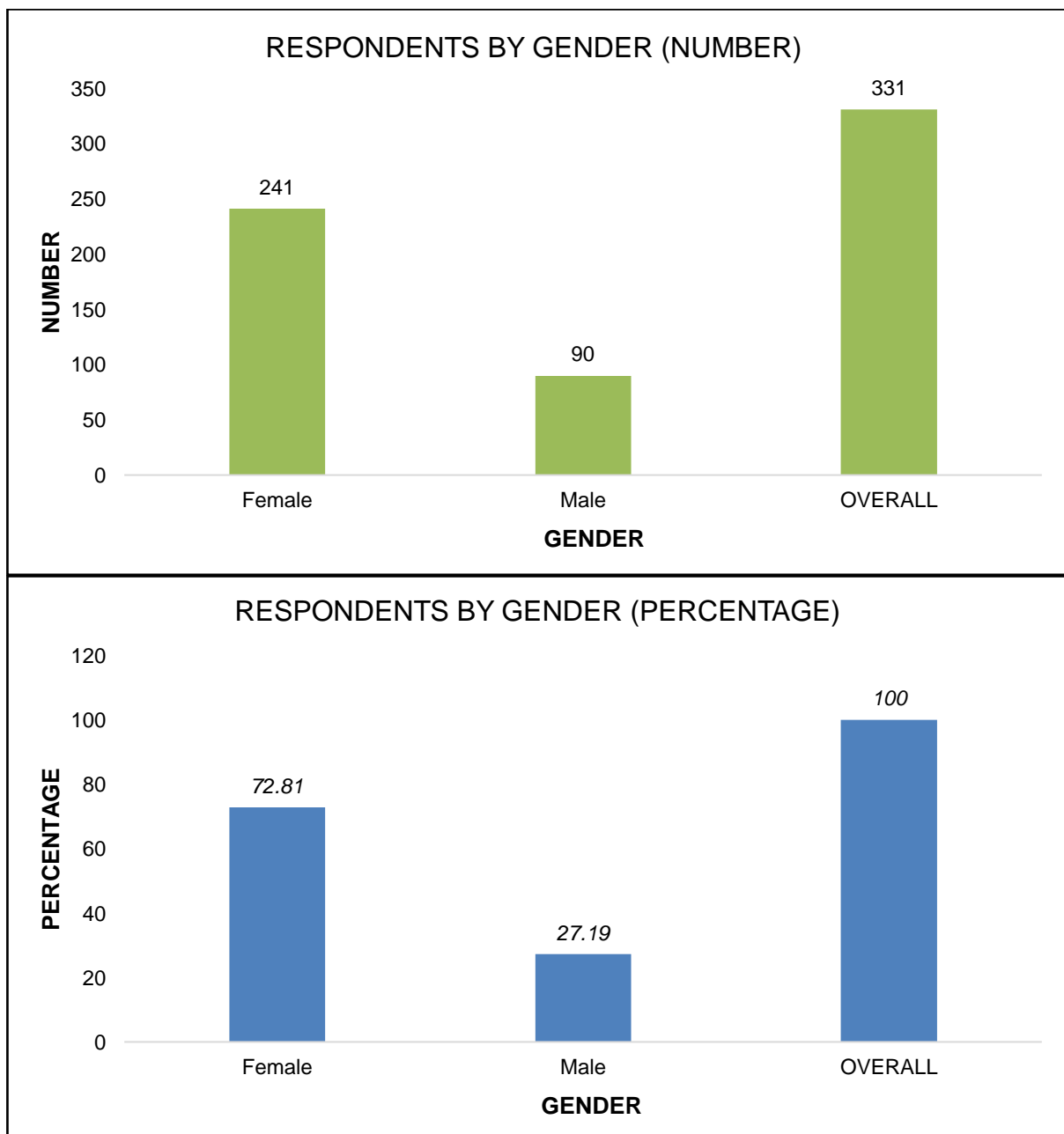


Figure 7.3: Respondents by gender

The students were asked to indicate their gender and according to the results, 72.81% of the respondents were female students and 27.19% of the respondents were male students. This supports the notion that female students have a stronger affiliation to the hub, as illustrated by the response rates in Figure 7.3.

When comparing the demographic data of the 2017 PSO questionnaire to the amaMaties respondents, the percentage profiles for male and female were more or less the same. Of the total number of 1001 commuter respondents to the 2017 PSO questionnaire, a significant number (154) of amaMaties cluster commuter students (15.38% of all the respondents) participated.

7.4.3 Respondents by race

Chapters 2, 3 and 4 referred to student populations, across the world and locally, becoming more diverse due to the democratization of higher education (Schendel & Mccowan, 2016). At SU, a new student residential placement policy that was adopted and implemented from 2014 aimed at making more residence places available for at-risk students, such as first-generation students and students from historically disadvantaged socio-economic and educational backgrounds. This was informed by the seemingly positive effect that residence life has on student performance and, eventually on student success (SU, 2015a). Insight into the racial composition of this study's respondents is therefore important.

Table 7.1 presents the racial composition of students at SU from 2007 to 2016 in residences, in commuter student wards and in the amaMaties cluster. Marked changes in the racial composition of students can be seen from 2014 onwards when the new student residential placement policy was implemented.

Table 7.1: SU undergraduate students, residential students, commuter students, amaMaties cluster students and survey respondents per race, 2007-2016 (percentages)

ALL SU undergraduate students	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE	amaMaties respondents
White	78.3	77.2	77.0	76.2	75.5	75.1	72.9	69.8	68.0	67.2	73.73	70.69
Coloured	15.7	16.2	16.0	16.1	16.2	16.0	16.8	18.1	18.7	19.0	16.89	18.43
Black	4.4	5.0	5.4	6.1	6.7	7.1	8.4	9.8	10.7	11.0	7.45	7.85
Indian	1.5	1.5	1.5	1.6	1.6	1.7	1.9	2.3	2.5	2.8	1.89	3.02
ALL SU undergraduate residential students	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE	amaMaties respondents
White	76.4	73.6	73.6	72.4	69.5	69.0	66.9	63.9	61.0	59.1	68.54	70.69
Coloured	17.1	18.7	18.3	18.7	19.4	18.9	19.7	20.9	21.8	21.7	19.51	18.43
Black	5.5	6.8	7.1	8.0	10.0	10.9	12.1	13.3	14.8	16.5	10.51	7.85
Indian	1.0	0.9	1.0	0.9	1.1	1.2	1.3	1.9	2.3	2.7	1.43	3.02
ALL SU undergraduate commuter students	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE	amaMaties respondents
White	81.2	81.5	81.9	82.0	80.5	77.7	75.0	71.8	70.3	69.9	77.17	70.69
Coloured	14.9	14.6	13.9	13.5	14.1	15.2	16.2	17.5	18.0	18.7	15.65	18.43
Black	1.7	1.9	2.1	2.4	3.4	5.0	6.4	7.9	8.8	8.4	4.81	7.85
Indian	2.0	1.9	2.0	2.2	2.0	2.1	2.5	2.8	2.8	3.0	2.31	3.02
ALL amaMaties undergraduate students	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE	amaMaties respondents
White	No cluster data	No cluster data	80.3	79.9	77.7	79.3	78.2	71.3	68.3	67.5	75.31	70.69
Coloured	No cluster data	No cluster data	12.7	13.4	14.6	12.9	13.5	18.5	20.3	21.5	15.93	18.43
Black	No cluster data	No cluster data	6.1	5.9	6.7	6.9	7.5	8.7	9.6	9.1	7.58	7.85
Indian	No cluster data	No cluster data	0.9	0.9	0.9	0.9	0.7	1.5	1.8	1.9	1.18	3.02

Source: DIRP (2017)

Table 7.1 indicates a proportional decline in white student numbers (from 78.3% to 67.19%), with a concomitant increase in coloured students (from 15.7% to 19.0%), black students (from 4.4% to 11.0%) and Indian students (from 1.0% to 2.8%) over the period from 2007 to 2016. The last column of Table 7.1 specifies the percentages of respondents to the amaMaties questionnaire per race. These percentages closely resemble the institutional undergraduate student race profile of 2016.

Figure 7.4 below illustrates the racial composition of the participants in this study.

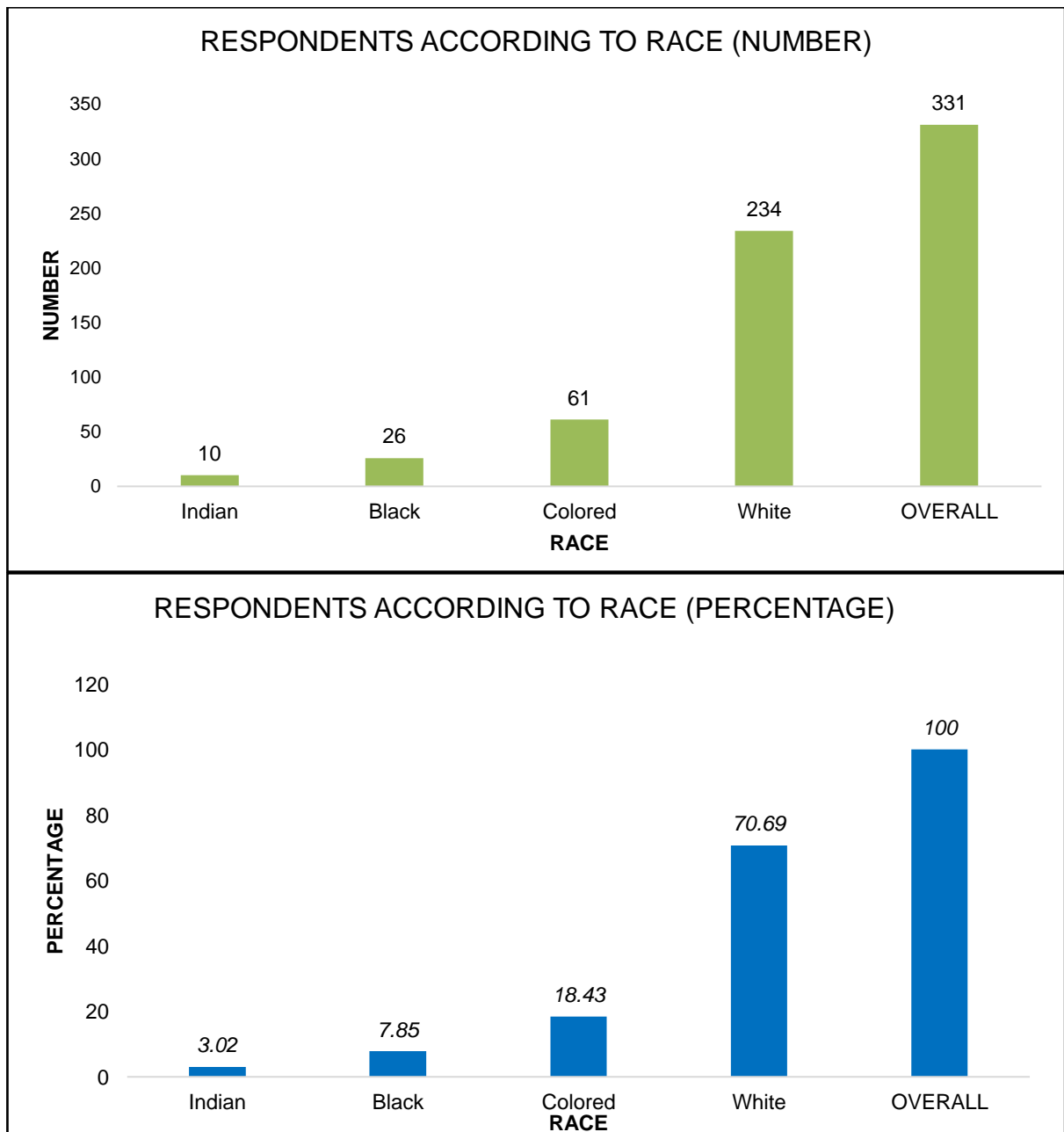


Figure 7.4: Respondents by race

There are only small differences between the racial composition of respondents and the total undergraduate student population at SU. Compared to the total number of undergraduate white students, fewer white students completed the questionnaire. The number of black respondents are quite similar to the SU population, whereas marginally more coloured and Indian students completed the questionnaire compared to the total undergraduate population at SU.

7.5 EXTENT TO WHICH THE OBJECTIVES OF THE STUDY AND THE OUTCOMES OF THE LOGIC MODEL HAVE BEEN ACHIEVED

The Logic Model of this evaluation study was presented in Table 6.2 and further discussed in Chapter 6. Due to the limited scope of a master's study, only the outcomes of the Logic Model and the extent to which they were achieved are covered and reported on in this study. By reporting on the extent to which the outcomes were achieved, the research objectives are simultaneously addressed. The outcomes of the Logic Model included:

- Utilization of the facilities by commuter and residential students
- Addressing the basic needs of commuter students with regard to meals, safety, rest and relaxation
- Participation in learning communities (study, tutor and mentor groups) by commuter and residential students
- Promotion of social interaction among commuter and residential students
- Enhancing the academic experience and academic success of commuter students.

The extent to which these outcomes have been achieved are illustrated by the survey responses as reported below.

7.5.1 Utilization of the facilities by commuter and residential students

Respondents were asked whether they were aware of the fact that there is a hub building for the amaMaties cluster. When they answered 'yes', they were taken to the questions that asked whether they had visited it, and if they did, how many times they visited the facility during the first, second, third and fourth terms of 2015 respectively. They also had to indicate for what purposes they had used the hub by ranking their choices from one (most often used for) to eight (least often used for). The participants could further specify alternative uses and what other services they would want to have in the space.

The number and percentage of commuter and residential respondents who indicated that they were aware of the existence of the hub are presented in Figure 7.5.

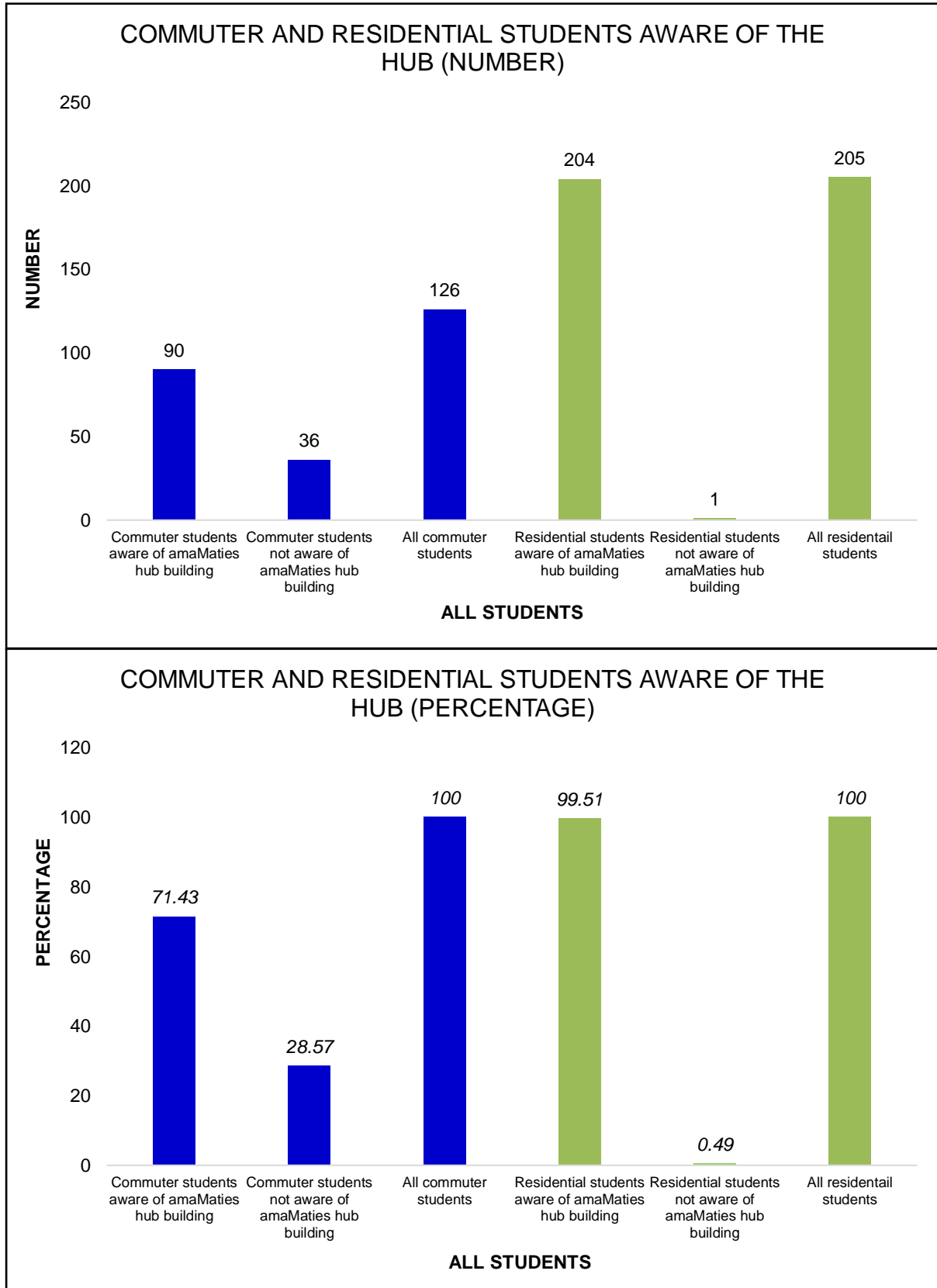


Figure 7.5: Hub awareness of commuter and residential students

More residential students (99.51%) knew about the existence of the hub than commuter students (71.43%). This could be explained by the fact that the hub is located in close proximity to the female residences in the cluster, which makes it easy for the residential students to visit the hub.

The number and percentage of commuter and residential respondents who indicated that they had visited the hub, are represented in Figure 7.6.

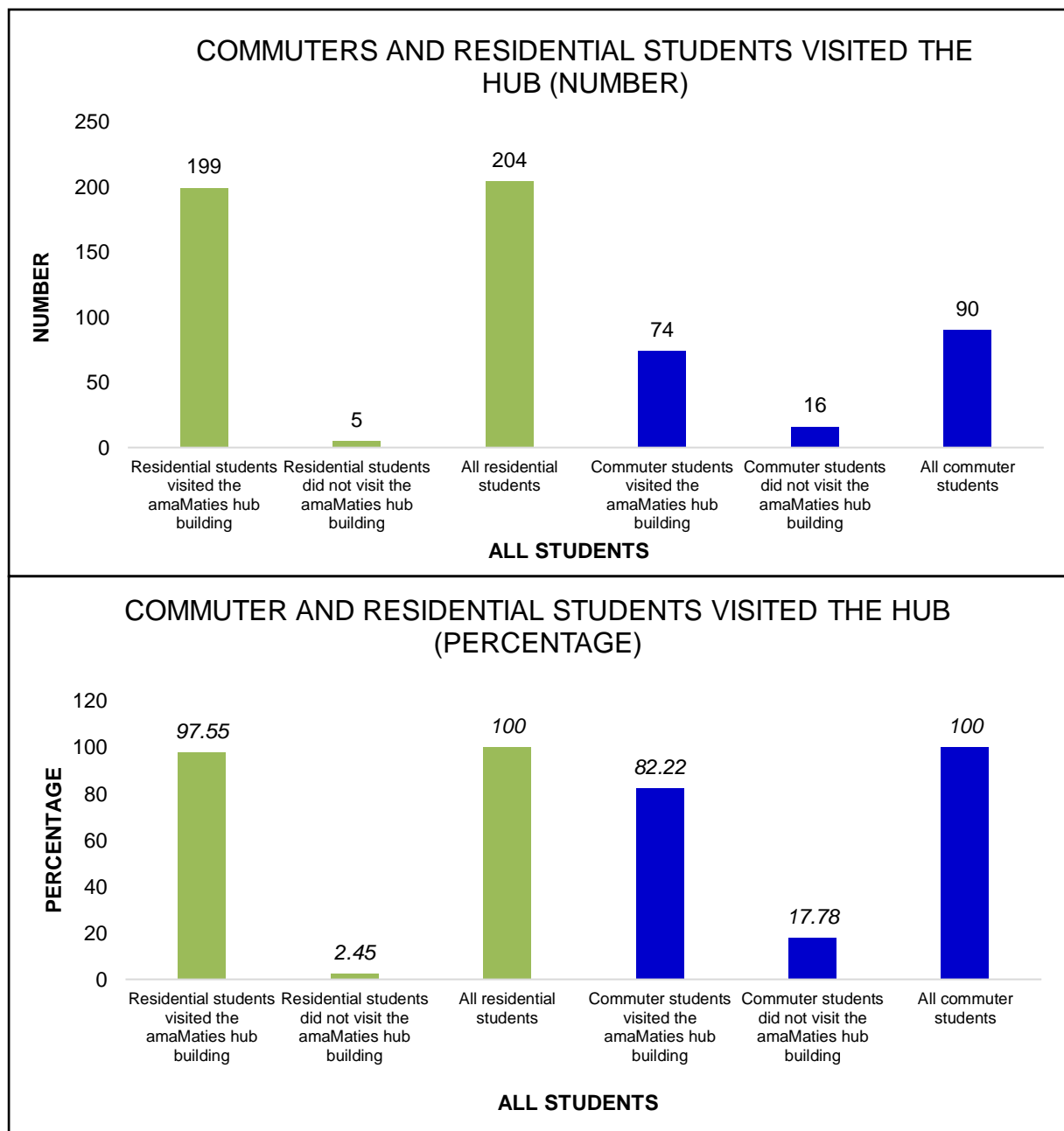


Figure 7.6: Number and percentage of residential and commuter respondents who visited the hub

Of those students who knew about the hub, a larger percentage of residential than commuter students (97.55%) tended to visit the hub (82.22%) This again illustrates the effect of the hub being geographically close to the female residences, whereas commuter students have to make some effort to get there.

The commuter and residential students' utilization of the facilities during a period of four terms (an academic year at SU) is presented in Figure 7.7.

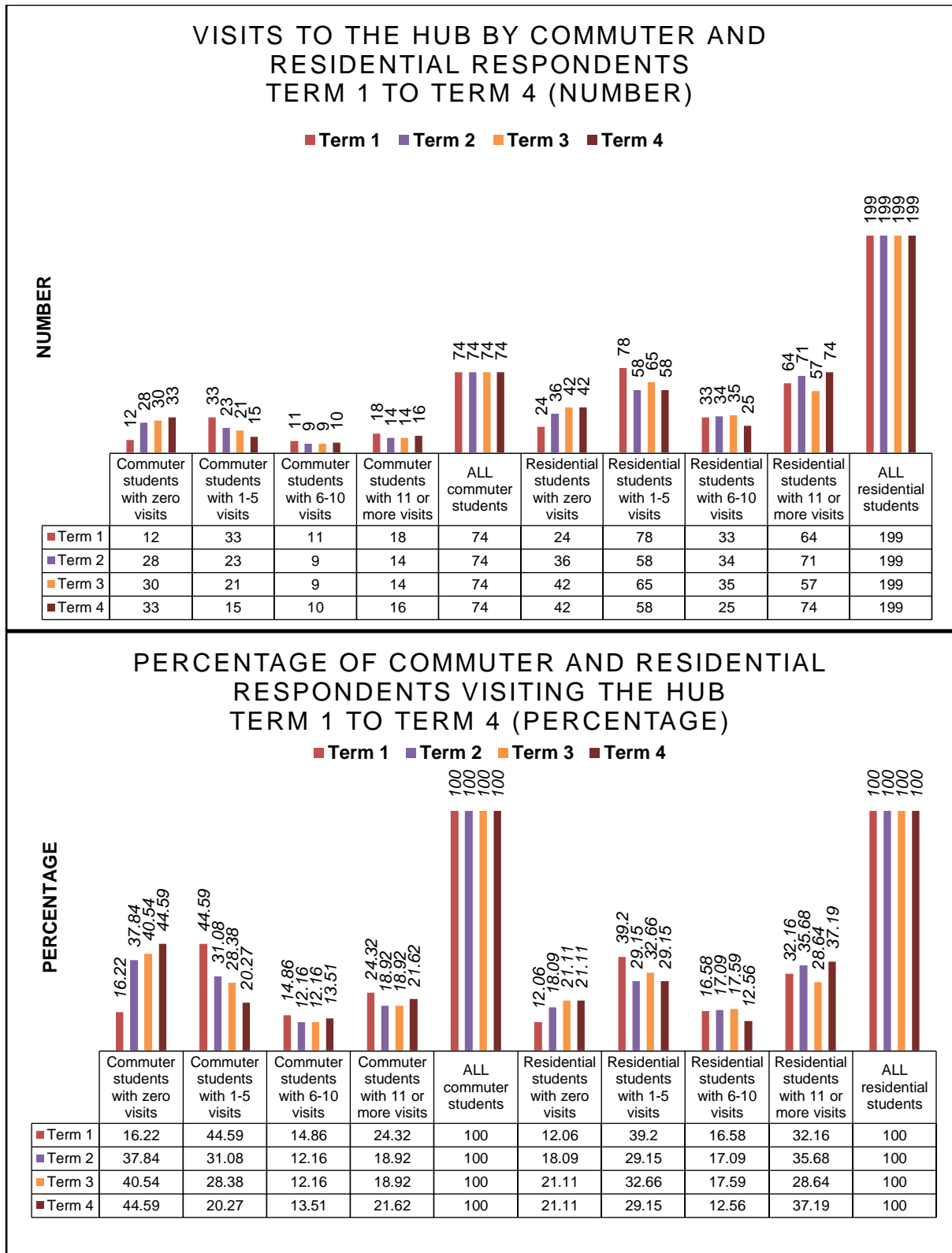


Figure 7.7: Visits to the amaMaties hub by commuter and residential students per term

At the start of the first term, SU usually receives first year students ten days earlier than the senior students. During this period, first year students attend an orientation

program to welcome them into the university and into the residential and commuter communities. Students voluntarily attend the academic and social program in the curricular and co-curricular environments, aimed at helping them with the transition from high school to university and in familiarizing themselves with the campus environment before the classes start. This program runs for approximately ten days.

During term one of the period under study, most commuter respondents visited the hub between one and five times (33 responses), and 11 or more times (18 responses). The first category can be related to the commuter students' welcoming program, because a number of activities happened in the hub during the welcoming or orientation period. During term two, many academic assessment activities occurred, making it a busy academic term. Hence during this term, commuter students did not frequently make use of the facility, as illustrated by the 28 of the 74 respondents who did not visit it at all and the 32 respondents who visited it 10 or less times. Term three demonstrates a similar pattern to that of term two, where 30 commuter respondents indicated that they did not visit it at all. The hub facility was mostly visited during the fourth term. The fourth term is the final term of the academic year, and because the facility lends itself to be a comfortable study space, it was frequented during this term – with the highest number of respondents who visited the hub 11 times or more. To summarize the visits paid by the commuter participants to the hub: 62 students visited the hub more than once during term one; 46 and 44 respondents visited the hub more than once during term two and three, whereas 41 students visited the hub more than once during term four.

The residences form an integral part of the amaMaties cluster and the experience that commuter students have in this space. One of the aims of the cluster initiative and the hub facility was to integrate commuter and residential students in the out-of-class environment; for this reason the utilization of the hub by residential students was also investigated. Figure 7.7 shows that, throughout the four terms, an average of 36 residential respondents did not visit the hub. Sixty-five respondents visited the hub between one and five times over the four terms, an average of 32 residential respondents visited the hub between six and ten times, and an average of 67 residential respondents visited the hub more than eleven times over the four terms.

In the 2017 PSO questionnaire, 86.36% (133) amaMaties respondents indicated that they had visited the hub, 10.39% (16) did not visit the hub and 3.25% (5) did not respond to this item. This indicates a significant growth in the number of visits since 2015.

7.5.2 Addressing of basic needs of commuter students with regard to meals, safety, rest and relaxation

Various questionnaire items pertained to the addressing of basic needs of commuter students, such as food, safety, rest and social interaction. As far as meals are concerned students could either take meals in the Tinie Louw dining hall that primarily caters for residence students, but is also open for commuter students, or buy food from the deli at the hub.

Table 7.2: Awareness and utilisation of the meal offering by commuter and residential respondents at the dining hall in the amaMaties cluster

COMMUTER STUDENTS: Aware of meal offering	Number	%
Commuter students aware of meal offering at the dining hall	67	53.17
Commuter students <i>not</i> aware of meal offering at the dining hall	59	46.83
ALL	126	100
Utilisation of meals at the dining hall	Number	%
Commuter students took meals at the dining hall	12	17.91
Commuter students did not take meals at the dining hall	55	82.09
ALL COMMUTER STUDENTS	67	100.00
RESIDENTIAL STUDENTS: Aware of meal offering	Number	%
Residential students aware of meal offering at the dining hall	203	99.02
Residential students not aware of meal offering at the dining hall	2	0.98
ALL RESIDENTIAL STUDENTS	205	100
Utilisation of meals at the dining hall	Number	%
Residential students took meals at the dining hall	107	52.71
Residential students <i>did not</i> take meals at the dining hall	96	47.29
ALL RESIDENTIAL STUDENTS	203	100.00

Of the 67 commuter respondents who knew that there were meal offerings, 12 took meals and 55 did not.

7.5.2.1 Dining hall

The first of the items pertaining to the basic needs of commuter students asked respondents whether they were aware of the meal offering at the dining hall. As seen in Table 7.2, 53.17% of the commuter students were aware of the offering at the dining hall, whereas 46.83% were not aware of the offering. Those who were aware were also asked whether they made use of the facility to take meals at the dining hall in the amaMaties cluster.

The results for residential respondents to this item was very different from those of commuter students, as 99.02% of the residential respondents were aware of the offering, whereas 0.98% were not aware of the meal offering at the dining hall. Of the 205 residential respondents who knew that there were meal offerings, 107 took meals and 96 did not.

Reasons that commuter respondents posed for not eating at the dining hall were that they brought food from home, or made their own food in their flats or waited to eat at home. They also experienced a lack of variety in the meals and the poor quality of the food discouraged them from eating at the dining hall. Residential respondents commented that the food at the dining hall was fattening and therefore they chose to make their own, healthy food. Some of the Helderberg (male residence) respondents indicated that the dining hall was too far away from their residence and that the food portions were too small.

One respondent commented:

The food is not great, except Sunday lunches. I don't understand how a food company cannot even provide good food when that is their main purpose. If food does not look appetizing, it most probably will not be appetizing. Together with a team, I have made food for big groups before ..., and we managed to make healthy and very good food at a very low price. That is why I struggle to grasp why the ... company cannot do the same. I mean this in the best way, it is only constructive criticism. To dine together can mean so much and is the place where relationships are built, ideas are shared and souls [c]ome together. But if the food is keeping people away

from the dining table, then it is also standing in the way of people having a good time around the dinner table while connecting with one another. If you ask students who live in residences what is one of the things they miss the most about home, they will say a home cooked meal or sitting around the dinner table with my family.

More than 75% of the commuter respondents to the 2017 PSO questionnaire indicated that they did not eat meals in the dining hall, advancing similar reasons to those of the respondents to the amaMaties questionnaire.

7.5.2.2 Deli

The amaMaties hub also has a deli where students can buy food. Eating at the deli proved to be quite popular, as seen in Figure 7.8, which shows that 181 respondents from a possible 199 indicated that they ate at the deli. Students buy food with their student cards, the cost of which then gets loaded onto their student accounts.

This item had an average ranking of 2.82 (with 1 = most often and 8 = least often) by residential respondents and 3.49 by commuter respondents, which was also the highest ranked score of all items by both groups.

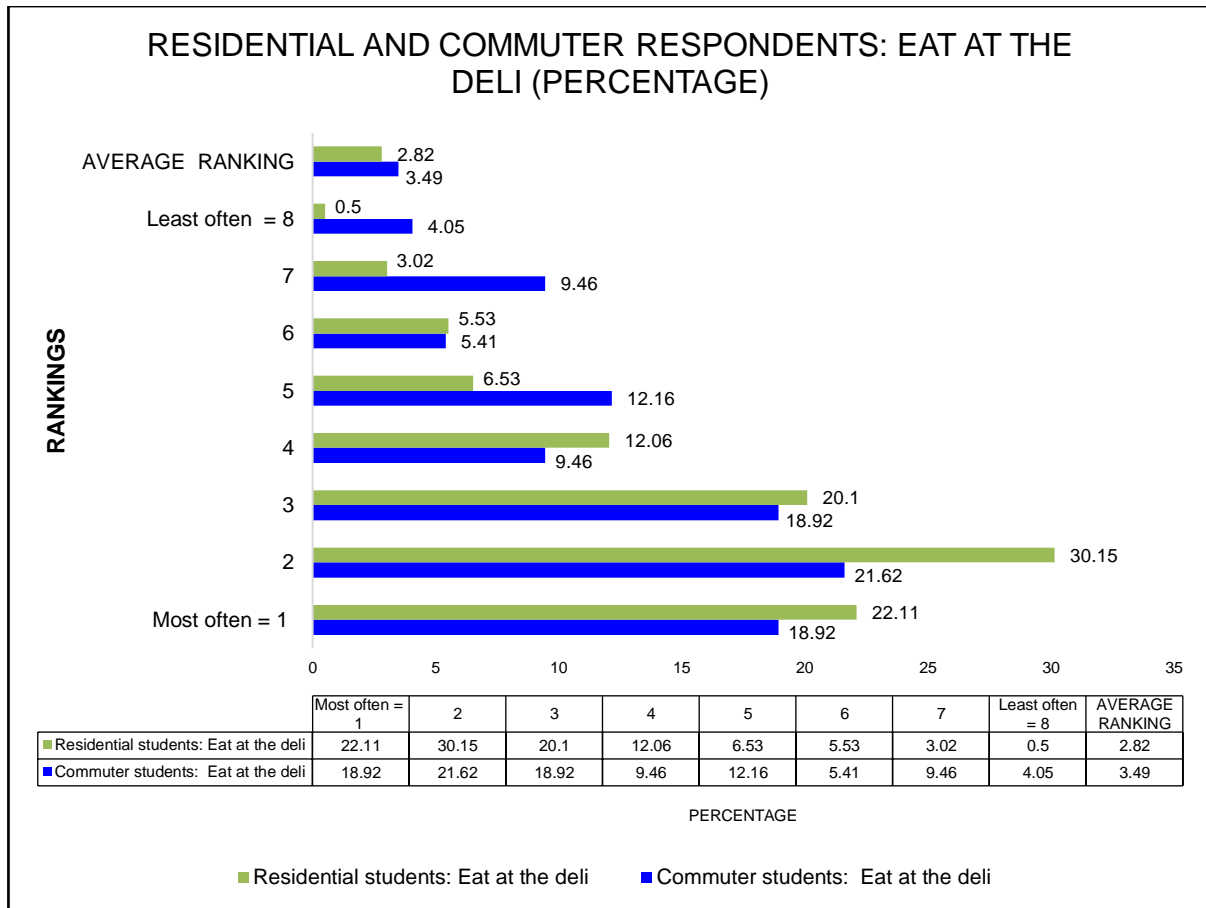


Figure 7.8: Residential and commuter respondents who eat at the deli

More than 60% of the amaMaties commuter respondents to the 2017 PSO questionnaire supported the deli.

7.5.2.3 Safety, rest and relaxation

Both commuter and residential students also recognised other ways in which the hub had addressed their basic needs. Residential female respondents commented that the hub provided a safe space and that everybody knew where it was. It gave them a sense of belonging, because it was a space to eat, study, meet with friends and was close to the female residences. The commuter respondents too felt that the hub provided a safe and secure place to study and to meet with friends in the PSOs and in the residences. The lockers that are provided in the hub were used the least often by the residential respondents (ranked 6.44), because the respondents lived in the female residences close to the hub. For commuter students the hub was a safe space to leave

books, cellphone chargers, laptops and notes, and which also provided a 'lost-and-found' service for personal possessions.

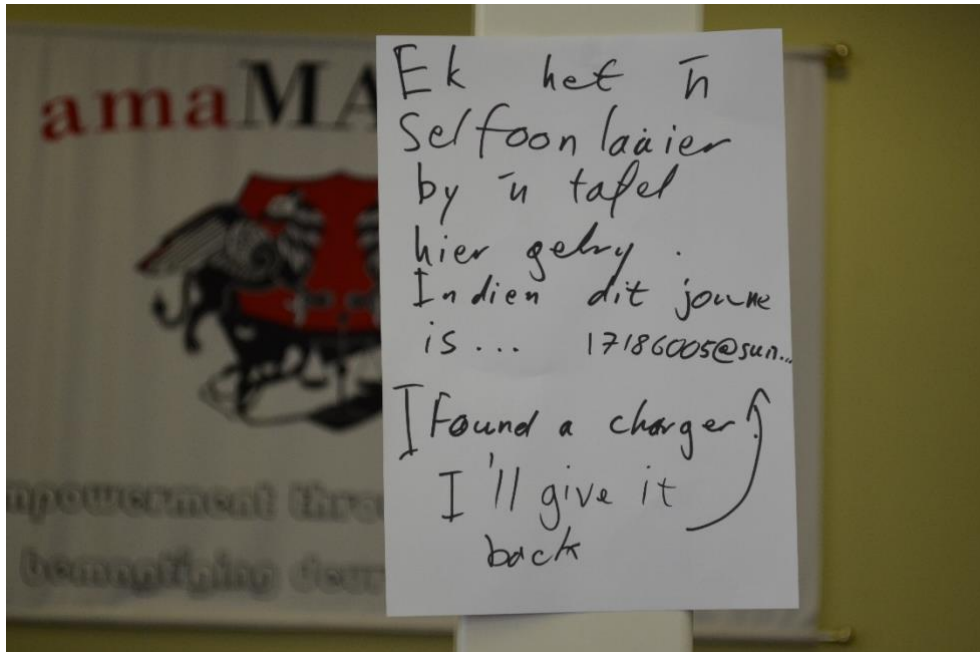


Photo 12: A 'lost-and-found' notice at the amaMaties hub

Source: Author

In Figure 7.9, the percentage of residential and commuter respondents that used the hub as a place to relax are presented.

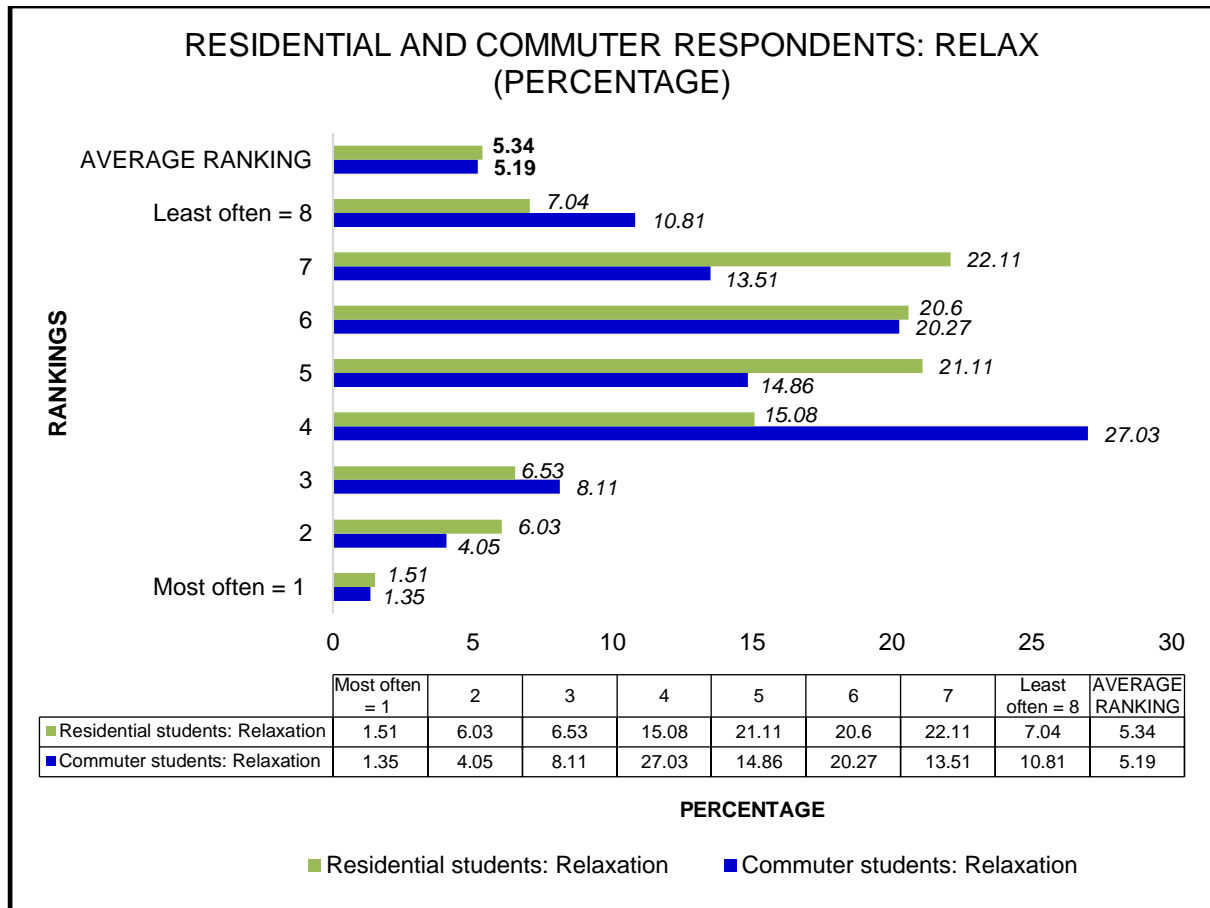


Figure 7.9: Residential and commuter respondents using the amaMaties hub to relax

Average low rankings of 5.34 and 5.19 were given to relaxation by the residential and commuter respondents respectively. This could be related to the fact that the hub was most frequently used for studying. The respondents therefore did not feel that the hub was a space to relax in, since too many respondents used it as a space for studying. On the other hand, the dining hall, deli and braai area provided spaces for them to relax in.

The respondents further felt that the space contributed to their holistic well-being, because they felt safe and less lonely, as illustrated by the following comment:

While I haven't used the hub this year because I moved home, I found it very useful during my stay on campus. Firstly, it was a nice studying environment. Often working alone in your room becomes lonely. I found it easier to focus when in the hub because there were others who were

studying too. Secondly, created a social space for during exams and tests. You could go there with your friends to work. It provided a meeting point. The deli was very convenient for study snacks. It also provided a space to meet other students from the different res[idence]s. It was nice and close to res so you did not have to travel far (like with going to the [library] or the [study centre] and could easily move between res[idence] and the hub.

The hub was therefore seen to be a comfortable and safe space to study and to have social interaction with friends, but less as a space to relax in.

7.5.3 Participation in learning communities (study and mentor groups) by commuter and residential students

Figure 7.10 illustrates that, on average, residential respondents (average ranking of 4.12) more often used the hub for study groups than the commuter respondents (average ranking of 4.49). The residential respondents live closer to the hub and thus found it easier to participate in study groups there than the commuter respondents.

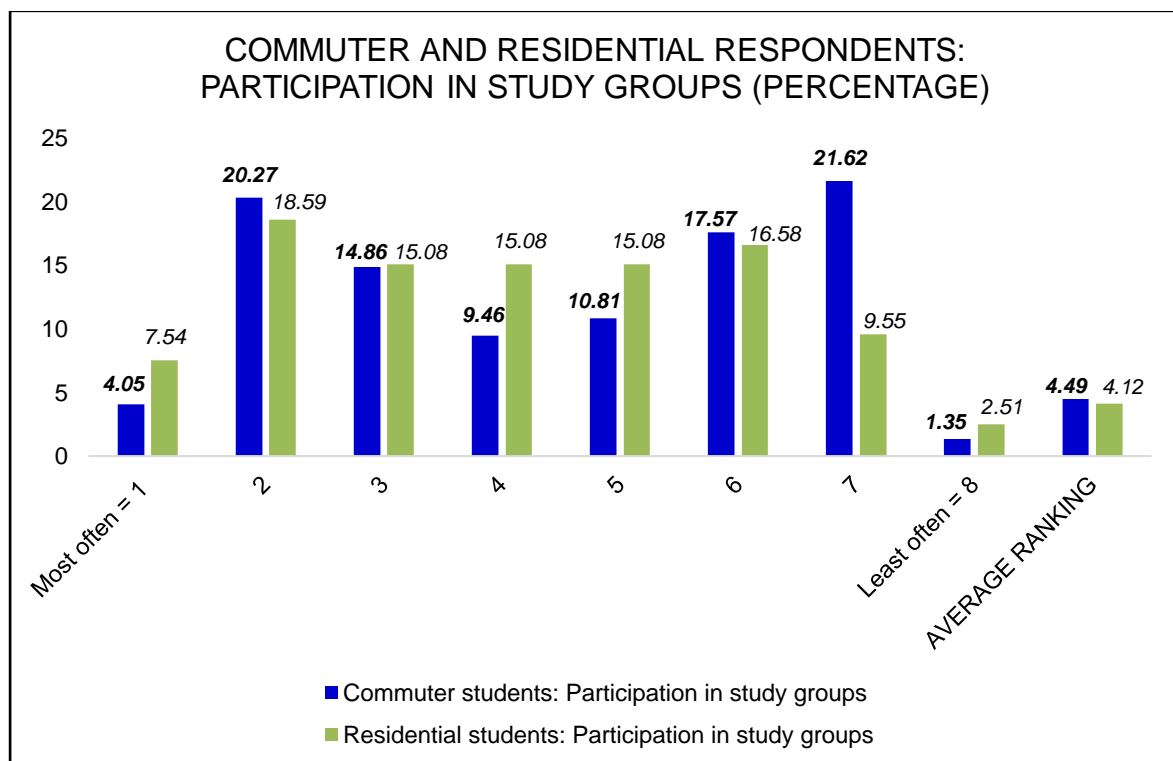


Figure 7.10: Commuter and residential respondents' participation in study groups

According to the respondents, the integrated spaces promoted the forming of study groups, the atmosphere motivated the respondents to work and meaningful conversations took place in the space. All of this stimulated learning to occur.

A respondent commented that:

It creates a platform for individuals to not only concentrate on academic workload, but also to form study groups and interact with fellow students. So many times just seeing someone in the hub and talking about a certain subject, it created the opportunity to share thoughts, guidelines as well as notes and tips on some subjects or upcoming test, not only from students in the same faculty, but across years of study (first year, second year and third year).

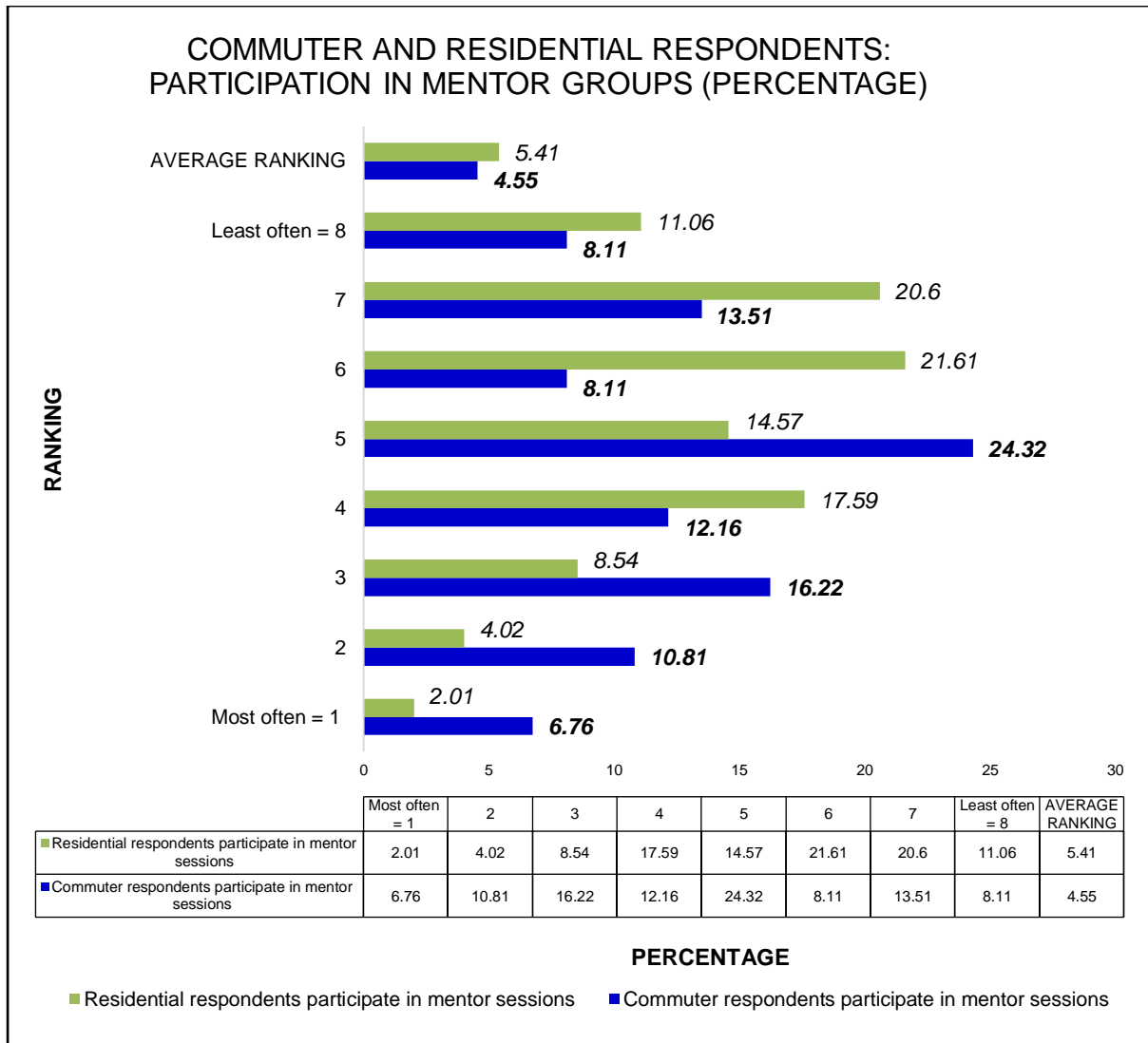


Figure 7.11: Commuter and residential respondents’ participation in mentor groups

Figure 7.11 illustrates that commuter respondents more often made use of the hub for meeting with their mentors than residential respondents. Of the commuter respondents, 45.95% ranked this item 1 to 4, compared to the 32.16% of residential respondents that ranked it likewise. Female commuter respondents further commented that mentors were experienced as being approachable and that they offered valuable academic, social and emotional support.

The respondents to the 2017 PSO questionnaire similarly indicated that they participated in tutor groups in the hub.

7.5.4 Promotion of social interaction among commuter and residential students

Student communities enable students to engage, which concomitantly has a positive influence on student success. This was discussed in detail in Chapter 5. As seen in Figure 7.12, almost 60% of the commuter respondents indicated that they used the hub to socialize with friends (ranked 1 to 4), whereas almost 38% of the residential respondents used it to socialize (ranked 1 to 4).

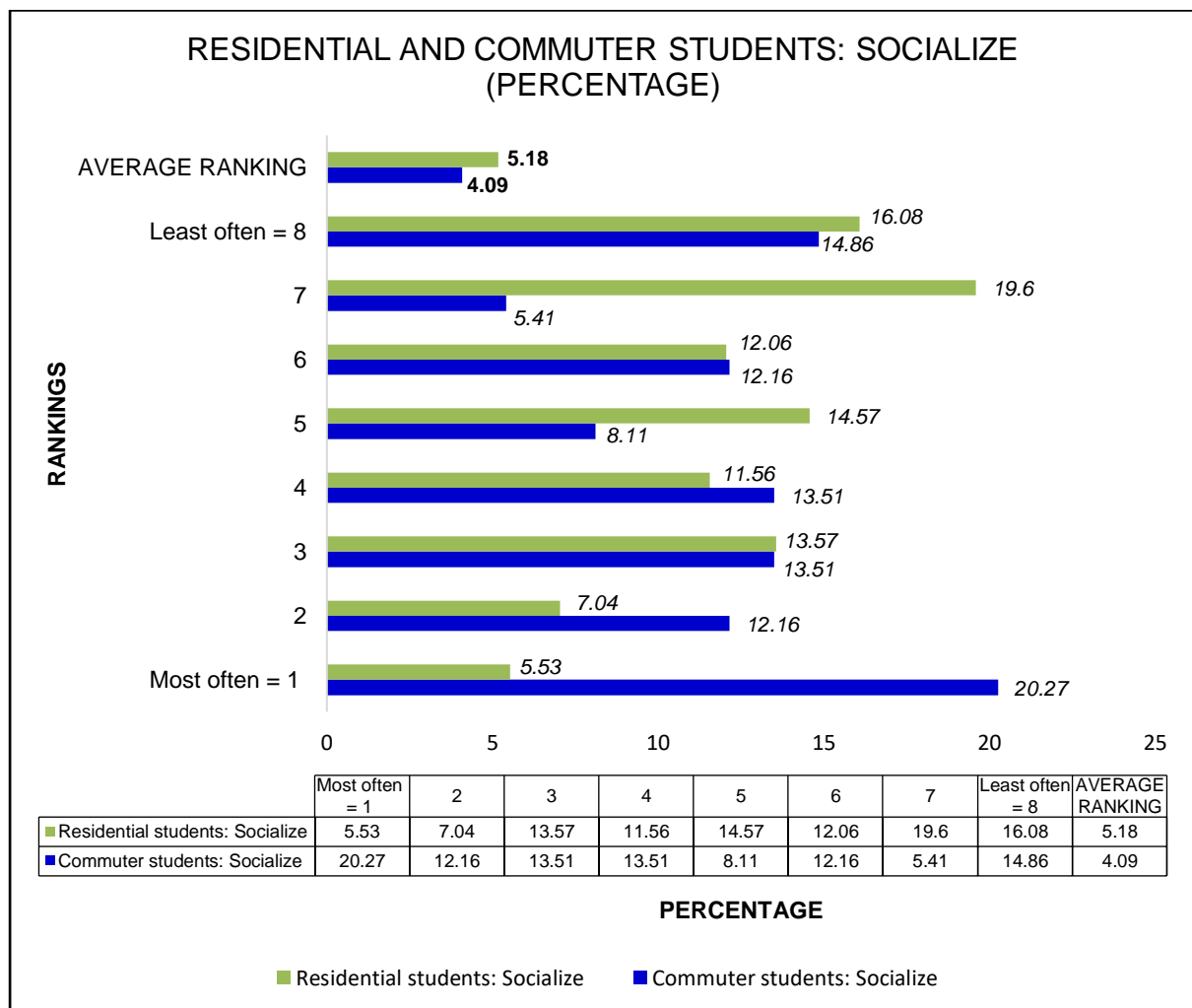


Figure 7.12: Commuter and residential respondents’ use of the amaMaties hub to socialize

The commuter respondents regard it as a meeting place, because they have nowhere else to meet during the day. Some of them need to commute daily and do not live in

private accommodation near the campus, whereas the residential respondents can also meet in their residence, which is in close proximity. A respondent claimed that:

I use the hub mostly for dining and socializing with old and new friends. It provides us with a place to meet, eat and study which no other Cluster does. It provides us with a common room where everyone can meet regardless of whether you're in a res or PSO that belongs to amaMaties.

The respondents also felt that the hub provides a residence 'vibe' for those students who do not live in residences.

7.5.5 Enhancing the academic experience and success of commuter students

In Chapter 4, the retention rates of residential and commuter students of all four race groups were discussed. It was clear that students living in residences persisted longer at SU than the commuter cohort. Other obligations, such as travel time and other life roles, contributed to commuter students' inability to spend more time on their studies or to participate in campus activities. When looking at the full year weighted average as percentage of Grade 12 marks after one year of study, the difference between commuter and residential students, among all race groups taken from 2007 to 2016, has narrowed – as was seen in Table 4.8 in Chapter 4. When the respondents were asked for what purpose they were mainly using the hub, they indicated that the hub was mostly used to study by self.

This is confirmed by the high rankings of 2.95 and 3.91 by the residential and commuter students respectively, as illustrated in Figure 7.18. In comparison to this, a ranking of 5.34 and 5.19 respectively were given to relax, 4.49 and 4.12 to study in groups, and 5.41 from the residential respondents and 4.55 from the commuter respondents to mentor groups.

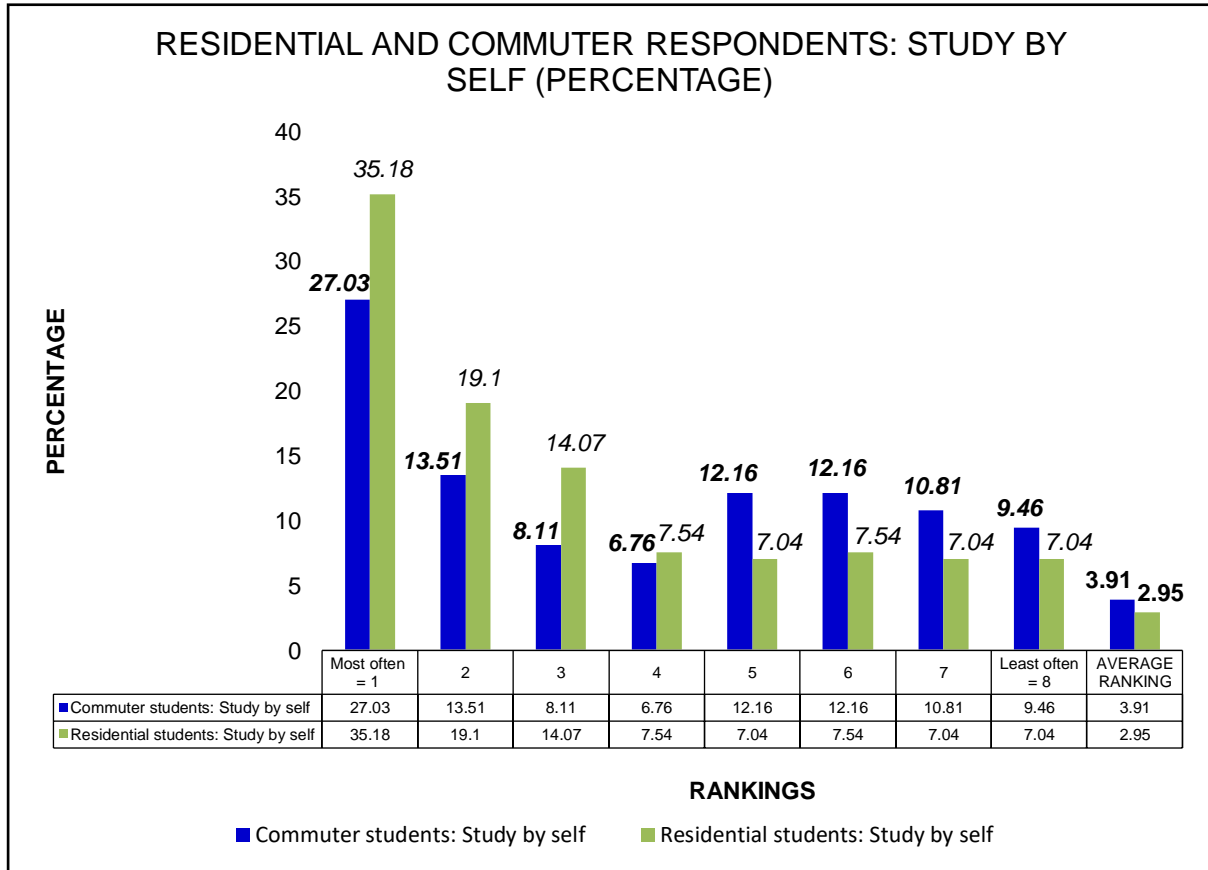


Figure 7.13: Commuter and residential respondents’ use of the amaMaties hub to study

The primary reason for the hub’s popularity as a study space seems to be that they felt encouraged by other students around them also studying. Respondents indicated that the studious atmosphere helped them to concentrate and to get the work done. The conference room further allowed them to have group discussions. The mere fact that the hub got packed during exam times, motivated them to study harder when they observed other students working hard too. This gave them a feeling of solidarity in a space where they all belong.

One respondent explained that the hub contributed to both academic and social involvement:

It is a brilliant space to study after hours that allows one to sit in a[n] open manner and discuss academic problems if need be. I made engineering friends by studying in the hub and being forced to walk up to them to ask if they could solve the engineering problems that I struggled with. Since then

we have often studied in close proximity to each other and helped each other through our degree. It was LITERALLY as a result of the environment that the hub provided – the open tables – that I was able to meet fellow students and engage on a[n] academic level to help each other. Since then we have become social friends as well. I believe these people will be friends for life.

Responses to the questionnaire gave evidence of the enhancement of the academic experience of the commuter and residential respondents, but in order to evaluate whether commuter students' academic performance was affected by the hub, longitudinal statistical data was consulted. This included students' performance in their first year of study, compared to their school-leaving results, with differentiation between commuter students in general and amaMaties cluster students specifically, and differentiation between commuter students and residential students, all per race. The academic performance of all SU undergraduate students was also tracked and compared to the performance of residential and commuter students. Lastly, the changes in graduation rates of all SU final year students, residential students and commuter students were compared.

In Table 7.3, the full year weighted average²³ is represented as a percentage of the Grade 12 results of all the first year commuter students per race at SU and in the amaMaties cluster.

²³ The averages presented in Tables 7.3 and 7.4 and in Figure 7.16 represent student performance as a percentage of Grade 12 average. This 'levels the playing ground' for students from disadvantaged school backgrounds. Henceforth these statistics are simply denoted as 'averages'.

Table 7.3: SU first-year amaMaties cluster and commuter students' averages as percentage of Gr 12 per race, 2007-2016

Full year weighted average as % of Gr 12: First-years – AMAMATIES CLUSTER COMMUTER & ALL COMMUTER STUDENTS AT SU (2007-2016)											
	Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AMAMATIES	All first years	– ²⁴	-	71.86	74.6	74.55	76.65	76.59	76.3	76.3	76.92
SU	All first years	66.86	69.1	70.77	72.14	71.88	76.45	77.08	76.94	77.24	77.39
AMAMATIES	White first years	-	-	72.94	74.85	75.36	76.94	76.89	76.71	77.37	77.68
SU	White first years	67.33	69.28	70.6	71.52	72.17	76.79	77.61	77.27	77.6	78.26
AMAMATIES	Coloured first years	-	-	65.38	73.76	72.19	75.69	75.65	74.67	74.61	76.29
SU	Coloured first years	64.59	68.25	71.21	74.57	76.01	76.05	76.09	76.27	77.27	76.85
AMAMATIES	Black first years	-	-	73.81	76.36	71.56	75.08	75.61	77.58	71.92	73.17
SU	Black first years	67.24	68.51	76.13	81.34	57.12	73.13	72.95	75.74	74.59	70.22
AMAMATIES	Indian first years	-	-	54.56	58.94	68.65	74.91	69.41	69.23	74.89	72.92
SU	Indian first years	59.11	67.47	68.26	68.98	72.56	73.5	76	75.3	75.36	77.35

Source: APS (<http://admin.sun.ac.za/trackwell/ssq11>) & <http://admin.sun.ac.za/trackwell/ssq16>)

In Table 7.3 the year 2009 is highlighted in green, as that was the year when the cluster initiative became active at SU. In the same year, for the first time the amaMaties cluster grouped their first year students into academic faculties during the orientation week, with the purpose of facilitating the establishment of learning communities in faculties. Small diverse groups of first-years, consisting of male and female students from the different houses in the cluster, were also formed to whom mentors were assigned in order to support them with the transition from school to university, and also with the

²⁴ No data available for the amaMaties cluster during 2007 and 2008, because the cluster initiative became active during 2009.

academic challenges they were experiencing. The *amaMaties* hub was then opened in 2012 – the year highlighted in purple in Table 7.3.

When comparing the averages for *all first year commuter* students at SU, from 2009 (70.77%) to 2016 (77.39%), an improvement of 6.62% is noticeable. The *amaMaties commuter first year* students also showed an improvement of 5.06% from 2009 (71.86%) to 2016 (76.92%). The *white commuter* students' performance showed an improvement of 7.66%, from 70.6% in 2009 to 78.26% in 2016. *SU coloured commuter* students' averages showed an improvement of 5.64% from 2009 (71.21%) to 2016 (76.85%), whereas *coloured amaMaties commuter* students showed a significant improvement of 10.91% from 2009 (65.38%) to 2016 (76.29%). The *black commuter* students in the *amaMaties* cluster had a smaller decline in performance (-0.64%) from 2009 (73.81%) to 2016 (73.17%) than all *black commuter* students at SU (-5.91%) from 2009 (76.13%) to 2016 (70.22%). The *Indian commuter* students at SU had an average improvement rate of 9.09% from 2009 (68.26%) to 2016 (77.35%), whereas the performance of *Indian commuter* students in the *amaMaties* cluster improved twice as much with 18.36% from 2009 (54.56%) to 2016 (72.92%).

When tracking the performance of *SU first year commuter* students from 2007 to 2016, improvements are even more noticeable. The weighted average taken as a percentage of the Grade 12 marks for *all first year commuter* students at SU from 2007 (66.86%) – two years earlier than the start of the cluster initiative in 2009 – to 2016 (77.39%) shows an improvement of 10.53%. The improvement of the *white commuter* students of SU from 2007 (67.33%) to 2016 (78.26%) was 19.07%. The improvement in performance of the *coloured commuter* students from 2007 (64.59%) to 2016 (76.85%) was also significant, namely 12.26%. The weighted average performance for the *black commuter* students from 2007 (67.24%) to 2016 (70.22%) improved with 2.98%. For *Indian commuter* students the improvement was 18.24% from 2007 (59.11%) to 2016 (77.35%).

The averages for all undergraduate students at SU are presented in Table 7.4.

Table 7.4: SU undergraduate students in commuter student wards and residences full year weighted averages as percentage of Gr 12 per race, 2007-2016

Full year weighted average as % of Gr 12: First-years, non-final years, Final years and All undergraduate students in commuter student wards (2007-2016)											
Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE
All undergraduate students	70.82	71.02	71.76	73.81	74.63	76.45	77.08	76.94	77.24	77.39	74.71
White	71.15	71.25	71.73	73.62	75.1	76.79	77.61	77.27	77.6	78.26	75.04
Coloured	68.74	69.08	71.6	74.54	74.38	76.05	76.09	76.27	77.27	76.85	74.09
Black	72.32	73.49	74.38	79.82	69.1	73.13	72.95	75.74	74.59	70.22	73.57
Indian	70.48	72.12	70.9	71.06	69.95	73.5	76	75.3	75.36	77.35	73.20
Full year weighted average as % of Gr 12: First-years, non-final years, Final years and All undergraduate students in residences (2007-2016)											
Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE
All undergraduate students	70.13	71.19	73.29	75.09	76.14	75.78	76.2	76	76.57	77.39	74.78
White	70.15	71.04	73.29	75.12	76.64	75.92	76.55	76.81	76.86	78.05	75.04
Coloured	67.86	69.9	72.08	74.46	74.37	75.33	75.91	74.36	76.79	77.05	73.81
Black	77.22	76.95	77.36	77.21	76.39	75.97	74.65	74.67	74.85	75.43	76.07
Indian	71.27	71.07	69.58	68.09	69.66	72.02	75.32	73.07	76.57	76.17	72.28
Full year weighted average as % of Gr 12: First-years, non-final years, Final years and All undergraduate students at SU (2007-2016)											
Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE
All undergraduate students	70.88	71.44	72.25	74.4	75.15	76.01	76.65	76.48	76.96	77.29	74.75
White	71.04	71.44	72.34	74.24	75.57	76.23	77.11	76.98	77.3	78.01	75.03
Coloured	68.62	69.9	71.43	74.48	74.36	75.7	75.95	75.38	77.03	76.91	73.98
Black	76.58	76.69	73.66	77.69	73.33	74.89	73.85	75.09	74.71	73.21	74.97
Indian	70.86	71.97	70.94	70.62	69.85	73.21	75.82	74.57	75.75	76.73	73.03

Source: APS (<http://admin.sun.ac.za/trackwell/ssq11>) & <http://admin.sun.ac.za/trackwell/ssq16>)

White commuter students had an average of 75.04% over the period from 2007 to 2016, which is similar to the average of *white students living in residences* (75.04%). *Coloured commuter* students had an average of 74.09%, which is marginally higher than that of *coloured students living in residences* (73.81%). *Black commuter* students

had an average of 73.07%, whereas *black residential* students had an average of 76.07%. This could be related to the academic support networks that exist in the residences and which might be lacking at home or in private accommodation. *Indian commuter* students had an average of 73.02%, which was marginally higher than the average of 72.28% of *Indian students living in residences*. One possible explanation for this could be the strict rules and strong discipline that traditionally prevail in Indian families.

Figure 7.14 gives a visual representation of the average performance of all undergraduate SU, commuter and residential students, from 2007 to 2016.

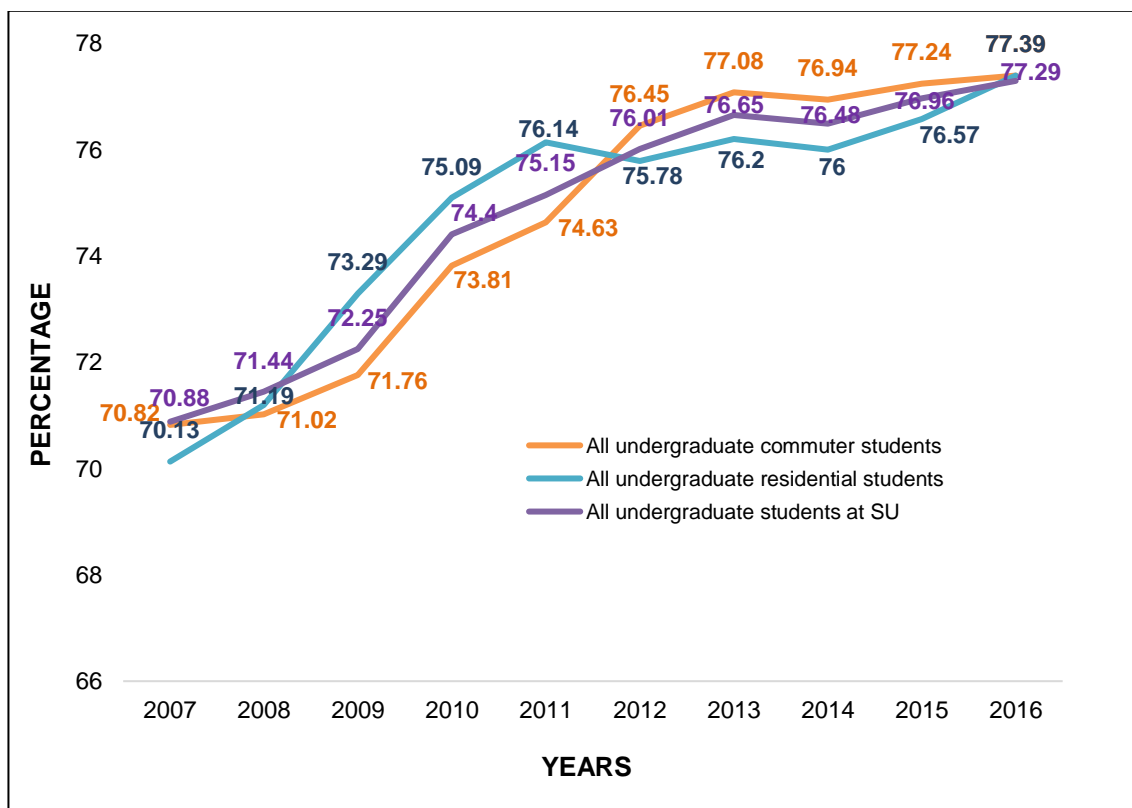


Figure 7.14: SU undergraduate, residential and commuter students' full year weighted averages as percentage of Gr 12, 2007-2016

Source: APS (<http://admin.sun.ac.za/trackwell/ssg11>) & <http://admin.sun.ac.za/trackwell/ssg16>)

A steady improvement in the averages of undergraduate students is illustrated by sharper increases from 2009, the year in which the students actively became part of the clusters at SU. The *commuter students* had an average of 70.82% in 2007, and

the improvement continued until 2016 (77.39%). The *residential students* had an average of 70.13% in 2007, which improved to 77.14% in 2011. However, the average for the same students decreased to 75.78% (2012), and started to increase again towards 2016 (77.39%). The average for *all undergraduate* students at SU increased from 70.88% (2007) to an average of 77.29% (2016). Noteworthy is the fact that the averages for the *commuter* and the *residential* students in 2016 (77.39%) were exactly the same. This is particularly significant against the background of the new placement policy that was implemented from 2014 (see Chapter 4) and the support structures in residences, which could have contributed to the improvement of averages of the residential students.

In Table 7.5, the graduation rates of *all final year* students per race in commuter student wards, residences and at SU between 2007 and 2016 are presented.

Table 7.5: SU final year students' graduation rates in commuter student wards, residences and at SU per race, 2007-2016

Graduation rate of all Final Year Students – Commuter student wards (2007-2016)											
Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE
All final year students	77.27	77.71	75.88	76.04	77.25	80.73	82.61	80.47	76.71	80.05	78.47
White	79.03	80.5	77.91	77.57	79.63	82.38	84.32	82.86	78.78	82.11	80.51
Coloured	67.42	64.95	65.24	67.58	68.24	72.15	73.74	70.86	67.8	74.89	69.29
Black	61.76	54.76	54.76	71.79	61.74	70.54	75.00	65.44	70.32	68.4	65.45
Indian	78.79	72.73	82.86	75.00	73.81	93.94	83.87	82.35	80.43	75.00	79.88
Graduation rate of all Final Year Students – SU Residences (2007-2016)											
Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE
All final year students	83.8	84.08	84.14	83.65	84.29	85.57	88.05	83.78	84.72	82.83	84.49
White	86.74	86.63	86.15	86.28	87.47	90.1	90.75	87.91	87.23	87.44	87.67
Coloured	70.00	74.39	76.17	75.38	72.02	73.76	84.66	69.03	78.77	75.36	74.95
Black	73.68	74.00	75.00	74.65	81.36	64.86	72.83	63.33	76.32	68.42	72.45
Indian	57.14	71.43	100	75	33.33	100	92.31	100	100	78.57	80.78
Graduation rate of all final year students at SU (2007-2016)											
Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	AVERAGE
All final years	79.34	79.8	77.98	78.51	78.97	81.86	83.98	81.3	78.65	80.71	80.11
White	81.44	82.69	80.41	80.66	81.4	84.12	85.74	84.1	80.65	83.18	82.44
Coloured	68.83	68.19	68.16	70.02	69.57	72.58	77.29	70.67	70.77	75.00	71.11
Black	70.16	66.87	60.98	69.44	68.18	68.06	74.55	63.9	72.24	68.29	68.27
Indian	75.61	73.68	87.5	76.47	71.11	95.24	86.36	85.37	83.02	76.00	81.04

Source: DIRP (2017)

Over this period, the average graduation rate for *white commuter* students was 80.51%, for *coloured commuter* students 69.29%, for *black commuter* students 65.45% and for *Indian commuter* students 79.88%. The average graduation rate for *white residential* students was 87.67%, for *coloured residential* students 74.95%, for *black residential* students 72.45% and for *Indian residential* students 80.78%. When comparing the average graduation rate of *white students living in residences* to those that *commute*, a significant difference of 7.16% between the groups is noted, with residential students being more successful. The difference between the *coloured students that live in residences* and those that *commute* is somewhat smaller, with residential students more successful with a 5.66% difference in average. The average graduation rates of *black commuter and residential* students also indicate that the residential students are more successful than the commuter students, with a 7.0% difference between the groups. It is clear that in all four race groups, residential students are academically more successful than their counterparts who commute or live in private accommodation. When looking at the students' average success rate in Table 7.5, it is evident that the white students are more successful (82.44%) than the other race groups, and that it takes black students the longest (68.27%) to attain their degree, since they have a lower success rate.

Differences between commuter and residential students' graduation rates are also noticeable. The graduation rates of all commuter, residential and all final year students at SU from 2011 to 2016 are illustrated in Figure 7.15.

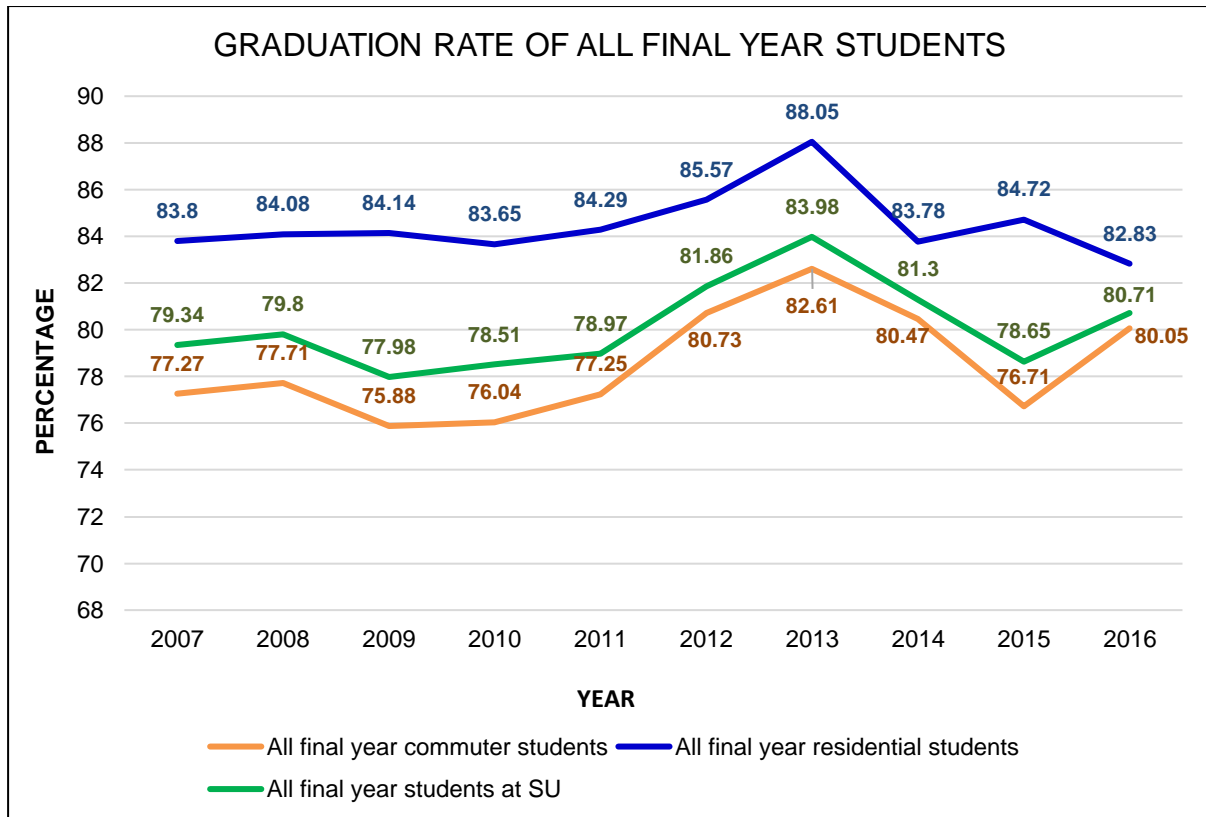


Figure 7.15: SU commuter, residential and all final year students' graduation rates, 2007-2016

Source: DIRP (2017)

Residential students had the highest graduation rate during the period 2007 to 2016. A sharp increase in the graduation rate occurred from 2007 (83.8%) to 2013 (88.05%), followed by a decrease to 2016 (82.83%), which represents the lowest average rate for residential students during this period. On average, over the entire period, commuter students' success rate was 6.02% lower than that of residential students. This illustrates the theory that residential students are academically more successful than commuter students or those living in private accommodation (Chickering, 1974). The difference between the two groups of students has, however, shrunk to 2.78% in 2016, which bodes well for the effect of the cluster initiative that integrates commuter students into learning communities with residential students, and its effect on student academic performance (as discussed in Chapter 2).

7.6 USEFULNESS OF THE HUB AND GENERAL STUDENT SATISFACTION

In response to the open questions, asking respondents about the usefulness of the hub, commuter respondents mentioned other uses of the hub facility, such as attending leadership meetings as well as committee meetings and general house meetings. They also went there to use Maties Wi-Fi, for student events of Equité and Libertas, for mentor and house committee training and to use the bathrooms and showers. The residential respondents indicated that, apart from the above, they also used the facility for Ser²⁵ events, to attend hub meetings and cluster events such as critical engagement discussions and brainstorming sessions, or get-to-know sessions or workshops. The space was also utilized for religious gatherings.

The responses to the closed-ended items on the usefulness of the hub, their satisfaction with the hub and the welcoming feeling of the hub and cluster are presented below.

7.6.1 Usefulness of the hub

The commuter and residential respondents responded to the item on the usefulness of the hub, and whether they were able to use it for practical purposes in several ways. The usefulness ranked by the respondents is seen in Figure 7.16.

²⁵ Ser is short for *serenade*, an important student cultural event that takes place during the first and third terms at SU.

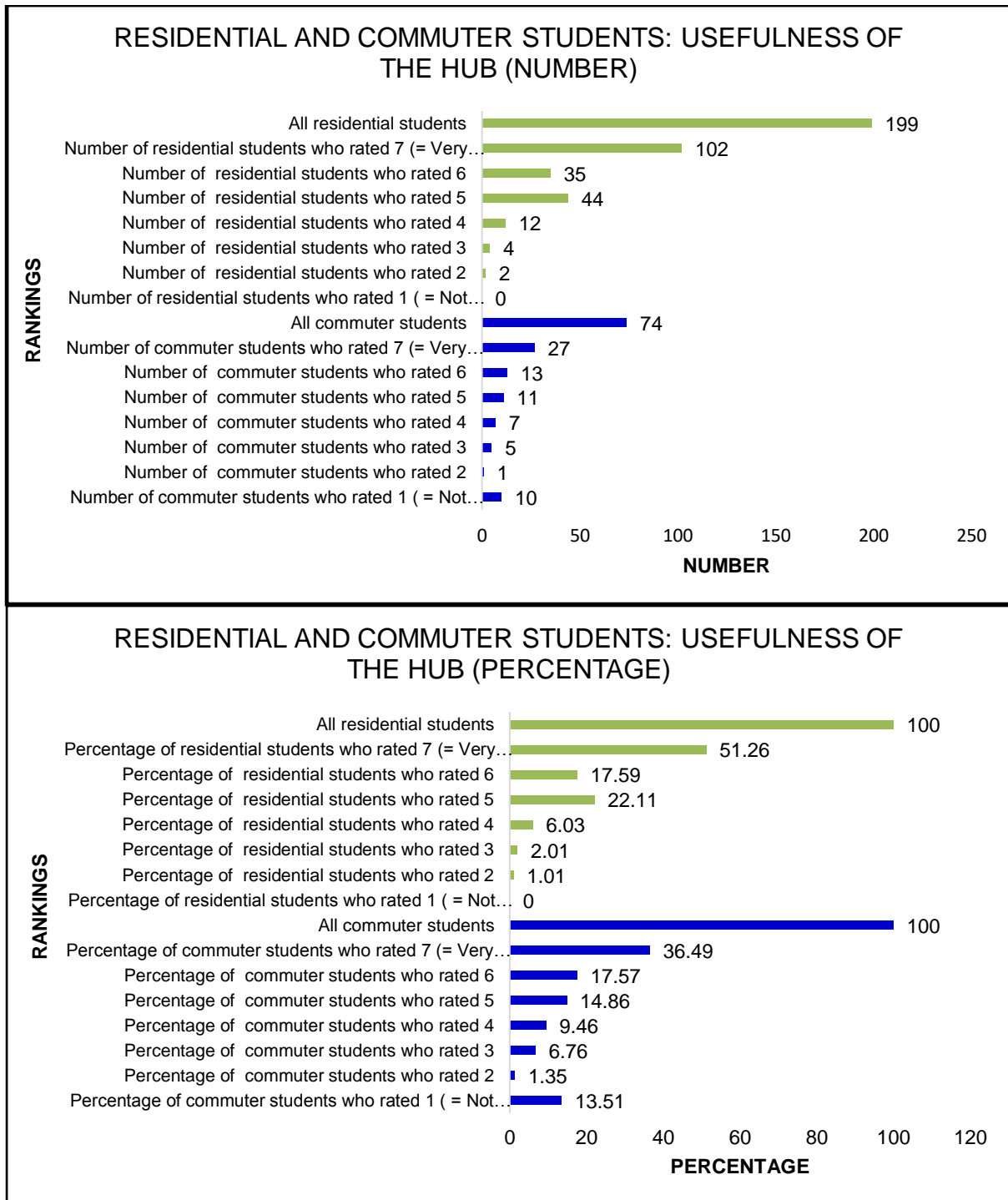


Figure 7.16: Residential and commuter students: usefulness of the hub per number and percentage

The respondents were requested to rate the usefulness of the amaMaties hub from one (not useful at all) to seven (very useful). Of the 273 residential respondents, 129 (47.25%) felt that the hub was very useful, whereas 10 felt that it was not useful at all (3.66%). Reasons why they found it very useful included that it provided them with the

opportunity to not only focus on their studies individually, but that the boardroom allowed for group discussions as well.

The facilities also created opportunities in the co-curricular spaces and in the learning communities where students could meet other students. Respondents mentioned that they wanted to engage with other students who did not form part of their immediate surroundings in residences. The hub also provided a space to have meetings and conversations away from the central student centre on campus, and was regarded as an excellent space for hosting workshops and commuter events.

When students experienced difficulties to go home late at night, due to transport failure or tests written late in the afternoon, they found the backpackers useful for sleepovers. Access was easy and the facilities were open 24 hours of the day, 7 days a week. This provided versatile and convenient opportunities for everyone to make use of the hub and not for a select group of individuals only.

There were, however, a small group of respondents who felt that the hub was not useful (4.44%), or not useful at all (3.66%). The reasons given were that the space was not quiet enough for studying, that the deli was too expensive and that the hub was too far away from central campus. Some respondents did not know that the space catered for such a variety of activities, because they did not participate in the orientation week and was therefore ill-informed.

7.6.2 General satisfaction of the commuter and residential respondents

The respondents were asked to what extent they were satisfied with the hub.

They were requested to rate their satisfaction level from one to seven, one being very dissatisfied and seven very satisfied, as is seen in Figure 7.17. Ratings of four to seven were seen as fairly satisfied to very satisfied and when these are grouped together the vast majority of respondents (265 or 97.07%) felt satisfied, whereas only eight respondents (2.94%) felt dissatisfied to very dissatisfied.

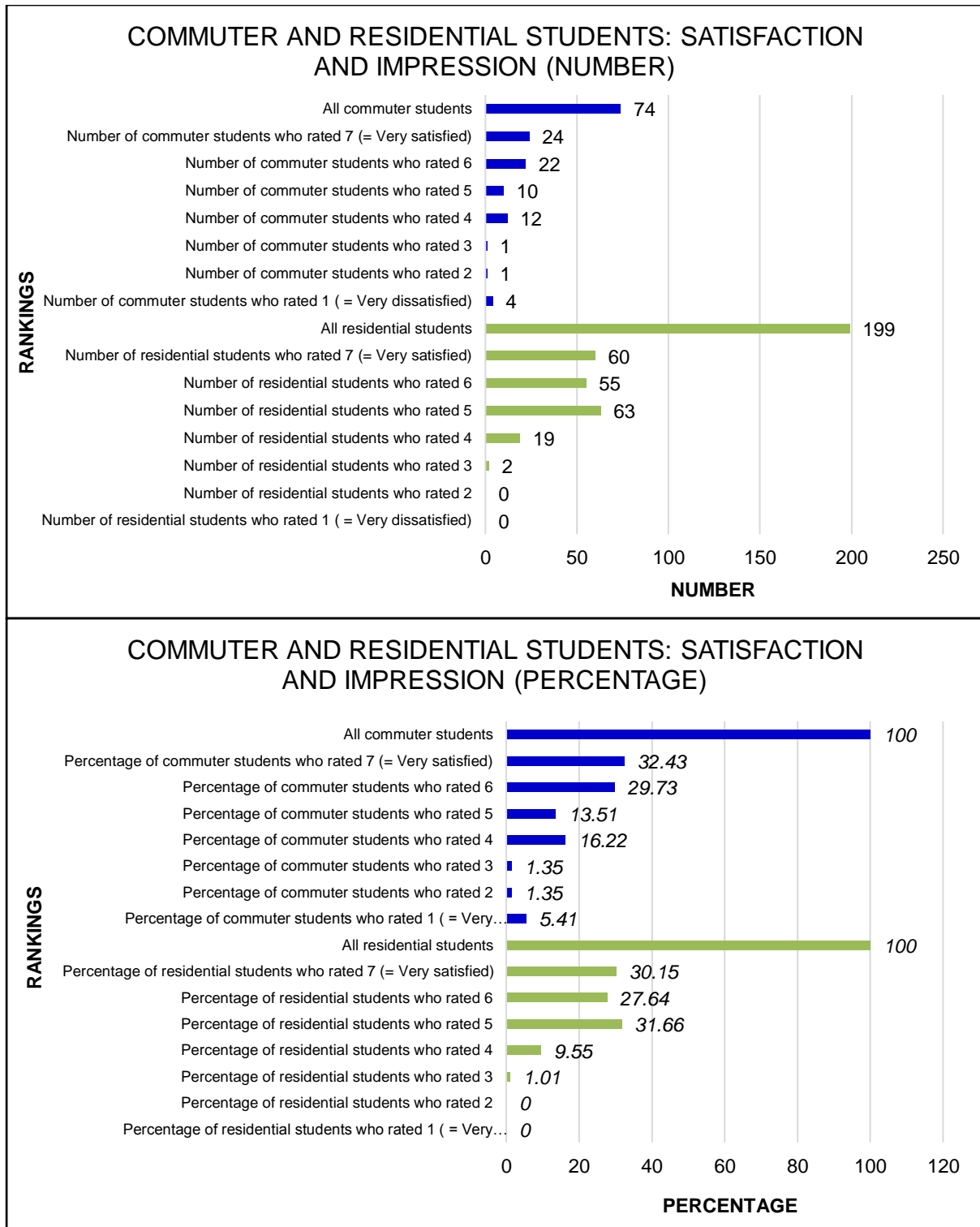


Figure 7.17: General satisfaction of commuter and residence respondents

Reasons why the respondents felt satisfied with the space included that the space was experienced as neat, modern and well maintained, that the basic needs of commuting students were well met and that it was well managed. It was also convenient for students to be able to use the hub through the night when working on assignments or when they needed to study for a big exam.

A respondent commented that:

It has a cosy feeling to it. The slip and slide is a very nice touch. Makes thing[s] not so serious and kind [of] reminds you not [to] take thing[s] so serious.

7.6.3 Welcoming feeling of the hub and cluster

A welcome feeling embraces and expresses appreciation of human beings when they enter a space, a community or an institution (Stevens, 2000). Such a space should provide opportunities where reciprocal comprehension happens, a sense of community (Townley et al., 2013) is experienced, a space shared where all voices can easily be heard, a space where different groups take part in the governance of the community and also where students critically take ownership of the environment (Bryson & Hand, 2007). In this context, the amaMaties commuter and residential respondents were asked to what extent they felt welcome in the hub by rating it from one (not welcome at all) to seven (very welcome). Figure 7.18 summarizes the responses.

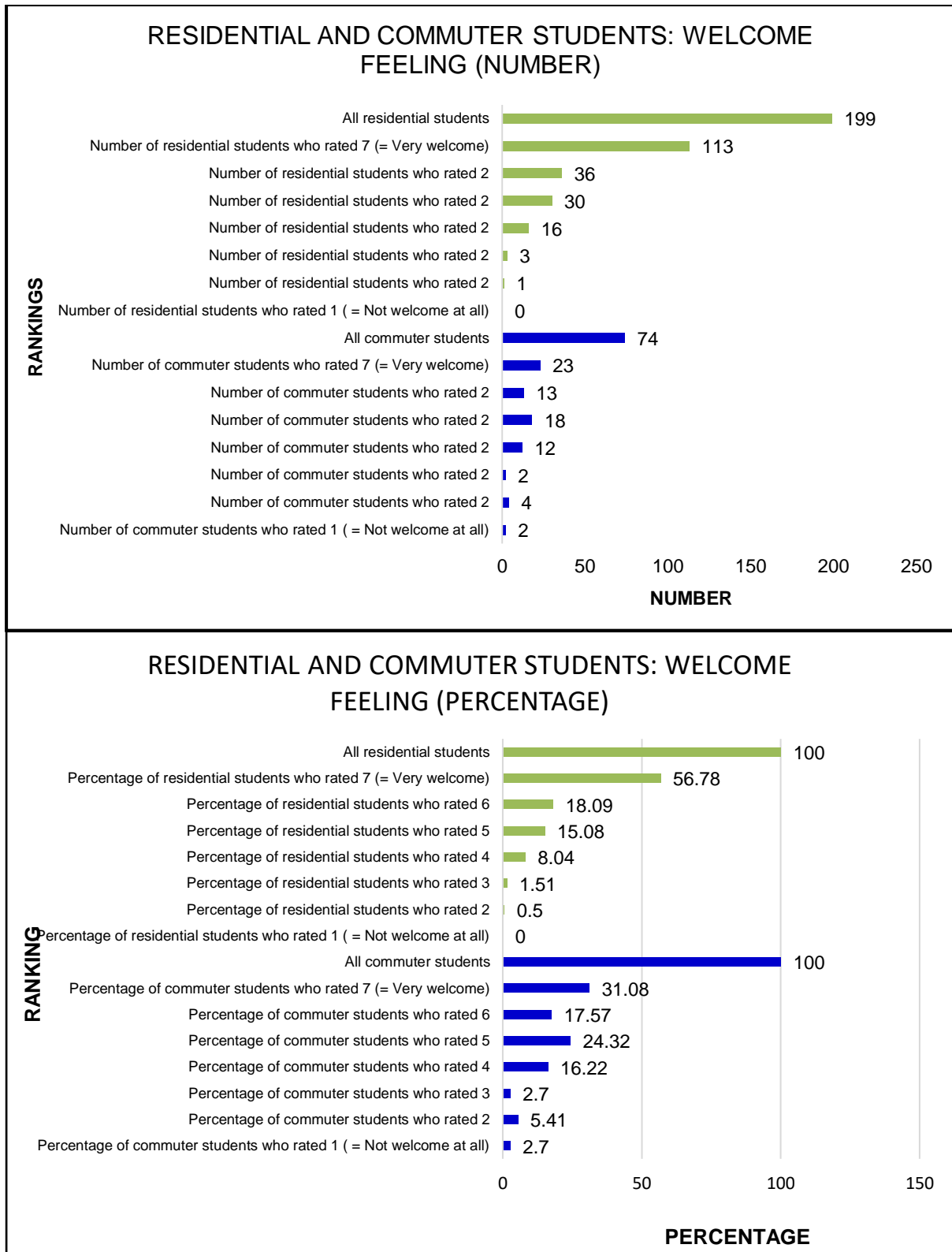


Figure 7.18: Extent to which residential and commuter students experienced a welcoming feeling

Of the 74 commuter students that responded to this item, 89.19% felt fairly welcome (rating 4) to very welcome (rating 7). Some of the reasons that were given for feeling welcome was that the atmosphere was relaxed and that the students and staff were cheerful and very friendly. A respondent also said that:

Everyone who belongs to the Cluster is welcome at the hub which makes it very welcoming and comfortable as there are often people from the different Res[idences] and the two PSOs [commuter wards] that are there and everyone is welcome no matter where you come from.

The respondents saw the space as an inclusive environment for residential and commuter students, because most of their friends were part of the amaMaties cluster.

However, 10.81% of commuter students did not feel welcome (rating 3) or not welcome at all (rating 1). The students who did not feel welcome alleged that there was a divide between the students living in residences and commuter students. The hub further tended to become overcrowded due to its popularity, and when people were studying and others were having a meeting, the ones studying did not appreciate the noise. An unwelcoming feeling was also caused when the student access cards did not work, because students felt awkward to ask someone else to open for them. In this regard it needs to be pointed out that student cards only give access to the facilities when students are enrolled in the amaMaties cluster. If not registered for the cluster, the card reader automatically denies access.

One hundred and thirty six residential respondents (49.82%) rated their experience to be a very welcoming one, whereas another 45.79% felt welcome. Reasons that were given why they felt welcome were, amongst others, that they had easy access, and that the name of their residence was presented on the door. Furthermore, knowing that they were part of the amaMaties cluster, made them feel welcome, at home and like being with family. One respondent explained this as follows:

Everyone is doing their own thing in the hub, too busy studying to even notice anyone come in and you can go sit there in your pj's [pajamas] or slacks and it will be considered normal. I have never felt judged or excluded

there. There is always someone you know. It feels like I belong there and it is an extension of my res[idence].

Many respondents mentioned that the hub provided opportunities to meet everyone in the amaMaties cluster, to catch up with friends during meal times and that no explicit division existed between amaMaties commuter and residential members.

Respondents in the 2017 PSO questionnaire confirmed that the hub and the positive atmosphere created opportunities for commuter students to have someone to speak to or to ask for help, if needed.

Yet, one respondent felt that:

The same people always sit in the conference room making others feel unwelcomed even when they got there first and that [t]here is a division between those that live in residence and those that do not. It results in [an] unwelcome feeling off] those not in residence. Sometimes it feels like the students living in res[idence] are claiming the hub as their property.

The commuter and residential respondents were also requested to explain their general experience of the amaMaties cluster.

7.7 GENERAL EXPERIENCE OF THE AMAMATIES CLUSTER

The majority of commuter and residential respondents were very positive about their experience of the amaMaties cluster, and summarized it as being 'great' and 'welcoming'. It gave them multiple opportunities to meet a variety of people of other residences. They also indicated that they enjoyed participating in cluster events and socializing with fellow cluster members. A respondent said that:

It's a welcoming cluster. The hub has helped to provide a space for those in the cluster to interact. Once you know others in the cluster and relationships are formed, it becomes easier to find others who study what you study and who will help you with work. Ultimately, it has provided a good support system for me during my time studying at Stellenbosch.

Some respondents remarked that it is friendly, efficient and very well organised, because the people involved with the organisation of the cluster put a lot of effort into it.

Respondents commented that they enjoyed the sense of community within the cluster and that they appreciated the fact that the university was taking active steps to care for all its students; this contributed to them feeling part of the bigger SU student body. Since the purpose of the cluster is to integrate commuter and residential students socially and academically, these comments underscored that the hub and cluster were delivering the expected outcomes.

Respondents mentioned that the cluster hosted seminars on various topics that benefited the students in terms of university life and life beyond university. One respondent specifically focused on the value added by the cluster in developing graduate attributes:

It has been a cluster that has helped me develop as a human being and played its part in forming my leadership capabilities. I have so many support within the borders of our Cluster, whether it be in [S]erruria, [N]emesia, Erica, [E]quit[é], [L]ibertas, Neethling House, [O]sler, [H]elderberg – I am just so blessed to be in the amaMaties Cluster. It is not the structures that makes the Cluster, it is the people within it.

Respondents also mentioned that the cluster provided an opportunity to form an extended friendship circle and that they felt as if they had become part of a bigger community, because amaMaties cluster was their 'home'. It made their transition from school to university easier, helped them in their studies and contributed to their well-being.

A respondent who moved from one commuter student ward to another, reported her experience as follows:

I was in Silene the previous year but then didn't decide to study. This year I was signed to Equité. Silene didn't have a hub so we had the sleep over at the sport club. The club is so far from the actual house. Having a hub makes thing[s] so much easier and convenient. Especially when you [a] first year

and don't know where what is and have to run around figuring out where you have to go. The hub and the [house committee] house is at the same place so this makes running around not happen as often. Equité is so much more organised. I don't know if I was just lucky to get the best mentor, but she was so helpful. From second-hand books to just genuinely caring. The Equité week is also much more fun and interesting.

Some suggestions for improvement were also made. A number of respondents mentioned that the cluster should do more together, as a cluster, whether involving socials, community work or just talks, and that they needed even more activities during which they could get to know one another. Some respondents indicated that they did not feel catered for, because they travelled by train and when the cluster group was having activities or meetings, they could not make it because they had to catch a train. They also complained that some of the events were advertised too late or were disorganised. Communication, therefore, needs to be addressed. Complaints were also raised about students who were not in the cluster coming to study in the hub, thus taking up the space of the amaMaties' students.

When asked what would motivate the commuter non-users to use the hub, respondents indicated that the facility is too far to visit during short breaks between classes, that it can become noisy and that they needed a quiet space without distractions to study, and lastly that a shuttle service to and from the hub at night should be made available.

From both the quantitative and qualitative responses of the students who participated in the survey, it transpired that the outcomes of the Logic Model were achieved to a significant extent (this will be elaborated upon further in Chapter 8). What is particularly noticeable is the extent to which students experienced a sense of community in the hub and cluster. For a deeper understanding of these research results, they were also interpreted according to Astin's I-E-O model (see 5.3.1.1) and Theory of Involvement (see 5.3.1.2).

7.8 THEORETICAL INTERPRETATION OF RESEARCH RESULTS

7.8.1 Interpreting commuter students' responses according to Astin's I-E-O Model

An adaptation of Astin's (1993a) Input-Environment-Outcome (I-E-O) model was applied in assessing the effectiveness of the amaMaties hub and cluster initiative. The *input* variable refers to the variety of backgrounds from which the respondents who participated in the survey on the amaMaties hub and cluster came. More female than male respondents participated, whereas more white commuter respondents, than coloured, black and Indian respondents participated in the survey. The *environment* influenced the commuter respondents in various ways. Because they felt welcome and included in the community and because they experienced the hub as a safe, neat and well-organised facility with a fun atmosphere, they frequented the facility and started to participate in study groups and mentor groups, and formed new friendship groups within the cluster. Their basic needs were fulfilled and the hub also gave them the opportunity to relax with friends (social needs). The *outcomes* showed an improvement in academic performance when comparing the averages and graduation rates over the past ten years. According to respondents' comments, graduate attributes were also acquired.

This model therefore enhanced the researcher's understanding of the 'cause and effect' of the hub and cluster initiative. This interpretation demonstrates that students and student performance are affected not only by the curricular environments, but also by the co-curricular environments. The study furthermore demonstrates that the co-curricular environment can have a positive effect on students' attitudes and personal development. This supports Astin's view of excellence, namely that the quality and quantity of student learning and development happen in both spheres of learning. The positive effect of the hub and cluster initiative is illustrated even more vividly when interpreting the research results according to Astin's Theory of Involvement.

7.8.2 Interpreting residential students' responses according to Astin's Theory of Involvement

Astin's Theory of Involvement illuminates how both residential and commuter students' experience of the university was enhanced through what they did in the co-curricular environment (Astin, 1984). Furthermore, these experiences contributed to their academic success. The respondents agreed that the hub was mostly used to study either alone or in groups and to relax or eat with friends while taking study breaks. The facility gave them the opportunity to study until late, because no time limits which could prevent them from studying were applicable. Students that experienced difficulties with academic work could, in this space, relate with their peers to figure out the challenges.

By grouping the residences and commuter wards into clusters, the campus was reorganized into learning communities that enhanced the academic experience of both groups. The time and the energy that students spend on their academic work, according to Astin's theory, is strongly influenced by student peers. The data gathered from the respondents in the hub indicated that they were motivated by their fellow students when they saw them studying and felt guilty when they operated their mobile devices instead of studying. The residential students also indicated that they got distracted in their rooms and were more motivated to study when they did so in the hub.

The respondents' motivation and behaviour indicated that the more they participated in learning and activities in the cluster, the more student learning and personal development occurred. It was useful to evaluate the degree to which this initiative and hub also contributed to the involvement of the residential students, because it became apparent that the hub and cluster motivated and encouraged them to become even more involved in their university experience (Astin, 1984).

7.9 CONCLUSION

Chapter 7 highlighted the most important qualities of the commuter and residential respondents of the amaMaties cluster at SU, and reported on the data that was collected to evaluate the hub and cluster. The degree to which the commuter students felt welcome and satisfied, and the general experience of the commuter and residential

respondents in the cluster, were demonstrated by the data. The usefulness of the facilities and how the commuter and residential respondents utilized the facilities and participated in the student community, as well as the effect on student performance, were also illuminated.

The final chapter will summarize what the research found, how the research objectives were achieved and to what extent the outcomes were accomplished. It will also highlight implications for policy, practice and further research.

Chapter 8

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

This chapter summarizes the main findings and conclusions of the study. It draws conclusions from the investigation that aimed at determining the effect that the amaMaties hub and the cluster had on commuter students (Libertas and Equité students²⁶), to what extent it addressed their needs, whether the facilities provided were utilized, and if it contributed to the development of learning communities. The chapter further reflects on the similarities and dissimilarities between the involvement in the hub and cluster on the one hand and, on the other hand, the academic performance of commuter and residential respondents. The conclusions are drawn from the data generated by the self-administered questionnaire that was discussed in Chapter 7, and from the literature reviewed in Chapters 2, 3, 4 and 5.

Program evaluation was adopted as the research design. In this study, program evaluation created the opportunity for the researcher to utilize her research skills and practical experience in a complementary way in order to evaluate whether the facilities and services provided really did help the respondents (commuter students) in ways they were intended for, and to reach the objectives (Logan et al., 2006, p. 1) as discussed in Chapter 6. Evaluation studies can also inform higher education institutions (in this case SU) when administrative and strategic decisions have to be made about such initiatives. The objectives of this study, aligned to the outcomes of the Logic Model of the hub and cluster initiative, guided the researcher to determine whether the initiative was indeed effective. The researcher found program evaluation to be suitable for investigating this change initiative and believes that, when change initiatives in higher education institutions are being implemented, the institutions can

²⁶ Libertas refers to the male commuter ward and Equité to the female commuter ward in the amaMaties cluster.

benefit from using program evaluation to evaluate the outcomes. The outcomes of the Logic Model are discussed below.

8.2 OUTCOMES OF THE LOGIC MODEL

In Chapter 6, a Logic Model was presented to better understand the relationship between the goals, activities, resources, outputs, outcomes and impact of the amaMaties hub and cluster for commuter students. This study focused only on the outcomes of the Logic Model, and the researcher's conclusions on the extent to which the outcomes were achieved, will be briefly discussed.

In line with a student population that is becoming increasingly more diverse, due to widening access and associated increase in enrollments and participation (Smith, 2016), it was observed that the diversity of respondents in this study represented the racial profile of undergraduate students at SU. The diversity of the student population in the amaMaties cluster was enhanced by the 2014 residence placement policy which led to an increase in numbers of under-represented groups and a decrease in white student numbers, demonstrated in Figure 7.4.

The study found that significant interaction between commuter and residential respondents occurred in the learning community of the hub. Many of the commuter respondents indicated that they used the hub to work in study groups, because of the atmosphere being conducive for studying and the opportunities to learn from one another. More commuter respondents than residential respondents used the space for mentor sessions, because it provided the commuter respondents with a place for mentors and mentees to meet.

The worldwide pressure on student throughput has put the academic experience and success of commuter students under the magnifying glass, because various research studies, including this study, have shown that undergraduate residential students perform academically better than undergraduate commuter students. Academic success is thus related to living on campus (Long, 2014). The respondents in this study indicated that they used the hub mostly to study on their own – this was ranked the highest among all reasons for visiting the hub – which, together with their participation in formal and informal study groups mentioned above, could have contributed to the

improvement in academic performance and graduation rates that the data revealed, as discussed under 7.4.3. The data showed that amaMaties undergraduate commuter students achieved a gradual improvement of average percentages since the establishment of the hub in 2009. Comparisons according to race showed interesting differences: the white *commuter* and *residential* students shared the same average, the coloured and Indian *commuter* students did academically better than their residential counterparts, but the black *residential* students did better than the black *commuter* group.

Taken over the ten year period of 2007 to 2016, the overall graduation rates of the *residential* students still exceeded the rates of the *commuter* students, especially in the case of black and coloured students who lived in residences. The white and Indian students were academically more successful than the coloured and black students, who took longer to complete their degrees. However, the gap between the residential and commuter students' success rates had narrowed significantly over the past ten years, which supports the notion of the integration of commuter and residential students into academic and social communities within a cluster to enhance their academic experience and success.

In addition to academic benefits, socialization also played an important part in the hub and cluster. Within this learning community (amaMaties cluster), commuter respondents took advantage of the opportunity to socialize, eat and relax with friends. This gave them the opportunity to make new friends and to talk to students of different races and genders as well as to students of their own residences or commuter wards whom they did not know previously. The inclusive and friendly environment also gave respondents the opportunity to interact with students who were studying in the same field of study, whether they were first-years, second year students or seniors. This created a valuable support system in the learning community.

The aim and objectives of the study will be discussed next.

8.3 AIM AND OBJECTIVES OF THE STUDY

The research aim of the study (discussed in Chapter 1) was to determine what effect the amaMaties hub and the cluster had on commuter students, the extent to which

their needs were addressed and if this facility contributed to the development of student learning communities.

In order to achieve this aim, the following objectives were set for the study:

- to determine to what extent the facilities were being utilized by commuter and residential students;
- to determine if it fulfilled the basic needs of the commuter students;
- to determine if the commuter and residential students participated in learning communities (study, tutor and mentor groups);
- to determine to what extent social interaction among commuter and residential students was promoted;
- to determine if the academic experience and success of commuter students were enhanced.

How these objectives were met were discussed in detail in Chapter 7 and therefore only the broad trends that emanated from the analysis will now be highlighted.

8.3.1 Utilization of facilities by commuter and residential students

According to the data derived from the questionnaire, more residential respondents than commuter respondents were aware of the location of the hub, and similarly paid more visits to the hub. However, during the first term, the commuter respondents visited the hub more frequently than the residential respondents. This can be related to the orientation program that took place at the start of the first term. The second and fourth terms are known as the 'academic' terms, because the mid-year and the final exams of the academic year occur during these two terms. The least visits were paid to the hub during the third term, because many social activities (e.g. dances) are usually scheduled during this term.

8.3.2 Addressing the basic needs of commuter students with regard to meals, safety, rest and relaxation

When determining if the needs of the commuter respondents had been addressed, the respondents indicated that the meal offering at the dining hall was not used as frequently as was expected. More residential respondents used the meal offerings,

which can be a direct result of bursaries that include meals and thus making it easier for residential students to book a meal, whereas commuter respondents rather bring food from home or prepare food at their flats. The payment of the expensive administration fees to book meals at the dining hall prevented most of the commuter respondents to eat or book meals there. The deli proved to be more popular because, when students forgot to book meals at the dining hall, they could easily buy food at the deli with their student cards.

The space was further recognized as safe and secure, because they felt at ease to leave their personal belongings unattended. Notices of lost-and-found goods demonstrate this behaviour. This created a sense of connection (Stevens, 2000) and respect for one another in the cluster.

With regard to relaxation, the respondents also used the other facilities in the cluster village more often than the hub itself, because most of the commuter and residential respondents regarded the hub itself as an excellent space to study – either alone or in groups. The majority of the commuter respondents indicated that they felt familiar and welcome in the space, because it created opportunities where they could meet with diverse commuter and residential students and therefore they did not feel excluded.

8.3.3 Participation in learning communities (study, tutor and mentor groups) in the hub

Respondents found it easy to interact with fellow students in the cluster across faculties and year groups. The commuter respondents engaged with their learning in several ways, whereas first-year respondents were guided by their mentors in the hub. The facility was mostly visited to study alone, but a number of the respondents worked together in groups, which made it easier for them to connect with students that were studying the same courses. The more they visited the hub, the more familiar the faces became and as a result they did not find it awkward to pose questions to someone who was studying the same course.

Commuter respondents met with their mentors in the hub more frequently than the residential respondents, and they indicated that academic, social and emotional support in the space were valuable to them. By engaging in mentor or study groups in

the cluster, commuter respondents indicated that they were given the opportunity to acquire new skills such as time management, as well as new study methods (by working on their own and by working with others). Although mentor groups were important to commuter respondents because these groups created connections between first year respondents and their mentors, the researcher is of the opinion that the first year respondents could have used the opportunity to meet with their mentors more frequently.

The respondents reported that the cluster helped them academically, as it provided a variety of academic support platforms. It can be concluded that using the hub and being in the amaMaties cluster made interaction with other people (commuter and residential students) more convenient and also more fun for commuter students, and that being part of the cluster motivated them to become more engaged in terms of academics, social interaction and participation in cluster activities. The support given by mentors to first-years also contributed positively in facilitating their transition from school to university.

8.3.4 Promotion of social interaction among commuter and residential students

As discussed in Chapter 5, student involvement is positively related to student success (Kuh et al., 2011). Research on student engagement has emphasized that involvement, which has an important influence on student success and retention, matters the most during the first and second year of study (Astin, 1984; Kahu, 2013; Newbold et al., 2011; Tinto, 2006). Kahu (2013, p. 759) importantly pointed out that student engagement does not only result from appropriate teaching practices and student behaviours, but also from the time that students invest in learning and from their social and academic integration.

More than 60% of commuter respondents were using the space to socialize, whereas less than 40% of residential respondents used it to socialize. This is a clear indication that commuter students need a space on campus during the day to socialize, while residential respondents mostly use their residences for this purpose.

However, when meetings and events were organised at inconvenient times during the day, or when no parking was available, commuter respondents did not participate. Poor communication, according to some of the respondents, was another reason for not visiting the hub or for not participating in activities and events in the cluster. The respondents argued that they would have been more involved if the communication was more informative and timeous.

8.3.5 Enhancing the academic experience and success of commuter students

Both commuter and residential respondents gave the highest ranking, in terms of utilization of the facilities, to studying in the hub. Respondents indicated that they appreciated the academic atmosphere of the hub when everybody were studying together, particularly during peak academic times such as exams, which shows that learning did happen in the space.

Improvement in the academic performance of all race groups was demonstrated from the start of the cluster initiative (2009) up to the time of the survey (2016). A noteworthy fact was that the full-year weighted averages, as a percentage of the Grade 12 marks for commuter and residential students, were exactly the same in 2016. However, the graduation rates showed that, with a small margin, more residential students were still graduating in their final year than the commuter cohort, who took longer to attain their degrees.

8.4 CONTRIBUTIONS OF THE STUDY

Internationally and nationally higher education institutions are faced with challenges of growing numbers of enrolments and fiscal constraints, resulting in smaller proportions of the student population being accommodated in student residences. Yet, residential students are generally more engaged and perform better academically than commuter students. Thus, ways should be found to approximate the residential experience for commuter students. One such initiative is the amaMaties hub and cluster at SU. The researcher found that the hub had a significantly positive effect on the experience and sense of belonging of commuter students. They not only felt welcome in the space, but also found it a very useful facility in a number of ways.

In addition, the cluster village and hub also largely contributed to spontaneous interaction across race and gender differences of commuter and residential students in the amaMaties cluster. Among those students who frequented the facilities, numerous relationships were built and in some cases lifelong friendships were formed. The general sense of 'not being judged' and of acceptance promoted relationships across different races, cultures, language groups and genders.

Unexpectedly, the research also revealed the changes that occurred in the traditionally insular residential communities, particularly around their views of and openness to change and to inviting commuter students into their study areas and dining halls, which did not happen previously. At SU, residential students operated to a large extent in silos, keeping 'other' students out of their residences, traditions and activities. This study shows an 'opening up' of these boundaries by the residential students in the cluster to invite commuter students into their spaces.

Whereas the hub and cluster initiative certainly benefited commuter students in terms of addressing their basic needs, promoting their academic involvement in the out-of-class environment and enhancing their sense of belonging, the benefits of regular interaction with a wider variety of people stretched further than just the commuter students of the amaMaties cluster. Both commuter and residential students benefited from the cluster initiative and hub, because they experienced the space as a learning community. This means that students learnt from 'the other', across boundaries, hence enhancing their student experience.

8.5 LIMITATIONS

The study was done in the field of Higher Education. It had a number of limitations that need to be acknowledged.

- The study was conducted at only one institution, Stellenbosch University (SU). Because of its particular history, SU is not regarded as a typical South African university, particularly regarding the composition of its student population. Furthermore, the study was conducted in only one cluster of SU, the amaMaties hub and cluster. The results of the study are therefore not necessarily generalizable.

- Limited literature was available on commuter students in South Africa and therefore no comparisons could be made with national trends or with other institutions.
- Only a small number of tertiary institutions responded to the researcher's emails and phone calls to gather information about the processes they had in place to accommodate their commuter students and whether they had programs to address the needs of such students.
- The research was done two weeks before the end of the term and prior to the final November exam. This might have had an influence on the respondents' perceptions and attitudes.
- The response rate of 11.27% was disappointingly low.
- The open-ended questions that generated the qualitative data could have been more specific in order to measure the impact of the amaMaties hub and cluster initiative as well.

While acknowledging the above-mentioned limitations, the study did lead to a number of recommendations for policy, practice and future research.

8.6 RECOMMENDATIONS

8.6.1 Policy

Recommendations with regard to policy are made at national, institutional and divisional level.

- Infrastructure grants from the Department of Higher Education and Training to higher education institutions should make provision not only for residences, but also for the development of facilities (such as the amaMaties hub) for commuter students.
- Specific guidelines should be provided to higher education institutions as to what this type of facility entails, in order to better provide for commuter students.
- Higher education institutions should assess their current infrastructure and determine in which practical ways better provision could be made for their commuter students.

- Student Affairs divisions at higher education institutions should include a clear focus on better integration of commuter students into campus communities in their vision and strategy.

8.6.2 Practice

- The results of this formative evaluation should be disseminated to the relevant decision-makers at Stellenbosch University and should be used in future planning.
- The hub and cluster initiative at SU should be continued and expanded. This implies making available the required funds for the development of new hubs in annual budgets.
- Additional facilities such as laundry services, computer facilities, a bicycle lock-up area, and a shuttle service to the hub, requested by respondents, should be considered.
- The results of the research should be shared with other institutions in South Africa in order to inform them about possible ways to better serve their commuter students.

8.6.3 Proposals for further research

It is important to gain more knowledge about this topic and therefore further research is necessary.

The researcher proposes that:

- a longitudinal study be done to determine the impact of the hub and cluster initiative;
- more in-depth investigations be done by means of, for example, focus groups and interviews with students and alumni to investigate some unanswered questions;
- a comparison between the outcomes of the amaMaties and Wimbledon (the second hub at SU) hubs and clusters be done;
- further comparative research be done on academic performance of residential and commuter students;

- more specifically, further investigation be done on why coloured and Indian commuter students, over the ten-year period, did significantly better than their counterparts living in residences;
- the self-generated questionnaire needs to be improved and standardized before implementation at other hubs or higher education institutions in order to strengthen the validity and reliability of the results.

8.7 CONCLUSION

Mertens (2014, p. 48) stated that “[c]onclusions made in evaluations encompass both an empirical aspect (that something is the case) and a normative aspect (judgment about the value of something)”. In this study, the researcher could come to the conclusion that the amaMaties hub and cluster had met the stated outcomes of the initiative (empirical aspect) to a large extent, but could furthermore also conclude that the hub and cluster had positively affected the student experience of both commuter and residential students (normative aspect). It demonstrates a novel approach to holistic commuter student engagement and development within the South African higher education context, and as such provides guidelines to student affairs practitioners at other South African universities.

REFERENCES

- ACUHO-I SAC. (2010). *Report of the ACUHO-I SAC student housing African summit*. (unpublished report)
- Addai, I. (2015). The predicaments of non-residential students in Ghanaian institutions of higher education: A micro-level empirical evidence. *Journal of Education and Practice*, 6(1), 110-118.
- Alfano, H., & Eduljee, N. (2013). Differences in work, levels of involvement, and academic performance between residential and commuter students. *College Student Journal*, 47(2), 334-342.
- Allen, W. R., & Haniff, N. Z. (1991). Race, gender, and academic performance in US higher education. *College in Black and White: African American students in predominantly White and in historically Black public universities*, Albany NY: SUNY Press, 95-109.
- Altbach, P. G. (2015). Globalization and forces for change in higher education. *International Higher Education*. Retrieved from <http://ejournals.bc.edu/ojs/index.php/ihe/article/download/6593/5814>
- Alvarez, P., Johnson, D. R., Inkelas, K. K., Soldner, M., Leonard, J. B., Rowan-Kenyon, H. T., & Longerbeam, S. D. (2007). Examining sense of belonging among first-year undergraduates from different racial/ethnic groups. *Journal of College Student Development*, 48(5), 525-542.
- Astin, A. W. (1975). *Preventing students from dropping out*. San Francisco: Jossey-Bass.
- Astin, A. W. (1977). *Four critical years. Effects of college on beliefs, attitudes, and knowledge*. ERIC.
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25(4), 297-308.
- Astin, A. W. (1985). *Achieving educational excellence: A critical analysis of priorities and practices in higher education*. San Francisco: Jossey-Bass.
- Astin, A. W. (1993a). *Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education*. Phoenix: Oryx Press.
- Astin, A. W. (1993b). Diversity and multiculturalism on the campus: How are students affected? *Change: The Magazine of Higher Learning*, 25(2), 44-49.
- Astin, A. W. (1993c). *What works in college? Four critical years revisited*. San Francisco: Jossey-Bass.
- Astin, A. W. (2012). *Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education* (Slesinger, S. Ed. Second ed.): Lanham, MD: Rowman & Littlefield Publishers.
- Babbie, E., & Mouton, J. (2002). *The practice of social research*. Cape Town: Oxford University Press.
- Babbie, E. R. (2013). *The practice of social research*. Boston, MA: Cengage Learning.
- Baker, D. P. (2015). Mass higher education and the super research university. *International Higher Education*(49). Retrieved from <https://ejournals.bc.edu/ojs/index.php/ihe/article/viewFile/7991/7142>
- Barr, N., & Crawford, I. (1998). Funding higher education in an age of expansion. *Education Economics*, 6(1), 45-70.
- Barrie, S. C. (2007). A conceptual framework for the teaching and learning of generic graduate attributes. *Studies in Higher Education*, 32(4), 439-458.

- Barth, M. (2014). *Implementing sustainability in higher education: Learning in an age of transformation*. London: Routledge.
- Bartram, P. (1993). Review of What Matters in College? Four Critical Years Revisited. *Canadian Journal of Higher Education*, 23(1), 133-136.
- Baumert, S. C. (2014). *University politics under the impact of societal transformation and global processes: South Africa and the case of Stellenbosch University, 1990-2010*. Stellenbosch: Stellenbosch University. (Unpublished doctoral dissertation.)
- Bennett, S. (2007). First questions for designing higher education learning spaces. *The Journal of Academic Librarianship*, 33(1), 14-26.
- Bennett, S. (2011). Learning behaviors and learning spaces. *portal: Libraries and the Academy*, 11(3), 765-789.
- Berger, J. B., & Milem, J. F. (1999). The role of student involvement and perceptions of integration in a causal model of student persistence. *Research in Higher Education*, 40(6), 641-664.
- Bettinger, E. P., & Long, B. T. (2009). Addressing the needs of underprepared students in higher education does college remediation work? *Journal of Human Resources*, 44(3), 736-771.
- Bickman, L., & Rog, D. J. (2008). *The SAGE handbook of applied social research methods*. Thousand Oaks, California: SAGE publications.
- Bitzer, E. M. (2009a). Academic and social integration in three first-year groups: A holistic perspective. *South African Journal of Higher Education*, 23(2), 225-245.
- Bitzer, E. M. (ed) (2009b). *Higher education in South Africa: a scholarly look behind the scenes*. Stellenbosch: SUN MeDIA.
- Bitzer, E. M., & Troskie-De Bruin, C. (2004). The effect of factors related to prior schooling on student persistence in higher education. *South African Journal of Education*, 24(2), 119-125.
- Bloomquist, E. S. (2014). Developing a sense of belonging for commuter students: A Mixed Methods Study. *Educational Administration: Theses, Dissertations, and Student Research*. Paper 177, 94. Retrieved from <http://digitalcommons.unl.edu/cehsedaddiss/177>.
- Boshoff, N., James, M., Mouton, J., & Treptow, R. (2010). *Survey of the out-of-class experiences of Stellenbosch University students*. Centre for Research on Science and Technology (CREST), Stellenbosch University.
- Botha, A. (ed) (2007). *Chris Brink: Anatomie van 'n omvormer*. Stellenbosch: AFRICAN SUN MeDIA.
- Botha, L., Cilliers, C., & Kloppers, P. W. (2011). *Integrated learning communities*. Student Affairs, Stellenbosch University.
- Botha, L., & Kloppers, P. W. (2014). *'n Verslag oor besoeke aan vyf universiteite en bywoning van 'n internasionale kongres in die Verenigde Koninkryk (VK)*. Student Affairs, Stellenbosch University.
- Botman, H. R. (2010). *Afrikaberaad oor studentehuisvesting*, Stellenbosch University.
- Boughey, C. (2003). From equity to efficiency: Access to higher education in South Africa. *Arts and Humanities in Higher Education*, 2(1), 65-71.
- Braxton, J. M., Hirschy, A. S., & McClendon, S. A. (2011). Student departure in commuter colleges and universities. *Understanding and reducing college student departure*, 30(3), 35-51.
- Braxton, J. M., Milem, J. F., & Sullivan, A. S. (2000). The influence of active learning on the college student departure process: Toward a revision of Tinto's theory. *Journal of Higher Education*, 71(5), 569-590.

- Brint, S., & Karabel, J. (1989). *The diverted dream: Community colleges and the promise of educational opportunity in America, 1900-1985*. Cape Town: Oxford University Press.
- Brower, A., Inkelas, M., & Kurotsuchi, K. (2010). Living-Learning Programs. *Liberal Education*, 96(2), 36-43.
- Bryman, A. (2015). *Social research methods*. Cape Town: Oxford University Press.
- Bryman, A., & Cramer, D. (1999). *A guide for social scientists*. London & New York: Taylor & Francis Group.
- Bryson, C., & Hand, L. (2007). The role of engagement in inspiring teaching and learning. *Innovations in Education and Teaching International*, 44(4), 349-362.
- Bundy, C. (2004). *Global patterns, local options? Changes in higher education internationally and some implications for South Africa*. Pretoria: Council on Higher Education.
- Bunting, I. (2006a). The higher education landscape under apartheid. <https://chet.org.za/download/file/fid/90>.
- Bunting, I. (2006b). Students. In: *Transformation in higher education. Global pressures and local realities in South Africa*. Cape Town: Centre for Higher Education Transformation, (95-121). Retrieved from www.chet.org.za.
- Burlison, M. B. (2015). Nonacademic commitments affecting commuter student involvement and engagement. *New Directions for Student Services*, 2015(150), 27-34.
- Cabrera, A. F., Nora, A., & Castaneda, M. B. (1993). College persistence: Structural equations modeling test of an integrated model of student retention. *The Journal of Higher Education*, 64(2), 123-139.
- Carini, R. M., Kuh, G. D., & Klein, S. P. (2006). Student engagement and student learning: Testing the linkages. *Research in Higher Education*, 47(1), 1-32. doi:10.1007/s11162-005-8150-9
- CHE. (1999). *Annual report 1998*. Pretoria: Council on Higher Education.
- CHE. (2012). *VitalStats: Public higher education, 2010*. Pretoria: Council on Higher Education.
- CHE. (2013). *A proposal for undergraduate curriculum reform in South Africa: The case for a flexible curriculum structure*. Pretoria: Council on Higher Education. Retrieved from www.che.ac.za
- CHE. (2016a). *Annual report 2015/2016*. Pretoria: Council on Higher Education.
- CHE. (2016b). *Institutional feedback report*. Pretoria: Council on Higher Education.
- CHE. (2016c). *South African higher education reviewed: two decades of democracy*. Pretoria: Council on Higher Education.
- CHE. (2016d). *VitalStats: Public higher education, 2014*. Pretoria: Council on Higher Education.
- CHE. (2017). *VitalStats: Public higher education, 2015*. Pretoria: Council on Higher Education.
- CHET. (2010). *Performance indicators in South African higher education 2000-2008*. Cape Town: Centre for Higher Education Transformation.
- Chickering, A. W. (1974). *Commuting versus resident students: Overcoming the educational inequities of living off campus*. San Francisco: Jossey Bass.
- Chickering, A. W., & Gamson, Z. F. (1987). Seven principles for good practice in undergraduate education. *AAHE bulletin*, 3, 7.
- Chickering, A. W., & Gamson, Z. F. (1999). Development and adaptations of the seven principles for good practice in undergraduate education. *New Directions for Teaching & Learning*, 1999(80), 75.

- Chowdry, H., Crawford, C., Dearden, L., Goodman, A., & Vignoles, A. (2013). Widening participation in higher education: analysis using linked administrative data. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 176(2), 431-457.
- Clark, M. R. (2006). Succeeding in the city: Challenges and best practices on urban commuter campuses. *About Campus*, 11(3), 2-8.
- Clark, N. L., & Worger, W. H. (2011). *South Africa: The rise and fall of apartheid*. Cape Town: Pearson Education.
- Clark, N. L., & Worger, W. H. (2016). *South Africa: The rise and fall of apartheid*. (2nd edition). London: Routledge.
- Cleveland, B., & Fisher, K. (2014). The evaluation of physical learning environments: A critical review of the literature. *Learning Environments Research*, 17(1), 1-28.
- Cloete, N. (2004). *National policy & a regional response in South African higher education*. Suffolk, East Anglia: James Currey Publishers.
- Cloete, N. (2006). *Transformation in higher education: Global pressures and local realities* (Vol. 10). London: Routledge.
- Cloete, N. (2016). For sustainable funding and fees, the undergraduate system in South Africa must be restructured. Retrieved from <http://dx.doi.org/10.17159/sajs.2016/a0146>
- Cloete, N., & Bunting, I. (2000). *Higher education transformation: assessing performance in South Africa* (2nd ed. Vol. 3). Cape Town: Centre for Higher Education Transformation.
- Cloete, N., Fehnel, R., Maassen, P., Moja, T., Perold, H., & Gibbon, T. (2002). *Transformation in higher education: global pressures and local realities in South Africa* (Vol. 4). Cape Town: Centre for Higher Education Transformation.
- Cloete, N., Fehnel, R., Maassen, P., Moja, T., Perold, H., & Gibbon, T. (2005). *Transformation in higher education: Global pressures and local realities in South Africa*. Landsdowne: Juta & Co Pty Ltd.
- Cole, J. S., & Korkmaz, A. (2013). First-year students' psychological well-being and need for cognition: Are they important predictors of academic engagement? *Journal of College Student Development*, 54(6), 557-569.
- Crano, W. D., Brewer, M. B., & Lac, A. (2014). *Principles and methods of social research*. London: Routledge.
- Creswell, J. W. (2003). *Research design*. Thousand Oaks, CA: SAGE.
- Creswell, J. W. (2012). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: SAGE.
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: SAGE.
- Crocitto, M. M., Walsh, L. D., Murphy, A., & Keefe, M. A. (2017). Diversity as a natural occurrence: an enrichment strategy of peer learning. *Interactive Learning Environments*, 26(1), 1-14.
- Cross, K. P. (1998). Why learning communities? Why now? *About Campus*, 3(3), 4-11.
- Cruce, T. M., Wolniak, G. C., Seifert, T. A., & Pascarella, E. T. (2006). Impacts of good practices on cognitive development, learning orientations, and graduate degree plans during the first year of college. *Journal of College Student Development*, 47(4), 365-383.
- Dane, F. C. (2011). *Evaluating research: Methodology for people who need to read research*. Thousand Oaks, CA: SAGE.

- Darling, R. A. (2015). Creating an institutional academic advising culture that supports commuter student success. *New Directions for Student Services*, 2015 (150), 87-96.
- Davidson, J. C., & Wilson, K. B. (2016). Community college student dropouts from higher education: Toward a comprehensive conceptual model. *Community College Journal of Research and Practice*, 40, 1-14.
- Davis, B. D. (1999). Encouraging commuter student connectivity. *Business Communication Quarterly*, 62(2), 74-78.
- Dawson, P., Charman, K., & Kilpatrick, S. (2013). The new higher education reality: what is an appropriate model to address the widening participation agenda? *Higher Education Research & Development*, 32(5), 706-721.
- Denzin, N. K., & Lincoln, Y. S. (2000). *Handbook of qualitative research*. (Second ed.). Thousand Oaks, CA: SAGE.
- DHET. (2010). *Report on the stakeholder summit on higher education transformation*. Retrieved from: www.cepd.org.za.
- DHET. (2011). *Report on the Ministerial committee for the review of the provision of student housing at South African universities (978-0-621-40731-0)*. Retrieved from: www.dhet.gov.za.
- DHET. (2013). *White paper for Post-school Education and Training. Building an expanded, effective and integrated post-school system*. Retrieved from: <http://www.dhet.gov.za/SiteAssets/Latest%20News/White%20paper%20for%20Opost-school%20education%20and%20training.pdf>.
- DHET. (2016). *Annual monitoring report on the projected 2014 targets of the Ministerial statement on student enrolment planning, 2014/15-2019/20*. Retrieved from: <http://www.dhet.gov.za>.
- DHET. (2017). *Statistics on post-school education and training in South Africa*. Retrieved from: <http://www.dhet.gov.za/DHET%20Statistics%20Publication/Statistics%20on%20Post-School%20Education%20and%20Training%20in%20South%20Africa%202015.pdf>.
- Diener, E., Inglehart, R., & Tay, L. (2013). Theory and validity of life satisfaction scales. *Social Indicators Research*, 112(3), 497-527.
- DIRP. (2017). *Undergraduate and postgraduate student enrolment by race and gender, 1985 to 2016*. Division of Institutional Research and Planning, Stellenbosch University.
- Donovan, R. A. (2006). A room of their own for commuter students. *Chronicle of Higher Education*, 53(10), B24-B24.
- Dryden, N. H., & Goldstein, S. (2013). Regional campus learning commons: Assessing to meet student needs. *Journal of Library Administration*, 53(5-6), 293-322. doi:10.1080/01930826.2013.876822.
- Du Plessis, S. A. (2016). A campus-wide peer mentoring system with wellness-based face-to-face mentoring sessions, personalized and gamified developmental wellness websites for members, and a sophisticated tracking system. Retrieved from: <https://library.iated.org/view/DUPLESSIS2016ACA>.
- Dugan, J. P., Garland, J. L., Jacoby, B., & Gasiorski, A. (2008). Understanding commuter student self-efficacy for leadership: A within-group analysis. *NASPA Journal*, 45(2), 282-310.
- Dunn-Coetzee, M., & Fourie-Malherbe, M. (2017). Promoting social change amongst students in higher education: A reflection on the Listen, Live and Learn senior

- student housing initiative at Stellenbosch University. *Journal of Student Affairs in Africa*, 5(1), 63-75.
- Dunn, M. (2013). *Promoting social change amongst students in higher education: An evaluation of the Listening, Living and Learning senior student housing programme at Stellenbosch University*. Stellenbosch University, Stellenbosch. (unpublished master's thesis)
- Dunn, M., & Van Zyl, B. (2012). *A work in progress: Reflections on the development of the Res-Ed initiative at Stellenbosch University*. Centre for Student Communities, Stellenbosch University.
- Dwyer, T. (2015). Persistence in higher education through student-faculty interactions in the classroom of a commuter institution. *Innovations in Education and Teaching International*, 54(4), 1-10.
- Endo, J. J., & Harpel, R. L. (1982). The effect of student-faculty interaction on students' educational outcomes. *Research in Higher Education*, 16(2), 115-138.
- Engstrom, C., & Tinto, V. (2008). Access without support is not opportunity. *Change: The Magazine of Higher Learning*, 40(1), 46-50.
- Fernandez, A., Ford, A., Rayner, G., & Pretorius, L. (2017). Building a sense of belonging among tertiary commuter students. The Monash non-residential colleges program. *Student Success*, 8(2), 31-42.
- Fishman, D. B. (1991). An introduction to the experimental versus the pragmatic paradigm in evaluation. *Evaluation and Program Planning*, 14(4), 353-363.
- Fiske, E. B., & Ladd, H. F. (2004). *Elusive equity: Education reform in post-apartheid South Africa*. Washington: Brookings Institution Press. Retrieved from: www.hsrcprss.ac.za.
- Flagg, B. N. (2013). *Formative evaluation for educational technologies*. London: Routledge. (e-book)
- Fountain, D., & Fountain, J. M. (2013). A resource and planning toolkit for universities in Africa. *Planning for Higher Education*, 41(4), 25-40.
- Funnell, S. C., & Rogers, P. J. (2011). *Purposeful program theory: Effective use of theories of change and logic models*. Hoboken, NJ: John Wiley & Sons.
- Garland, J. (2006). Commuter students: Myths, realities, and helpful theoretical frameworks. *Student Affairs Leader*, 34(12), 1-6.
- Gay, L. R., Mills, G. E., & Airasian, P. (2009). *Educational research competencies for analysis and applications*. (Ninth ed.). New Jersey: Pearson Education International.
- Gilardi, S., & Guglielmetti, C. (2011). University life of non-traditional students: Engagement styles and impact on attrition. *The Journal of Higher Education*, 82(1), 33-53.
- Gouthro, P. A. (2017). The promise of lifelong learning. *International Journal of Lifelong Education*, 36(1-2), 45-59.
- Government (SA). (2005). Minimum admission requirements for higher certificate, diploma and bachelor's degree programmes requiring a national senior certificate. *Government Gazette*. Pretoria: Government Printer. Retrieved from: <http://www.gov.za/sites/www.gov.za/files/27961.pdf>.
- Government (SA). (2017). *South African yearbook 2015/16*. Retrieved from: <http://www.gov.za/documents/south-africa-yearbook-20152016-6-jan-2017-0000>.
- Gray, C., & Malins, J. (2016). *Visualizing research: A guide to the research process in art and design*. New York: Routledge. (e-book).

- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. *Handbook of qualitative research*, 2(163-194).
- Gumport, P. J., Iannozzi, M., Shaman, S., & Zemsky, R. (1997). The United States country report: Trends in higher education from massification to post-massification. *Hiroshima: Six Nation Educational Research Project, Hiroshima University*. New York: Springer. (e-book).
- Hagerty, B. M., Williams, R. A., Coyne, J. C., & Early, M. R. (1996). Sense of belonging and indicators of social and psychological functioning. *Archives of Psychiatric Nursing*, 10(4), 235-244.
- Harvey, L., Drew, S., & Smith, M. (2006). *The first-year experience: A review of literature for the Higher Education Academy*. York: Higher Education Academy.
- Hausmann, L. R. M., Schofield, J. W., & Woods, R. L. (2007). Sense of belonging as a predictor of intentions to persist among African American and white first-year college students. *Research in Higher Education*, 48(7), 803-839. doi:10.1007/s11162-007-9052-9.
- Haynes, S. N., Richard, D. C. S., & Kubany, E. S. (1995). Content validity in psychological assessment: A functional approach to concepts and methods. *Psychological Assessment*, 7(3), 238-247. doi:10.1037/1040-3590.7.3.238.
- HESA. (2014). *South African higher education in the 20th year of democracy: Context, achievements and key challenges*. Pretoria: Higher Education South Africa.
- Hill, W., & Woodward, L. S. (2013). Examining the impact learning communities have on College of Education students on an urban campus. *Journal of College Student Development*, 54(6), 643-648.
- Hintz, J. R. (2011). Peer educators responding to an institutional challenge: Off-campus student services. *New Directions for Student Services*, 2011(133), 87-95.
- Hoffman, E. M. (2014). Faculty and student relationships: Context matters. *College Teaching*, 62(1), 13-19.
- Hoffman, M., Richmond, J., Morrow, J., & Salomone, K. (2002). Investigating 'sense of belonging' in first-year college students. *Journal of College Student Retention: Research, Theory & Practice*, 4(3), 227-256.
- Hofstee, E. (2006). *Constructing a Good Dissertation* (Denniston, A. Ed.). Sandton: EPE.
- Honeychurch, S., & Ahmed, S. (2016). Using social media to promote deep learning and increase student engagement. DOI: <http://doi.org/10.7190/SocMedHE/2015/4>.
- Hornsby, D. J., & Osman, R. (2014). Massification in higher education: Large classes and student learning. *Higher Education*, 67(6), 711-719.
- House, J. D. (1998). *The effects of entering characteristics and college experiences on student satisfaction and degree completion: An application of the input-environment-outcome assessment model*. Washington DC: ERIC. Retrieved from: <https://eric.ed.gov/?id=ED429491>.
- Hu, S. (2011). Reconsidering the relationship between student engagement and persistence in college. *Innovative Higher Education*, 36(2), 97-106. doi:10.1007/s10755-010-9158-4.
- Hu, S., & Kuh, G. D. (2003). Maximizing what students get out of college: Testing a learning productivity model. *Journal of College Student Development*, 44(2), 185-203.

- Hughes, C., & Barrie, S. (2010). Influences on the assessment of graduate attributes in higher education. *Assessment & Evaluation in Higher Education*, 35(3), 325-334.
- Ike, N., Baldwin, C., & Lathouras, A. (2016). Student accommodation: Who cares? *Planning for Higher Education*, 44(3), 46.
- Inkelas, K. K., Drechsler, M., Szelényi, K., Kim, Y. C., McCarron, G. P., Soldner, M., & Mainieri, T. (2007). National study of living-learning programs: Report of findings. *UW-Madison Customized Report*, 222.
- Inkelas, K. K., Soldner, M., Londerbeam, S. D., & Leonard, J. B. (2008). Differences in student outcomes by types of living-learning programs: The development of an empirical typology. *Research in Higher Education*, 49(6), 495-512.
- Inkelas, K. K., & Soldner, M. (2011). Undergraduate living-learning programs and student outcomes *Higher education: Handbook of theory and research*, 1-55. New York: Springer.
- Jacobs, C., & Strydom, S. (2014). From 'Matie' to citizen - graduate attributes as signature learning at Stellenbosch University. *The Independent Journal of Teaching and Learning*, 9(1), 63-74.
- Jacoby, B. (1989). *The student as commuter: Developing a comprehensive institutional response* (0962388262). Washington DC:ASHE-ERIC, 7.
- Jacoby, B. (1990). Adapting the institution to meet the needs of commuter students. *Metropolitan Universities*, 1(2), 61-72.
- Jacoby, B. (2000a). Involving commuter students in learning: Moving from rhetoric to reality. *New directions for higher education*, 2000(109), 81-87.
- Jacoby, B. (2000b). Why involve commuter students in learning? *New directions for higher education*, 2000(109), 3-12.
- Jacoby, B. (2000c). Understanding commuter students needs and concerns lays a firm foundation for efforts to increase their involvement in learning. *New directions for higher education*, 2000(109)1-12.
- Jacoby, B. (2014). Engaging commuter and part-time students. *Student engagement in higher education: Theoretical perspectives and practical approaches for diverse populations*. London: Routledge (2nd edition, e-book).
- Jacoby, B. (2015). Engaging first-year commuter students in learning. *Metropolitan Universities*, 15(2), 12-30.
- Jacoby, B., & Garland, J. (2004). Strategies for enhancing commuter student success. *Journal of College Student Retention: Research, Theory and Practice*, 6(1), 61-79.
- Jansen, J. D. (2004). Changes and continuities in South Africa's higher education system, 1994 to 2004. *Changing class: Education and social change in post-apartheid South Africa*. Pretoria: HSRC Press.
- Janssen, M., & Estevez, E. (2013). Lean government and platform-based governance—doing more with less. *Government Information Quarterly*, 30, Supplement 1, S1-S8. doi:<http://dx.doi.org/10.1016/j.giq.2012.11.003>
- Jenkins, D., & Rodriguez, O. (2013). Access and success with less: Improving productivity in broad-access postsecondary institutions. *The Future of Children*, 23(1), 187-209.
- Jessup, F. W. (2014). *Lifelong learning: A symposium on continuing education*. London: Elsevier. (e-book).
- John, O. P., & Benet-Martínez, V. (2012). Measurement: Reliability, construct validation, and scale construction. *Handbook of research methods in Social and Personality Psychology*, 339-369. New York: Cambridge University Press.

- Johnson-Hakim, S. M., Kirk, C. M., Rowley, R. L., Lien, A. D., Greenleaf, J. P., & Burdsal, C. A. (2013). Exploring civic engagement at an urban commuter campus: Pathways and barriers. *Journal of prevention & intervention in the community*, 41(4), 279-290.
- 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. Retrieved from: www.reap.org.za/pieces/reports/pdf/tracking_reports/2008_June_factors_that_facilitate_success.pdf.
- Jones, C. E., & Watt, J. D. (1999). Psychosocial development and moral orientation among traditional-aged college students. *Journal of College Student Development*, 40(2), 125.
- Kahu, E. R. (2013). Framing student engagement in higher education. *Studies in Higher Education*, 38(5), 758-773.
- Kahu, E. R., Stephens, C., Leach, L., & Zepke, N. (2013). The engagement of mature distance students. *Higher Education Research & Development*, 32(5), 791-804.
- Kane, S., Chalcraft, D., & Volpe, G. (2014). Notions of belonging: First year, first semester higher education students enrolled on business or economics degree programmes. *The International Journal of Management Education*, 12(2), 193-201. doi:<http://dx.doi.org/10.1016/j.ijme>.
- Keeling, R. P., & Dungy, G. J. (2004). *Learning reconsidered : A campus-wide focus on the student experience*. Washington, DC: ACPA/NASPA.
- Kinzie, J., & Hurtado, S. S. Taking advantage of student engagement results in student affairs. *New Directions for Student Services*, 2017(159), 35-46.
- Kirk, C. M., & Lewis, R. K. (2013). Sense of community on an urban, commuter campus. *International Journal of Adolescence and Youth*, 1-13. doi:10.1080/02673843.2013.763833.
- Kisker, C. B., Newell, M. A., & Weintraub, D. S. (2016). The civic outcomes of community college. *New Directions for Community Colleges*, 2016(173), 103-110.
- Kloppers, P. W. (2006a). *Akademiese Gemeenskapsgroepe: Die ResEd-inisiatief*. Centre for Student Communities, Stellenbosch University.
- Kloppers, P. W. (2006b). *Eerstejaarsakademie, studentesake en organisasie van koshuise en PSO-wyke: Voorstel ten opsigte van akademiese koshuisgemeenskapsgroepe: Die ResEd-groep-inisiatief*. Student Affairs, Stellenbosch University.
- Kloppers, P. W. (2008). *Die ontwikkeling van PSO-studente op Stellenbosch*. Memorandum. Centre for Student Communities, Stellenbosch University.
- Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education*, 4(2), 193-212.
- Komaraju, M., Musulkin, S., & Bhattacharya, G. (2010). Role of student-faculty interactions in developing college students' academic self-concept, motivation, and achievement. *Journal of College Student Development*, 51(3), 332-342.
- Kothari, C. R. (2011). *Research methodology: Methods and techniques*. Delhi: New Age International.
- Krauss, S. E. (2005). Research paradigms and meaning making: A primer. *The qualitative report*, 10(4), 758-770.

- Kuh, G. D. (1993). In their own words: What students learn outside the classroom. *American Educational Research Journal*, 30(2), 277-304.
- Kuh, G. D. (1995). The other curriculum: Out-of-class experiences associated with student learning and personal development. *The Journal of Higher Education*, 66(2), 123-155.
- Kuh, G. D. (2001a). Assessing what really matters to student learning inside the national survey of student engagement. *Change: The Magazine of Higher Learning*, 33(3), 10-17.
- Kuh, G. D. (2001b). Organizational culture and student persistence: Prospects and puzzles. *Journal of College Student Retention: Research, Theory & Practice*, 3(1), 23-39.
- Kuh, G. D. (2003). What we're learning about student engagement from NSSE: Benchmarks for effective educational practices. *Change: The Magazine of Higher Learning*, 35(2), 24-32.
- Kuh, G. D. (2008). Excerpt from high-impact educational practices: What they are, who has access to them, and why they matter. *Association of American Colleges and Universities*. Retrieved from: https://ueeval.ucr.edu/teaching_practices_inventory/Kuh_2008.
- 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. (2016). Making learning meaningful: Engaging students in ways that matter to them. *New directions for teaching and learning*, 2016(145), 49-56.
- Kuh, G. D., Gonyea, R. M., & Palmer, M. (2001). The disengaged commuter: Fact or fiction? *National Survey of Student Engagement*, 11.
- Kuh, G. D., Kinzie, J., Cruce, T., Shoup, R., & Gonyea, R. M. (2006). *Connecting the dots: Multi-faceted analyses of the relationships between student engagement results from the NSSE, and the institutional practices and conditions that foster student success*. Indiana University, Center for Postsecondary Research. Retrieved from: <https://pdfs.semanticscholar.org>.
- Kuh, G. D., Kinzie, J., Schuh, G. H., & Whitt, E. J. (2005). *Assessing conditions to enhance educational effectiveness*. San Francisco: Jossey-Bass.
- Kuh, G. D., Kinzie, J., Schuh, J. H., & Whitt, E. J. (2011). *Student success in college: Creating conditions that matter*. Hoboken, NJ: John Wiley & Sons.
- Kuh, G. D., Schuh, J. H., & Whitt, E. J. (1991). Some good news about campus life. *Proquest*, 23(5), 48-55.
- Lardner, E. D., & Malnarich, G. (2008). Sustaining learning communities: Moving from curricular to educational reform. *Perspectives*, Winter, 20-23.
- Leary, M. R., Kelly, K. M., Cottrell, C. A., & Schreindorfer, L. S. (2013). Construct validity of the need to belong scale: Mapping the nomological network. *Journal of Personality Assessment*, 95(6), 610-624.
- Leedy, P. D., & Ormrod, J. E. (2005). *Practical research: Planning and design*. New Jersey: Pearson.
- Leibowitz, B., & Bozalek, V. (2014). Access to higher education in South Africa: A social realist account. *Widening participation and lifelong learning*, 16(1), 19.
- Levy, P. S., & Lemeshow, S. (2013). *Sampling of populations: Methods and applications*. Hoboken, NJ: John Wiley & Sons.
- Lieberman, L. D., Fagen, M. C., & Neiger, B. L. (2014). Evaluating programs that address ideological issues ethical and practical considerations for practitioners and evaluators. *Health promotion practice*, 15(2), 161-167.

- Lipka, S. (2007). Commuters get their own place at Mansfield U. *Chronicle of Higher Education*, 54(8).
- Logan, T. K., Padgett, D. K., Thyer, B. A., & Royse, D. (2006). *Program evaluation: An introduction*. Belmont CA: Thomson Brooks/Cole, Belmont (Fourth Edition).
- Lomas, C., & Oblinger, D. G. (2006). Student practices and their impact on learning spaces. *Learning spaces*, 5 (11),1-5.
- Long, L. D. (2014). Does it matter where college students live? Differences in satisfaction and outcomes as a function of students' living arrangement and gender. *The Journal of College and University Student Housing*, 40(2), 66-85.
- Long, P. N., & Amey, M. J. (1993). *A study of underprepared students at one community college: Assessing the impact of student and institutional input, environmental, and output variables on student success*. Texas A&M University, ASHE-ERIC.
- Long, T., & Johnson, M. (2000). Rigour, reliability and validity in qualitative research. *Clinical effectiveness in Nursing*, 4(1), 30-37.
- Love, P. G., & Goodsell-Love, A. (1996). *Enhancing student learning: Intellectual, social, and emotional integration*. Washington DC: ERIC digests.
- Lui, J. (2012). *Examining massification policies and their consequences for equality in Chinese higher education: A cultural perspective*. DOI 10.1007/s10734-012-9517-4.
- Maree, K. (2007). *First steps in research* (11th ed.). Pretoria: Van Schaik Publishers.
- Maree, K. (2013). *First steps in research* (14th ed.). Pretoria: Van Schaik Publishers.
- Marginson, S. (2016). The worldwide trend to high participation higher education: Dynamics of social stratification in inclusive systems. *Higher Education*, 72(4), 413-434. doi:10.1007/s10734-016-0016-x.
- Marshall, S. K. (2001). Do I matter? Construct validation of adolescents' perceived mattering to parents and friends. *Journal of Adolescence*, 24(4), 473-490. doi:http://dx.doi.org/10.1006/jado.2001.0384.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370.
- Maslow, A. H. (1962). Notes on being-psychology. *Journal of Humanistic Psychology*, 2(2), 47-71.
- Maslow, A. H., Frager, R., Fadiman, J., McReynolds, C., & Cox, R. (1970). *Motivation and personality* (Vol. 2). New York: Harper & Row.
- Maslow, A. H., & Lewis, K. J. (1987). *Maslow's hierarchy of needs*. New York: Salenger Incorporated. Retrieved from: <http://www.researchhistory.org>.
- McLaughlin, J. A., & Jordan, G. B. (1999). Logic models: a tool for telling your programs performance story. *Evaluation and Program Planning*, 22(1), 65-72.
- Mdepa, W., & Tshiwula, L. (2012). Student diversity in South African higher education. *Widening participation and lifelong learning*, 13 (special), 19-33.
- Meiklejohn, A. (1932). *The experimental college*. Wisconsin: Univ of Wisconsin Press.
- Mertens, D. M. (2012). What comes first? The paradigm or the approach? *Journal of Mixed Methods Research*, 6(4), 255.
- Mertens, D. M. (2014). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods*. London: SAGE Publications.
- Milem, J. F., & Berger, J. B. (1997). A modified model of college student persistence: Exploring the relationship between Astin's theory of involvement and Tinto's theory of student departure. *Journal of College Student Development*, 38(4), 387-400.

- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). (e-book).
- Mills, G. E., Airasian, P., & Gay, L. R. (2012). *Educational research: Competencies for analysis and application*. Englewood Cliffs, NJ: Prentice Hall.
- Mlinar, Z. (1994). Deterritorialization and re-territorialization of cultural identities. *Druzboslovne razprave*, 15-16, 140-153.
- Mohamedbhai, G. (2008). *The effects of massification on higher education in Africa*. Accra, Ghana: Association of African Universities.
- Mohrman, K. (2014). Portraits of 21st century Chinese universities: In the move to mass higher education. *CERC Studies in Comparative Education*, 30. *Pacific Affairs*, 87(1), 140-142.
- Mok, K. H., & Neubauer, D. (2016). Higher education governance in crisis: A critical reflection on the massification of higher education, graduate employment and social mobility. *Journal of Education and Work*, 29(1), 1-12. doi:10.1080/13639080.2015.1049023.
- Mouton, J. (2001). *How to succeed in your master's & doctoral studies*. Pretoria: Van Schaik Publishers.
- NCHE. (1996). *A framework for transformation*. Parow: CTP Book Printers.
- Nelson, D., Misra, K., Sype, G. E., & Mackie, W. (2016). An analysis of the relationship between distance from campus and GPA of commuter students. *Journal of International Education Research*, 12(1), 37-46.
- Nelson, K. J., Clarke, J. A., Stoodley, I. D., & Creagh, T. A. (2014). *Establishing a framework for transforming student engagement, success and retention in higher education institutions* [Final Report]. Retrieved from: <http://eprints.qut.edu.au>.
- Newbold, J. J. (2015). Lifestyle challenges for commuter students. *New Directions for Student Services*, 2015(150), 79-86.
- Newbold, J. J., Mehta, S. S., & Forbus, P. (2011). Commuter students: Involvement and identification with an institution of higher education. *Academy of Educational Leadership Journal*, 15(2), 141-153.
- Norwani, N. M., Yusof, R., & Abdullah, M. K. L. (2009). Learning outcomes at higher education institutions: To what extent do institutional environments contribute. *The Journal of Human Resource and Adult Learning*, 5(1), 84-94.
- NPC. (2012). *National development plan, 2030: Our future-make it work*. Retrieved from: http://www.gov.za/sites/www.gov.za/files/NDP-2030-Our-future-make-it-work_r.pdf.
- NPC. (2013). *National development plan. Vision 2030*. Retrieved from: policyresearch.limpopo.gov.za.
- NSSE. (2007). *Experiences that matter: Enhancing student learning and success*. Retrieved from http://nsse.indiana.edu/nsse_2007_annual_report/
- O'Leary, Z. (2013). *The essential guide to doing your research project*. (2nd edition). London: SAGE. (e-book).
- Oblinger, D. (2005). Leading the transition from classrooms to learning spaces. *Educause Quarterly*, 1(7-12).
- Oblinger, D. G. (2006). Space as a change agent. *Learning spaces*, 1. Retrieved from: <http://www.educause.edu>.
- Oketch, M. (2016). Financing higher education in sub-Saharan Africa: some reflections and implications for sustainable development. *Higher Education*, 72(4), 525-539. doi:10.1007/s10734-016-0044-6.

- Orosz, K., & Perna, L. W. (2016). Higher education internationalization in the context of ongoing economic-political transitions: Insights from former Soviet and Eastern bloc nations. *Higher Education*, 6(1), 3-20.
- Ortman, J. (1995). *Commuter students in colleges and universities*. Washington: USDE, ERIC.
- Ostrove, J. M., & Long, S. M. (2007). Social class and belonging: Implications for college adjustment. *Review of Higher Education*, 30(4), 363-373.
- Pallant, J. (2010). *SPSS survival manual*. Berkshire: McGraw Hill.
- Palys, T., & Lowman, J. (2000). Ethical and legal strategies for protecting confidential research information. *Canadian Journal of Law and Society*, 15(1), 39-80.
- Parameswaran, A., & Bowers, J. (2014). Student residences: From housing to education. *Journal of Further and Higher Education*, 38(1), 57-74.
- Pascarella, E. T. (2006). How college affects students: Ten directions for future research. *Journal of College Student Development*, 47(5), 508-520.
- Pascarella, E. T., & Chapman, D. W. (1983). Validation of a theoretical model of college withdrawal: Interaction effects in a multi-institutional sample. *Research in Higher Education*, 19(1), 25-48.
- Pascarella, E. T., & Terenzini, P. T. (1980). Predicting freshman persistence and voluntary dropout decisions from a theoretical model. *The Journal of Higher Education*, 51(1), 60-75.
- Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students*. San Francisco: Jossey-Bass.
- Patton, M. Q. (1980). *Qualitative research methods*. London: SAGE.
- Patton, M. Q. (1987). How to use qualitative methods in evaluation. London: SAGE.
- Patton, M. Q. (1997). Toward distinguishing empowerment evaluation and placing it in a larger context. *Evaluation Practice*, 18(2), 147.
- Paulsen, M. B., & Smart, J. C. (2013). *Higher education: Handbook of theory and research*. New York: Springer.
- Phinney, J. S., Dennis, J. M., & 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.
- Pike, G. R., Kuh, G. D., & McCormick, A. C. (2011). An investigation of the contingent relationships between learning community participation and student engagement. *Research in Higher Education*, 52(3), 300-322.
- Plowright, D. (2011). *Using mixed methods*. London: SAGE.
- Pokorny, H., Holley, D., & Kane, S. (2016). Commuting, transitions and belonging: The experiences of students living at home in their first year at university. *Higher Education*, 1-16. DOI 10.1007/s10734-016-0063-3.
- Posavac, E. J. (2015). *Program evaluation: Methods and case studies*. London: Routledge. (e-book).
- Price, D. V., & Tovar, E. (2014). Student engagement and institutional graduation rates: identifying high-impact educational practices for community colleges. *Community College Journal of Research and Practice*, 1-17. DOI:10.1080/10668926.2012.719481.
- Pucciarelli, F., & Kaplan, A. (2016). Competition and strategy in higher education: Managing complexity and uncertainty. *Business Horizons*, 59(3), 311-320.
- Punch, K. F. (2013). *Introduction to social research: Quantitative and qualitative approaches*. London: SAGE.

- Quaye, S. J., & Harper, S. R. (2014). *Student engagement in higher education: Theoretical perspectives and practical approaches for diverse populations*. London: Routledge.
- Reid-Cunningham, A. R. (2008). *Maslow's theory of motivation and hierarchy of human needs: A critical analysis*. (Unpublished thesis.)
- Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (2013). *Qualitative research practice: A guide for social science students and researchers*. London: SAGE.
- Rocconi, L. M. (2011). The impact of learning communities on first year students' growth and development in college. *Research in Higher Education, 52*(2), 178-193. DOI:10.1007/s11162-010-9190-3.
- Rowley, J. (2014). Designing and using research questionnaires. *Management Research Review, 37*(3), 308-330.
- Sandelowski, M. (2000). Focus on research methods combining qualitative and quantitative sampling, data collection, and analysis techniques. *Research in Nursing & Health, 23*, 246-255.
- Schendel, R., & McCowan, T. (2016). Expanding higher education systems in low- and middle-income countries: the challenges of equity and quality. *Higher Education, 72*(4), 407-411. DOI:10.1007/s10734-016-0028-6.
- Schieffer, A., & Lessem, R. (2014). The Integral University: Holistic development of individuals, communities, organisations and societies. *Prospects, 44*(4), 607-626. DOI:10.1007/s11125-014-9324-z.
- Schofer, E., & Meyer, J. W. (2005). The worldwide expansion of higher education in the twentieth century. *American Sociological Review, 70*(6), 24.
- Sehoole, M. T. C. (2005). *Democratizing higher education policy: constraints of reforms in post-apartheid South Africa* (Altbach, P. G. Ed.). New York: Routledge.
- Seligman, M. E., & Csikszentmihalyi, M. (2014a). *Positive psychology: An introduction*. New York: Springer.
- Shannon-Baker, P. (2016). Making paradigms meaningful in mixed methods research. *Journal of Mixed Methods Research, 10*(4), 319-334.
- Shapiro, N., & Levine, J.H. (1999). *Creating learning communities: A practical guide to winning support, organizing for change, and implementing programs*. Hoboken, NJ: Jossey-Bass.
- Sidelinger, R. J., Frisby, B. N., & Heisler, J. (2016). Students' out of the classroom communication with instructors and campus services: Exploring social integration and academic involvement. *Learning and Individual Differences, 47*, 167-171.
- Sieber, J. E., & Tolich, M. B. (2013). *Planning ethically responsible research*. London: SAGE.
- Silverman, D. (2016). *Qualitative research*. London: SAGE.
- Simons, J. A., Irwin, D. B., & Drinnien, B. A. (1987). *Maslow's hierarchy of needs. The search for understanding*. New York: West Publishing. Retrieved from: www.andrews.edu.
- Smith, B. L. (2001). The challenge of learning communities as a growing national movement, *Peer Review, 4*(1), 4-8. Retrieved from: <https://www.maricopa.edu>.
- Smith, D. G. (2015). *Diversity's promise for higher education: Making it work*. Baltimore MD: JHU Press.
- Smith, E. (2016). Can higher education compensate for society? Modelling the determinants of academic success at university. *British Journal of Sociology of Education, 37*(7), 970-992.

- Smorenburg, M., & Dunn, M. (2014). Listen, live and learn: A review of the application process, aiming to enhance diversity within the Listen, Live and Learn senior student housing initiative at Stellenbosch University. *Journal of Student Affairs in Africa*, 2. DOI:10.14426/jsaa.v2i1.49.
- Soldner, M., & SzelÉNy, K. (2008). A national portrait of today's living-learning programs. *Journal of College & University Student Housing*, 35(1), 14-31.
- Spaull, N. (2013). *South Africa's education crisis: The quality of education in South Africa 1994-2011*. Johannesburg: Centre for Development and Enterprise. Retrieved from: <http://www.section27.org.za>.
- Spaull, N. (2016). Important research inputs on feesmustfall. Retrieved from: <https://nicspaull.com/2016/09/29/important-research-inputs-on-feesmustfall/>
- Spence, I. (2005). No humble pie: The origins and usage of a statistical chart. *Journal of Educational and Behavioral Statistics*, 30(4), 353-368.
- StatsSA (2016). Statistical release: Mid-year population estimates (Statistics). Retrieved from: <http://www.statssa.gov.za/publications/P0302/P03022016.pdf>.
- Stevens, R. A. (2000). Welcoming commuter students into living-learning programs. *New directions for higher education*, 2000(109), 71-79.
- Stromquist, N. P., & Monkman, K. (2014). *Globalization and education: Integration and contestation across cultures*. Lanham MD: R&L Education.
- Strydom, J. F., Basson, N., & Mentz, M. (2012). *Enhancing the quality of teaching and learning: Using student engagement data to establish a culture of evidence*. Retrieved from: <http://www.che.ac.za>.
- SU. (2000). A strategic framework for the turn of the century and beyond. Stellenbosch University, Stellenbosch. Retrieved from <http://www.sun.ac.za/english/policy/Documents/StrategicFramework.pdf>
- SU.(2005). SU Annual Report, 2005. Stellenbosch University, Stellenbosch. Retrieved from: <http://www.sun.ac.za/english/Documents/About/YearReport/Before%202006/US%20Jaarverslag%202005.pdf>.
- SU. (2006). First-year academy report: Executive summary. Stellenbosch University, Stellenbosch.
- SU. (2009). Report of the task team for the advancement of the integration of PSO students in learning and living communities. Stellenbosch University, Stellenbosch.
- SU. (2011). Stellenbosch University institutional plan: 2012-2016. Stellenbosch University, Stellenbosch. Retrieved from: http://www.sun.ac.za/english/Documents/Strategic_docs/InstitusionelePlan_e.pdf.
- SU. (2012a). Institutional intent and strategy 2013-2018. Stellenbosch University, Stellenbosch.
- SU. (2012b). Learning and teaching policy. Stellenbosch University, Stellenbosch. Retrieved from: <http://www.sun.ac.za/english/policy>.
- SU. (2012c). Report internal panel. Centre for Student Communities self-evaluation. Stellenbosch University, Stellenbosch. (Unpublished report.)
- SU. (2012d). Teaching and learning report, 2012. Stellenbosch University, Stellenbosch. Retrieved from: <http://www0.sun.ac.za/ctl/policies-guidelines-reports>.
- SU. (2013). Strategy for teaching and learning, 2014-2018. Centre for Teaching and Learning, Stellenbosch University, Stellenbosch. Retrieved from: <http://www.sun.ac.za/english/learning-teaching>.

- SU. (2014). Stellenbosch University historical background. Stellenbosch University, Stellenbosch. Retrieved from <http://www.sun.ac.za/english/about-us/historical-background>.
- SU. (2015a). Policy for placement in residences, and in Listening, Learning and Living houses, as well as allocation to PSO wards and clusters (higher education). Stellenbosch University, Stellenbosch. Retrieved from: <http://www.sun.ac.za>.
- SU. (2015b). Verslag van die taakspan oor die toekomstige aanwending en organisering van privaat studente organisasies (PSO's) om studentesukses binne die konteks van die klusterinisiatief te bevorder. Stellenbosch University, Stellenbosch. (Unpublished document.)
- SU. (2016a). Language policy. Stellenbosch University, Stellenbosch. Retrieved from: <http://www.sun.ac.za/english/policy>.
- SU. (2016b). Statistical Profile. Stellenbosch University, Stellenbosch. Retrieved from: <http://www.sun.ac.za>.
- SU. (2017a). Admission requirements for undergraduate programmes 2018. Stellenbosch University, Stellenbosch. Retrieved from: <http://www.sun.ac.za>.
- SU. (2017b). Fact Book 2016 Part 1, 2017, 85. Stellenbosch University, Stellenbosch. Retrieved from: <http://www.sun.ac.za>.
- SU. (2017c). General policies and rules: Calendar part 1. Stellenbosch University, Stellenbosch Retrieved from: <http://www.sun.ac.za/english/Documents/Yearbooks>.
- SU. (2017d). Management guidelines for the application of the placement policy for the 2018 student intake. Stellenbosch University, Stellenbosch. Retrieved from: <http://www.sun.ac.za/english/maties/Documents>.
- SU. (2017e). Strategy for teaching and learning, 2017-2021. Stellenbosch University, Stellenbosch. Retrieved from www.sun.ac.za.
- SU. (2017f). Towards Vision 2040 and SU strategy 2019-2024. Stellenbosch University, Stellenbosch. Retrieved from: <http://www.sun.ac.za>.
- Sutherland, I., & Ladkin, D. (2013). Creating engaged executive learning spaces: The role of aesthetic agency. *Organizational Aesthetics*, 2(1), 105-124.
- Tario, J. D., Ancar, R., Lawson, C. T., Mallia, M. E., Franklin, C., Fischer, B., Hogenkamp, D., Ryan, M. (2010). *Understanding commuter patterns and behavior: An analysis to recommend policies aimed at reducing vehicle use. Executive report*. Albany, NY: The University at Albany, NY.
- Taylor-Powell, E., & Henert, E. (2008). Developing a logic model: Teaching and training guide. *Benefits*, 3, 22.
- Taylor, P. C., & Medina, M. N. D. (2013). Educational research paradigms: From positivism to multiparadigmatic. *The Journal of Meaning-Centered Education*, 1(3).
- Teichler, U. (2013). New challenges for higher education and the future of higher education research. *South African Journal of Higher Education*, 27(2), 309-329.
- Temple, P. (2008). Learning spaces in higher education: an under-researched topic. *London Review of Education*, 6(3), 229-241.
- Terenzini, P. T., & Pascarella, E. T. (1977). Voluntary freshman attrition and patterns of social and academic integration in a university: A test of a conceptual model. *Research in Higher Education*, 6(1), 25-43.
- Terenzini, P. T., & Pascarella, E. T. (1994). Living with myths: Undergraduate education in America. *Change: The Magazine of Higher Learning*, 26(1), 28-32.

- Terenzini, P. T., Pascarella, E. T., & Blimling, G. S. (1999). Students' out-of-class experiences and their influence on learning and cognitive development: A literature review. *Journal of College Student Development, 40*(5), 610-623.
- Terenzini, P. T., Springer, L., Yaeger, P. M., Pascarella, E. T., & Nora, A. (1996). First-generation college students: Characteristics, experiences, and cognitive development. *Research in Higher Education, 37*(1), 1-22.
- Thom, H. B., Craven, D. H., Du Toit, P. S., Hanekom, T. N., Hugo, A. M., Kotzé, D. J., & Booyens, B. (1966). *Stellenbosch 1866-1966: honderd jaar hoër onderwys* (van der Merwe, J. Ed.). Kaapstad: Nasionale Boekhandel Beperk.
- Thomas, H. (2010). Learning spaces, learning environments and the dis'placement' of learning. *British Journal of Educational Technology, 41*(3), 502-511.
- Thomas, L. (2012). *Building student engagement and belonging in higher education at a time of change*. Retrieved from https://www.heacademy.ac.uk/system/files/what_works_summary_report_0.pdf
- Thomsen, J., & Eikemo, T. A. (2010). Aspects of student housing satisfaction: A quantitative study. *Journal of Housing and the Built Environment, 25*(3), 273-293.
- Thurmond, V. A., & Popkess-Vawter, S. (2003). Examination of a middle range theory: Applying Astin's input-environment-outcome (IEO) model to web-based education. *Online Journal of Nursing Informatics, 7*(2).
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*(1), 89-125.
- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. Washington DC: USDE, ERIC.
- Tinto, V. (2000). What have we learned about the impact of learning communities on students? *Assessment update: Progress, trends, and practices in Higher Education, 12*(2), 4.
- Tinto, V. (2003). Learning better together: The impact of learning communities on student success. *Higher Education monograph series, 1*(8).
- Tinto, V. (2006). Research and practice of student retention: What next? *Journal of College Student Retention: Research, Theory & Practice, 8*(1), 1-19.
- Tinto, V. (2012). *Completing college: Rethinking institutional action*. Chicago: The University of Chicago Press. (e-book).
- Tinto, V., & Goodsell-Love, A. (1993). Building community. *Liberal Education, 79*(4), 16.
- Torres, V., Howard-Hamilton, M. F., & Cooper, D. L. (2011). *Identity development of diverse populations: implications for teaching and administration in higher education*. San Francisco: Jossey-Bass. (ASHE ERIC Higher education report)
- Tovar, E., Simon, M. A., & Lee, H. B. (2009). Development and validation of the college mattering inventory with diverse urban college students. *Measurement and Evaluation in Counseling and Development, 42*(3), 154-178.
- Townley, G., Katz, J., Wandersman, A., Skiles, B., Schillaci, M. J., Timmerman, B. E., & Mousseau, T. A. (2013). Exploring the role of sense of community in the undergraduate transfer student experience. *Journal of Community Psychology, 41*(3), 277-290. DOI:10.1002/jcop.21529.
- Townsend, R. D. (2006). The influence of student involvement with campus life on the retention of African American students enrolled at a public historically black university. Retrieved from: <http://www.lib.ncsu.edu/resolver/1840.16/5067>.

- Trow, M. A. (1973). Problems in the transition from elite to mass higher education. Retrieved from: <https://files.eric.ed.gov/fulltext/ED091983>.
- Trow, M. A. (2000). From mass higher education to universal access: The American advantage. *Minerva*, 37(4), 303-328.
- Trow, M. A. (2005). Reflections on the transition from elite to mass to universal access: Forms and phases of higher education in modern societies since WWII. Institute of Governmental Studies, UC Berkeley, 96, 1-67.
- Trowler, P., & Trowler, V. (2010). *Student engagement evidence summary*. York: The Higher Education Academy.
- Trowler, V. (2010). *Student engagement literature review*. York: The Higher Education Academy.
- Van der Voet, J., & Vermeeren, B. (2017). Change management in hard times: Can change management mitigate the negative relationship between cutbacks and the organizational commitment and work engagement of public sector employees? *The American Review of Public Administration*, 47(2), 230-252.
- Varghese, N. (2013). *Governance reforms in higher education: A study of selected countries in Africa*. Paper presented at the Policy Forum on governance reforms in higher education in Africa, Nairobi Kenya. Paris: UNESCO.
- Waghid, Y. (2002). Knowledge production and higher education transformation in South Africa: Towards reflexivity in university teaching, research and community service. *Higher Education*, 43(4), 457-488.
- Wahyuni, D. (2012). The research design maze: Understanding paradigms, cases, methods and methodologies. *Journal of Applied Management Accounting Research*, 10(1), 69-80.
- Wardley, L., & Bélanger, C. (2013). Rites of passage: Does adaptation to university mean severing connections? *Tertiary Education and Management*, 19(1), 32-51.
- Wawrzynski, M. R., Heck, A. M., & Remley, C. T. (2012). Student engagement in South African higher education. *Journal of College Student Development*, 53(1), 106-123.
- Webber, K. L., Krylow, R. B., & Zhang, Q. (2013). Does involvement really matter? Indicators of college student success and satisfaction. *Journal of College Student Development*, 54(6), 591-611.
- Weiss, M. (2014). *The college experience of commuter students and the concepts of place and space*. (University of Rhode Island dissertation). Michigan: ProQuest Dissertations Publishing.
- Wholey, J. S., Hatry, H. P., & Newcomer, K. E. (2010). *Handbook of practical program evaluation*. Hoboken NJ: John Wiley & Sons.
- Wood, D., Gray-Ganter, G., & Bailey, R. (2016). Pre-commencement interviews to support transition and retention of first year undergraduate students. *Student Success*, 7(2), 21-31.
- Zepke, N., & Leach, L. (2010). Improving student engagement: Ten proposals for action. *Active learning in higher education*, 11(3), 167-177.
- Zhao, C.-M., & Kuh, G. D. (2004). Adding value: Learning communities and student engagement. *Research in Higher Education*, 45(2), 115-138.
- Zimmerman, A., & Martin, M. (2001). Post-occupancy evaluation: Benefits and barriers. *Building Research & Information*, 29(2), 168-174.
- Zunes, S. (1999). The role of non-violent action in the downfall of apartheid. *The Journal of Modern African Studies*, 37(01), 137-169.

Addendum A

PARTICIPANT CONSENT



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY
jou kennisvenoot • your knowledge partner

STELLENBOSCH UNIVERSITY CONSENT TO PARTICIPATE IN RESEARCH

TITLE OF THE RESEARCH PROJECT: The needs of commuter students: an evaluation of the amaMaties hub at Stellenbosch University.

REFERENCE NUMBER: DESC/VanZyl/Oct2013/14

RESEARCHER: Benita van Zyl

ADDRESS: *Department of Education, Stellenbosch University*

CONTACT NUMBER: 0845128795 / 021 808 2461

Dear *amaMaties* Student

My name is **Benita van Zyl** and I am a ResEd Manager and the Coordinator of the **amaMaties Cluster**. I would like to invite you to participate in a research project entitled:

The needs of commuter students: an evaluation of the amaMaties hub at Stellenbosch University.

Please take some time to read the information presented here, which will explain the details of this project and contact me if you require further explanation or clarification of any aspect of the study. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the Humanities Research Ethics Committee (HREC) at Stellenbosch University and will be conducted according to accepted and applicable national and international ethical guidelines and principles.

1. **There are no potential risks or discomforts to be identified.**
2. **Potential benefits of participation:**

Research done at Stellenbosch University and at other universities around the world indicate that commuter students need special attention so that their student experience

can become more comparable with that of residential students. The outcomes must help us to determine whether students feel an increased sense of belonging and if the facilities in the amaMaties cluster are utilized by the commuter students. If it is not the case, what can be done to improve the experience? The evaluation of the amaMaties hub will therefore not only be beneficial to the current PSO students of Libertas and Equité, but to the students in the years to come. It will also be a benefit to other universities in South Africa within the South African Higher Education context.

3. There will be no payment for participation.
4. Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality and anonymity will be maintained throughout the research as no names will be mentioned or published. Any information that was obtained in this study will remain confidential and anonymous.

If you have any questions or concerns about the research, please feel free to contact me at:

Benita van Zyl, benitavz@sun.ac.za ; 0845128795 / 0218082461.

RIGHTS OF RESEARCH PARTICIPANTS: You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development. You have right to receive a copy of the Information and Consent form.

If you are willing to participate in this study please click on the block below and then the continue button:

Yes, I give consent

OR

No, I do not give consent

Continue

OR

Discontinue

I need the data desperately. Thank you in advance for participating!

**Benita van Zyl
amaMaties Coordinator**

Addendum B

AMAMATIES QUESTIONNAIRE

Dear Student,

The purpose of this questionnaire is to obtain feedback from students in the amaMaties cluster regarding the cluster village. The cluster village includes the hub, conference hall, Tinie Louw Dining Hall, deli, braai area and overnight rooms.

This survey is part of a study to evaluate to what extent the amaMaties hub and cluster village contribute to addressing the needs of commuter students, to promoting student engagement and to forming healthy student communities. The study is done towards a Master's Degree in Education. Ethical clearance and institutional permission to conduct the study have been granted by the appropriate institutional structures.

Completing the questionnaire will take **less than 10 minutes** of your time. Your honest feedback will be appreciated.

1. To which residence or PSO do you belong? (X)

Equité Female PSO		
Erica Female Residence		
Helderberg Male Residence		
Huis Neethling Mixed Residence		
Libertas Male PSO		
Nemesia Female Residence		
Serruria Female Residence		
Other: <i>Please specify</i>		

2. Please indicate your **race**. (X)

Asian	
Black	
Brown	
Coloured	
White	

3. Please indicate your **gender**. (X)

Female	
Male	

4. Do you know that there is a **hub** building for the **amaMaties**-cluster? (X)

YES		NO	
-----	--	----	--

5(a) If you answered “**yes**” to Question 4, have you visited the **hub**? (X)

YES		NO	
-----	--	----	--

*If you answered “no” to Question 5 (a), please go to **Question 10**.*

5(b) If you answered “**yes**” to Question 5 (a), please indicate **how many times this year** (per term) have you visited the **hub** (X)

FIRST TERM

0		1-5		6-10		11 or more	
---	--	-----	--	------	--	------------	--

SECOND TERM

0		1-5		6-10		11 or more	
---	--	-----	--	------	--	------------	--

THIRD TERM

0		1-5		6-10		11 or more	
---	--	-----	--	------	--	------------	--

FOURTH TERM

0		1-5		6-10		11 or more	
---	--	-----	--	------	--	------------	--

6(a) What do you use the **hub** for? (X) Please **rank** your choices in terms of what you use it for most often to least often, where

1 = most often used for and 8 = least often used for

	To socialize
	To study by myself
	To participate in study groups
	To relax
	To participate in mentor sessions
	To eat: at the Tinie Louw Dining Hall
	To eat: at the deli
	To make use of the lockers
	I don't use it at all
	Other: <i>specify</i>

6(b) What **other services** (apart from those listed above) would you like to be provided by the **hub**?

7. How useful do you find the **amaMaties hub**? (X)

1 = not useful at all; 7 = very useful

Not useful at all							Very useful	
1	2	3	4	5	6	7		

Please explain your score:

8. How satisfied are you with the hub? (X)

1 = very dissatisfied; 7 = very satisfied

Very dissatisfied							Very satisfied	
1	2	3	4	5	6	7		

Please explain your score:

9. To what extent do you feel welcome in the hub?

1 = not welcome at all and 7 = very welcome

Not welcome at all							Very welcome	
1	2	3	4	5	6	7		

Please motivate your score:

If you do **NOT** use the **hub**, what would cause you to use the **hub**?

11(a) Do you know that meals can be booked at the **Tinie Louw Dining Hall**? (X)

YES		NO	
-----	--	----	--

11(b) Do you take **meals** at the Tinie Louw Dining Hall? (X)

YES		NO	
-----	--	----	--

Addendum C

HUMANITIES REC LETTER



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY
jou kennisvenoot • your knowledge partner

Approval Notice Progress Report

23-Nov-2015
Van Zyl, Benita B

Proposal #: DESC/VanZyl/Oct2013/14

Title: Addressing the needs of commuter students: an evaluation of the amaMaties hub at Stellenbosch University

Dear Mrs. Benita Van Zyl,

Your **Progress Report** received on **05-Nov-2015**, was reviewed by members of the **Research Ethics Committee: Human Research (Humanities)** via Expedited review procedures on **23-Nov-2015** and was approved.
Please note the following information about your approved research proposal:

Proposal Approval Period: **23-Nov-2015 -22-Nov-2016**

Please take note of the general Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

Please remember to use your **proposal number** (DESC/VanZyl/Oct2013/14) on any documents or correspondence with the REC concerning your research proposal.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Also note that a progress report should be submitted to the Committee before the approval period has expired if a continuation is required. The Committee will then consider the continuation of the project for a further year (if necessary).

This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki and the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health). Annually a number of projects may be selected randomly for an external audit.

National Health Research Ethics Committee (NHREC) registration number REC-050411-032.

We wish you the best as you conduct your research.

If you have any questions or need further help, please contact the REC office at 218089183.

Sincerely,

Clarissa Graham
REC Coordinator
Research Ethics Committee: Human Research (Humanities)

Investigator Responsibilities

Protection of Human Research Participants

Some of the general responsibilities investigators have when conducting research involving human participants are listed below:

1. Conducting the Research. You are responsible for making sure that the research is conducted according to the REC approved research protocol. You are also responsible for the actions of all your co-investigators and research staff involved with this research. You must also ensure that the research is conducted within the standards of your field of research.

2. Participant Enrollment. You may not recruit or enroll participants prior to the REC approval date or after the expiration date of REC approval. All recruitment materials for any form of media must be approved by the REC prior to their use. If you need to recruit more participants than was noted in your REC approval letter, you must submit an amendment requesting an increase in the number of participants.

3. Informed Consent. You are responsible for obtaining and documenting effective informed consent using **only** the REC-approved consent documents, and for ensuring that no human participants are involved in research prior to obtaining their informed consent. Please give all participants copies of the signed informed consent documents. Keep the originals in your secured research files for at least five (5) years.

4. Continuing Review. The REC must review and approve all REC-approved research proposals at intervals appropriate to the degree of risk but not less than once per year. There is **no grace period**. Prior to the date on which the REC approval of the research expires, **it is your responsibility to submit the continuing review report in a timely fashion to ensure a lapse in REC approval does not occur**. If REC approval of your research lapses, you must stop new participant enrollment, and contact the REC office immediately.

5. Amendments and Changes. If you wish to amend or change any aspect of your research (such as research design, interventions or procedures, number of participants, participant population, informed consent document, instruments, surveys or recruiting material), you must submit the amendment to the REC for review using the current Amendment Form. You **may not initiate** any amendments or changes to your research without first obtaining written REC review and approval. The **only exception** is when it is necessary to eliminate apparent immediate hazards to participants and the REC should be immediately informed of this necessity.

6. Adverse or Unanticipated Events. Any serious adverse events, participant complaints, and all unanticipated problems that involve risks to participants or others, as well as any research related injuries, occurring at this institution or at other performance sites must be reported to Malene Fouch within **five (5) days** of discovery of the incident. You must also report any instances of serious or continuing problems, or non-compliance with the RECs requirements for protecting human research participants. The only exception to this policy is that the death of a research participant must be reported in accordance with the Stellenbosch University Research Ethics Committee Standard Operating Procedures. All reportable events should be submitted to the REC using the Serious Adverse Event Report Form.

7. Research Record Keeping. You must keep the following research related records, at a minimum, in a secure location for a minimum of five years: the REC approved research proposal and all amendments; all informed consent documents; recruiting materials; continuing review reports; adverse or unanticipated events; and all correspondence from the REC

8. Provision of Counselling or emergency support. When a dedicated counsellor or psychologist provides support to a participant without prior REC review and approval, to the extent permitted by law, such activities will not be recognised as research nor the data used in support of research. Such cases should be indicated in the progress report or final report.

9. Final reports. When you have completed (no further participant enrollment, interactions, interventions or data analysis) or stopped work on your research, you must submit a Final Report to the REC.

10. On-Site Evaluations, Inspections, or Audits. If you are notified that your research will be reviewed or audited by the sponsor or any other external agency or any internal group, you must inform the REC immediately of the impending audit/evaluation.