THE CONTOURS OF DISADVANTAGE AND ACADEMIC PROGRESS: ANALYSIS OF PERCEPTIONS OF STUDENTS FROM DISADVANTAGED SCHOOLS AT THE UNIVERSITY OF KWAZULU-NATAL

By

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DECLARATION

I declare that "THE CONTOURS OF DISADVANTAGE AND ACADEMIC PROGRESS: ANALYSIS OF PERCEPTIONS OF STUDENTS FROM DISADVANTAGED SCHOOLS AT THE UNIVERSITY OF KWAZULU-NATAL" is my own piece of work, that has not been submitted before for any degree purposes in any other university, and that all the sources that I have used have been acknowledged by means of complete references.

Signature…….

Date…….

DEDICATION

This thesis is dedicated to my grandmother and my mother: Ms Ncanyiwe Ntumbu Nkomo and Ms Agnes M. Mpofu.

LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AOIP	Academic Orientation: Institutional Provision
BA	Bachelor of Arts
BAdmin	Bachelor of Administration
BAfoeG	Bundes Ausbildungsfoerderungs Gesetz
BEd	Bachelor of Education
BCom	Bachelor of Commerce
B Pharm	Bachelor of Pharmacy
BSocSci	Bachelor of Social Science
BSc	Bachelor of Science
BFI	Budget Financial Illiteracy
CESM	Classification of Educational Subject Matter
CHE	Council on Higher Education
CHES	Centre for Higher Education Studies
CHET	Centre for Higher Education Transformation
DHET	Department of Higher Education and Training
DoE	Department of Education
DoL	Department of Labour
DMI	Division of Management Information
DOSH	Department of Student Housing
DRC	Democratic Republic of Congo
DUT	Durban University of Technology
DVD	Digital Video Disc
EQ	Emotional Intelligence
FEO	Fair Equality of Opportunity
FFOE	Fair Formal Equality of Opportunity

FSCW	Friendship as Socio-cultural Wealth
GPA	Grade Point Average
HEIs	Higher Education Institutions
HEMIS	Higher Education Management Information System
HIV	Human Immunodeficiency Virus
HSRC	Human Sciences Research Council
ICT	Information and Communications Technology
KZNDoE	KwaZulu-Natal Department of Education
KZN	KwaZulu-Natal
LAN	Local Area Network
LLCs	Living Learning Centres
LSAI	Lack of Social and Academic Integration
LSESS	Low Socioeconomic Status of Schools
MDU	Material Deprivation at University
M2U	Motivation to Come to University
MbChB	Bachelor of Medicine
M&G	Mail and Guardian
MTEF	Medium Term Expenditure Framework
NCHE	National Commission on Higher Education
NNSSF	National Norms and Standards for School Funding
NPHE	National Plan on Higher Education
NSC	National Senior Certificate
NSFAS	National Student Financial Aid Scheme
ODD	Objective Downloads Data
OECD	Organisation of Economic Cooperation and Development
PEDs	Provincial Education Departments
PHSDS	Poor Households of Students from Disadvantaged Schools
PISA	Programme for International Student Assessment

PSC	Poverty-stricken Communities of Students from disadvantaged schools
SAM	Social Action Models
SET	Science, Engineering and Technology
SMS	Student Management System
SCS	Student Counseling Services
SCCT	Social Cognitive Career Theory
REU	Resource Endowment at University
RS	Researcher's Survey
REAP	Rural Education Access Programme
SABC	South African Broadcasting Corporation
SASCO	South African Student Congress
SES	Socio-Economic Status
SRC	Student Representative Council
T&LU	Teaching and Learning at University
TIMMS	Trends in Mathematics and Science Study
UCT	University of Cape Town
UK	United Kingdom
UKZN	University of KwaZulu-Natal
UNDP	United Nations Development Programme
UNISA	University of South Africa
USA	United States of America
USDS	Underpreparedness of Students from Disadvantaged Schools
VCR	Video Cassette Recorder

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ABSTRACT

The overall purpose of this study was to analyse the perceptions and experiences of students from disadvantaged schools regarding their academic progress at the University of KwaZulu-Natal (UKZN). The study focused on the students' material and social circumstances, their learning environment while at University, their connections to their home community, and their career aspirations. It set to answer three key research questions, namely: (1) what are the contours of disadvantage that can be discovered through investigating samples of students from disadvantaged schools at UKZN? (2) How do the 'contours' seem to co-occur with factors relating to academic progress? (3) What are the perceptions of students from disadvantaged schools at UKZN about their pre-university experience and the learning environment at university? The notion of disadvantage was defined using the Department of Education (DoE)'s classification of schools into the quintile system which is based on measurements of the poverty of the catchment community. Thus, this study shows that the notion of disadvantaged students in higher education can be investigated through class-based, rather than merely racially-based definitions. This study was conducted within a three-fold conceptual framework based on sustainable livelihoods approaches (SLA), social capital theory and social justice ideology. The SLA approach teaches us that livelihoods can only be understood and captured in particular contexts. This research project therefore aimed to gain a clearer understanding of such a context, in this case, the campus environment. Through the phenomenological approach of the open-ended questions in the interviews, this thesis taps into the perceptions of students themselves about their environment and how they cope. Social capital theory postulates five spheres: the academic, the social, the economic, the support, and the democratic. These were probed in both a survey of a sample of disadvantaged students, and by interviewing eight students. With regard to academic progress, the measurements used were the matric aggregate, the grade point average for salient years and programmes, and the time it took for students to graduate or dropout. Comparisons are made between the norm of students, the disadvantaged (those from low quintile schools), and those in the sample. The purpose of utilizing such measurements is to contribute to the social justice discourse about university education based on Taylor's notion of Fair Equality of Opportunity (FEO), where disadvantaged students' abilities and aspirations can best be developed and exercised, leading to the attainment of self-realization. Until disadvantaged students show academic progress that fits the norm, the contours of their disadvantage need to be continually investigated; it is hoped that the findings of this thesis will contribute to further research and concrete proposals which can be implemented to improve conditions so that students who are already disadvantaged as a result of their schooling are not further disadvantaged while at University.

CHAPTER ONE

PROBLEM STATEMENT

1.1 Introduction

This thesis investigates disadvantaged students in a higher education institution in South Africa. Although the higher education sector has been transformed in many ways in the post-1994 period, it is still dogged by many systemic problems. An influential cohort study by Scott *et al*. (2007) revealed a high dropout rate in higher education institutions. Public discussions have linked student failure to poor schooling, poverty and academic underpreparedness.

Although there are many definitions of disadvantage in sociological and educational literature (see section 1.7 on clarification of concepts), this study utilises an empirically supported definition: that of students coming from no fee schools, as classified by the Department of Education (DoE) based on Household Expenditure statistics of 2002. This was first piloted in KwaZulu-Natal (KZN) by Wilson with a decile system, which was then applied nationally in a quintile system. Based on the same data, the quintile system collated ten categories into five so that deciles 1 and 2 became quintile 1, deciles 3 and 4 became quintile 2, deciles 4 and 5 became quintile 3, and deciles 6 and 7 became quintile 4 and so on. This data allowed schools to be classified for the first time according to the relative deprivation of their catchment communities. The quintile system that will be referred to throughout this study is based on average measures of income, unemployment rates and educational levels as specified in the Expenditure Survey of 2002.

If the school data of students in a university record system is linked to this DoE classification (or to the preceding KZN version) it is possible to select a sample of students who are disadvantaged in the sense that they come from low quintile schools. To date, there is no published research utilising the school quintile system to define disadvantaged students in higher education in South Africa. This thesis, which investigates such a sample from the University of KwaZulu-Natal (UKZN), is therefore ground-breaking and novel.

At a theoretical level, linking academic progress, the material circumstances of students and the [learning] environment acknowledges that education is a "transactive socio-political process with others" (Thayer-Bacon, 2000).

1.2. Background to the Problem

Bawa (2000) notes that the problem with the South African higher education system is "its inability to speak to the needs of ordinary South Africans from whom it was largely detached". The groups from which growth in economic output is expected to come are not well provided for by the existing educational system (Scott *et al*., 2007; see CHE, 2007; Bawa, 2000; see also Ministerial Report on Transformation and Social Cohesion, 2008; Ministerial Report on NSFAS, 2010). Against this backdrop, it is important for:

> "...the mainstream academic staff who carry the major responsibility for teaching to come to terms with the profile of the student body that the sector and each institution needs to cater effectively for, in the national interest" (Scott *et al*., 2007).

Beyond understanding the profile of the student body it is important for all role players in the sector to grapple with "improving the effectiveness of the educational process in higher education as an essential element of improving graduate output" (Scott *et al*., 2007). Innovative teaching approaches are needed to accommodate student diversity. Other important factors such as financial aid and material and affective problems that influence student progression need to be confronted (Scott *et al*., 2007; Jones *et al*., 2009). It is the contention of this study that linking school (quintile) and family background, lived experience and the campus environment to student progression measures, will illuminate the inability of higher education sector "to speak to the needs of ordinary South Africans", [particularly disadvantaged students], from whom it was "largely detached" (see Bawa, 2000).

1.3 Significance of the Study

Jousse (2004:16) noted that "to be fit to guide the development of the whole human being, without impoverishing him, it is necessary that the teacher be experientially aware of all of

the learner's anthropological 'potentialities', which seek to blossom forth. This is precisely the role of an educator: to make them blossom forth, to lead out from within".

To 'guide the development of the whole human being' one should understand the social, economic, material and cultural contexts of the participants (the students from disadvantaged schools) who are the focus of this study; and also have a "close and comprehensive acquaintance with the environment" (Blumer, 1969) that these participants find themselves in (the university). Secondly, 'to be experientially aware of all these students' anthropological 'potentialities' (for example, their perceptions of their tertiary learning, their career aspirations, and uplifting their communities) which seek to blossom'; one has to understand the 'lived experiences' of these students. This encapsulates the main objective of this study, which is to investigate the perceptions and (lived) experiences of students from disadvantaged schools in higher education institutions in South Africa (using UKZN as a case study) which may have an impact on their academic progress.

1.4 Purpose of the Study

The overall purpose of this study was to analyse the perceptions and experiences of students from disadvantaged schools regarding their academic progress at UKZN. These perceptions and experiences specifically relate to:

a) the students' learning environment;

b) their material circumstances while at university;

c) their social circumstances while at university;

d) their connections to their home community;

e) their career aspirations; etc.

It should be noted that the researcher approached the study with an open mind, given the variables contours of disadvantage presented in the literature. These are discussed in the next chapter.

1.4.1 Objectives of the Study

The main objective of this study is to investigate the perceptions and experiences of disadvantaged students at UKZN regarding the influence of socio-economic variables, material circumstances and the learning environment on their academic progress. The specific aims/or objectives of this study were:

1. To investigate data about disadvantaged students and their academic progress available from Student Management Systems (SMS);
2. To analyse the relationship between socio-economic factors and the learning experiences of disadvantaged students at UKZN; and
3. To analyse perceptions of disadvantaged students with regard to their pre-university experience and the learning at university.

After analysing the responses of the students, it should be possible to make recommendations to improve the university and learning environment for these students.

1.5 Key Research Questions of the Study

1. What are the contours of disadvantage that can be discovered through investigating a sample of students from disadvantaged schools at UKZN?
2. How do the 'contours' co-occur with factors relating to academic progress?
3. What are the perceptions of students from disadvantaged schools at UKZN about their pre-university experience and the learning environment at university?

Experiential awareness "of all of the learner's anthropological 'potentialities" will profile the student body in the higher education sector not necessarily in terms of race and gender, but also in the class-based classifications employed in the quintile system. This will assist in understanding disadvantage in higher education institutions in South Africa. I myself am a disadvantaged student who has experienced some the factors affecting low quintile students' academic progress. In 2006 I worked with the Dean of Management Studies at UKZN who introduced me to my PhD supervisor, who was doing research into attrition in her Faculty. Her idea was that I could strengthen this research through a PhD study. The assumption is that an understanding of student disadvantage can lead to improved academic through-put (see also section 1.1, introduction and 1.2 on the background to this study).

Prior to conducting this study, I had some idea of the possible factors of disadvantage. Living on campus, I was immersed in the environment, which allowed for contextual questioning and theorizing of the phenomena understudy. This contributed to some of the questions in my survey, such as those on transport and food and the like. Other questions, particularly those on family background, arose from the international literature.

1.6 Theoretical and Conceptual Frameworks

Research occurs in social, historical, economic, material, political and other contexts. This premise is consistent with Habermas' thinking that knowledge does not exist in isolation to be discovered; rather, it is constructed by people as they engage in daily life (Grundy, 1987b in Smyth, 2006). Through understanding the social, economic and cultural contexts, the learning environment, and the perceptions of the participants, the contours of disadvantage and the academic progress of students in South African higher education institutions and at UKZN in particular, could be explicated. Thus, three approaches constitute the study's theoretical framework, namely: the sustainable livelihoods approach (SLA), social capital and social justice.

1.6.1 Sustainable Livelihoods Approach (SLA) Framework1

1.6.1.1 Livelihoods

The term 'livelihoods' refers to a people's way of life, including the methods people employ to ensure their survival and how they go about fulfilling their needs (Omosa, 2002).

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[1]In its rudimentary evolution, the SLA focused on poverty reduction. It emerged as a response to the shortcomings of top-down, bureaucratic and market-oriented approaches to development discourse (Chambers, 1984, 19987, 1994; Chambers and Conway, 1992; Soones, 1998). I do not intend to go into the history of the development of the SLA, which is a well-explored area in development studies.

According to Long (1997 in Omosa, 2002), it entails striving to make a living, attempting to meet various consumption and economic needs, coping with uncertainties, responding to new opportunities and making a choice between different value positions. Livelihood is also about the management of relationships, the affirmation of personal significance and group identity and the interrelation of each of those tasks (Wallmall, 1984). It may seem unusual to apply SLA, which is normally theorized in the context of development studies, to the higher education environment. However, it can be argued that the communities sending their young people to tertiary education institutions expect that the students' 'occupation' even while at university will be sustainable and give some returns to both students and their impoverished families.

The appropriateness and suitability of the SLA framework must be judged in terms of its ability to capture the choices that households make in an attempt to meet their basic needs (see Conway, 1998; Omosa, 2002). These include the search for nourishment and identity, and the context in which these are conducted (Omosa, 2002). For instance, when disadvantaged students come to university, they need decent accommodation in university or off-campus residences. Students need accommodation that is conducive to study. They should not have to worry about where they will sleep or what they will eat (Maslow, 1970, 1987). A livelihood is sustainable when it can cope with and survive stresses and shocks and thus enhance its capacities and assets both in the present and in the future, without undermining the resource base (see Chambers and Conway, 1998) which may entail future indebtedness in the case of low quintile students.

1.6.1.2 The livelihood context

In order to understand livelihoods, the context of the population under study – their physical, social, and cultural environment – must be understood (Hebinck, 2002). A fundamental tenet of the SLA framework is that livelihood contexts are dynamic and vary considerably because they are locally specific. Thus, they are sculptured differently by people's history, and cultural, economic and political relationships and the natural environment (Omosa, 2002).

Furthermore, livelihoods can only be understood and captured in particular contexts and require a clear understanding of such a context. This allows for the identification of sources of vulnerability or its absence. In this study, the context is the environment (pre-university,

and the university) in which the lived experience and academic progress occur for disadvantaged students.

1.6.1.3 Livelihood Assets

Linked to the livelihood context are livelihood assets. In this study, these resources include physical capital (residences), social capital (peer learning, parental education, staff-student collaboration), and financial capital (bursaries, NSFAS, and loans). A combination of these assets leads to sustainable livelihoods. Thus, a holistic approach to sustainable student livelihoods should be premised on analysing assets in the context of vulnerabilities (risk to dropout), trends, shocks (for instance failing a course and dropout), and local cultural practices (in this context, how communities value education, and concomitant societal or parental investment in education[2]).

1.6.1.4 Livelihood outcomes

According to the SLA framework, the actual impact of any intervention must take into account people's expectations of the outcome of interventions under review. Thus, the framework allows for a negotiated set of indicators to measure performance and success. Indicators are derived from target beneficiaries, and are arrived at using people's own objectives (intersubjectivities, meaning having the capacity to consider other viewpoints of the same experience – see Coulter and Wiens, 2002) in pursuing certain activities (Carney, 1998; UNDP, 1999:16; see also Sen, 1981; Chambers 1988; Chambers and Conway, 1992; and Murray, 2000 who provided an expanded definition).

This approach focuses on what people (disadvantaged students) understand disadvantage to be and how to escape that disadvantage (livelihood strategies) while at university and after they have graduated.

While this approach has been applied to the study of rural poverty, in this study it provides a basis for understanding the complexity of disadvantaged students' livelihoods and academic progress while at university. Thus, the framework involved holistically linking the many ways in which disadvantaged students manage their lives (academic, social, material) while at university. It also involved consideration of the pre-university (schooling, family) processes that shape these endeavours.

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[2] Refer also to Ho (1998) cited in the literature review chapter two, section 2.3.2 Material conditions at home.

1.6.1.5 Summary of application of SLA items

Table 1: Operationalisation and application of SLA items in this study

Pre-university	**University**
Livelihood Assets	**Livelihood Assets**
1. Education of parents	1. 1st generation
2. Role model	2. Quintiles – disadvantage - Context from pre-university
3. Household income	3. Matric results - Context from pre-university
4. Sibling	4. NFSAS
5. Caregiver	5. Gender
6. Gender	6. Household income
7. Motivation from uneducated parents and teachers	8. Presence of father
Livelihood Context	**Livelihood Context**
1. Poverty of community	1. Residence & campus
2. Employment	2. Discipline
3. Quality of school levels	3. Transport
4. Cultural norms -gender	4. Food
5. Cultural norms - gender & Family size	5. Friendship
6. First generation	6. Language of learning
7.	8. Learning delivery modes
9. Absence of father	10. Institutional environment • Academic integration • Social integration
	11 Student support services
Livelihood Outcome – Academic Performance	**Livelihood Outcome - Academic progress**
	1. GPA
1. Matric results	**2.** Failing courses
	3. Graduation and dropout
	4. Length of registration

Two issues need to be highlighted. The first is that the context in pre-university becomes asset in the university stage. For instance, quintile (defined as poverty of community, employment levels, income level and literacy level of the community) is an asset at the university stage as it is used as a means test for financial allocations at university. Matric, for instance, which is an outcome at the pre-university stage, is also an asset at the university stage as it impacts on academic progress of low quintile students. Further, context and assets are interlinked hence the 'conceptual' somersaulting of context and assets between pre-university and university continuums in the academic cycle of students under study.

Meanwhile personality factors such as confidence could not be classified as context or assets but are the fit and misfit of personal preference, for example learning styles with learning environment available shape outcomes (as also captured by Vermunt, 2005). Thus, the classification used in table 1 is not a one size fits all but an illustration of the complexity and uncertainties associated with trying to explain social phenomenon. However, the categorisation in table 1 above will help us focus my interpretation and apply SLA approach consistently in the context of this study.

1.6.2 Social Capital

The impetus for the social capital approach in this study is its promise to promote learning amongst socially excluded communities (McCenaghan, 2000; Field and Schuller, 1997; Schuller and Bamford, 2000; Preece, 1999). Furthermore, it helped me understand the complex relationships between resources based on social networks and educational achievement (see Dika and Singh, 2002) which this thesis managed to engage. Thomas (2002) depicts social capital as the 'glue' which has moved individuals and communities from exclusion to participation [within higher education]. Halpern (1998) observed that:

> "the creation of trust is as important as the acquiring of information and answers, as is the building of social capital so that the excluded can shape their own solutions rather than them delivered from above".

This is in keeping with the SLA tenet of a bottom-up approach which values the voices of underprivileged groups of people.

According to Thomas (2002) social capital:

> "...refer to social networks, relationships and contacts, often based on norms and shared values, and which can be used to provide support and access to other opportunities".

The notion of social capital has been defined variously by different scholars (McCenaghan, 2000; Field and Schuller, 1997; Schuller and Bamford, 2000). This body of research has evolved from the work of James Coleman (1998) and Robert Putnam (1993), and Bourdieu's (1986) notions of capital. For, Morrow (1999) social capital is "...a resource derived from people's social ties", which, as opposed to the science of statics, accumulates with use rather than diminishing (see Thomas, 2002). For Portes (1998) social capital means the "ability of actors to secure benefits by virtue of membership in social networks or other social structures". For example, implementing mentorship programmes result in improved enrolments for low-SES students and thus increasing their networks. This said, an expanded social network of actors allows for greater access to information and resources they need to be successful (see Dika and Singh, 2002).

Drawing on Thomas' typology, the concept of social capital underscores the benefits and the creation of social capital in five spheres: Social capital in the academic sphere; social capital in the economic sphere; social capital in the social sphere; social capital in the support sphere; and social capital in the democratic sphere. Table 2 below provides a synopsis of the use and benefits of social capital in these spheres. It is within these five spheres that the findings of this study will be interpreted.

Table 2: Some examples of the Creation and Benefits of Social Capital within Higher Education

Sphere	Creation of social capital	Benefits of social capital
Academic	Pre-entry preparation Induction – institutional knowledge Learning skills Inclusive curriculum Group work Formative assessment Formal and informal staff/student exchanges (e.g. tutors, chats etc)	Aware of the norms, values and practices of academia Networks provide opportunities to discuss learning with peers and teaching staff and so enhance/deepen learning Increased confidence and better relationships enable students to seek assistance with difficulties and so improve subject knowledge Increased understanding, confidence and subject knowledge facilitates challenge of elitism
Economic	Workshops and information about funding and employment opportunities Increased income facilitates socialisation Employment provides opportunities to meet people and extend networks Employment within the Institution develops institutional knowledge Part-time employment develops insight into labour market (e.g. post-graduation)	Learn about bursaries etc which are available, and how to apply Live with others and share the cost of accommodation Organise lower cost social activities Find out about employment opportunities Travel to work with friends and reduce costs
Social	Joining organised activities Informal social activities/spaces Shared accommodation	Friendship and support Feeling of "belonging" Eases transition Provide source of accessible information Know where to go to socialise and meet people
Student services/support	Volunteering and supporting others – e.g. mentoring, outreach work etc Relationships with staff and students	Know what support is available and where Confidence to access support
Democratic	Participation in HEI and Students Union democratic systems, e.g.Course rep, Union meetings, Union officers Peer proctoring	Promotes ownership Provides an opportunity to have a say Chance to change things to meet needs of more diverse student body

Source: Thomas, L. (2002). Building social capital to improve student success BERA Conference, September 2002, Institute of Access Studies, University of Exeter.

This study does not use all the variables that appear in Table 2 above. I have focused on those that have a bearing on this study.

1.6.3 Social Justice

The purpose of education policy should be to level the playing field in terms of school opportunities and outcomes. To unpack this discourse, I outline Taylor's (2009) modified version of Nagel's (1973) taxonomy consisting of five affirmative-action categories ranging from weakest to strongest. This is a useful tool to understand the levelling of disparities in school opportunities and outcomes and in society in general. I have rejected the Rawlsian thesis of social justice because it speaks of justice only in terms of fairness in the context of a situation of equality as negotiated by individuals who are in the same position; an ideal society rather than an unjust society like South Africa. South Africa is an unjust society as is exemplified by its number one ranking in the inequality scale with a Gini Coefficient of 0.59, one of the highest in the world (Leibbrandt, M. et al. 2010).

Category 1. Formal Equality of Opportunity: careers open to talents, requiring *inter alia* the eradication of legal barriers to persons of colour, women, etc as well as the punishment of private discrimination against them.

Category 2. Aggressive Formal Equality of Opportunity: self-conscious impartiality achieved through sensitivity training, external monitoring and enforcement, outreach efforts, etc, to supplement category 1.

Category 3. Compensating Support: special training programmes, financial backing, day-care centres, apprenticeships, or tutoring, all designed to compensate for colour- or gender-based disadvantages in preparation, social support, etc. This helps recipients compete more effectively for university admission or employment.

Category 4. Soft Quotas: compensatory discrimination in the selection process, such as adding bonus points to the selection indices of persons of colour or women in the college admissions or hiring processes, without the use of explicit quotas.

Category 5. Hard Quotas: admission [or hiring] quotas, proportional to the representation of a given [historically oppressed] group in the population (Taylor, 2009).

I endorse the idea that these measures should be implemented discriminately rather than across the board. Taylor (2009) asserts that, within this class of public policies, some will be stronger or more aggressive than others depending on historical contingencies such as

systemic racial segregation as in the case of South Africa or *caste-based discrimination in India* (italics mine). Moreover, Equal opportunities require policies that deal with the root cause of such legacies and thereby strive to rectify and ultimately eliminate the social disadvantages of gender, race, and low SES. Given this, (Taylor, 2009) is of the opinion that we must adopt stronger kinds of affirmative action (categories 3–5), all of which violate the Rawlsian notion of formal equality of opportunity and are more consistent with the notion of FEO (Fair Equality of Opportunity).

The essential tenet of FEO is to unleash citizens' natural abilities and ambitions so that they are able to compete effectively for offices and positions in the basic structure, a social space where those abilities and aspirations can best be developed and exercised, leading to self-realization (Taylor, 2009). Such liberation can only occur if the social contingencies of family, class, race, gender, etc are effectively neutralized. Category 3 interventions all serve this purpose and are thus consistent with the spirit of FEO, including:

"1. Training: to counterbalance the effects of poor schools through preparation classes, co-op programs, and so forth.

2. Mentoring: to counteract the results of unsupportive or ill-informed parents, neighbours, and peers through Big Brother/Big Sister-style programs, vocational counselling, and so forth; and

3. Funding: to compensate for financial disabilities through scholarships and fellowships, grants for professional wardrobes, and so forth" (Taylor, 2009).

[Higher] education policy should focus on the equalisation of disparities in school opportunities. Inequalities in educational opportunities engender job market disparities (see Branson, Leibbrandt and Zuze, 2009) that affect an individual's earning potential and ability to become economically self-sufficient (Hernandez, 1994; Levy and Murhane 1992; Sorensan, 1994; Wilson, 1987 in Desimone, 2007). According to Hochschild (1981) and Tocqueville (1994), inequalities are only acceptable to the degree that opportunity is perceived as equitable. Thus, the goal of education is to ensure that rewards are distributed on the basis of achievement and not ascriptive processes (Desimone, 2007). If these inequalities are not minimalised, social inequalities persist, become systematically programmed in our educational achievements and systems and are channelled into social class positions similar to those of students' parents, producing a vicious circle. To avoid this, upward mobility should be based on inherent talent and concerted effort rather than on good luck and the

favour of the ruling classes (Livingstone, 1999). Thus, it is not biology or genetics which are at stake here, but a focus on providing the right environment for students of all races, classes and creeds to have fair formal-equality of opportunity. I prefer a synthesis of the Taylorian concepts to the extent that formal equality can only be fair only through the intervention of the state to create rules and institutions that facilitate these transactions. Thus, given current disparities, this cannot be left to the market.

1.6.4 Synthesis: SLA – Social Capital – Social Justice Framework

The SLA framework is employed in this study to underscore the importance of students' voices in terms of their experiences, expectations and aspirations in higher education, while also upholding the empirical facts about underprivileged groups. Social capital theories emphasise all the spheres that could impact on student achievement or academic progress at the micro-, mezzo- and macro- levels. Social justice focuses on policy and practice in order to eliminate the identified contours of disadvantage faced by disadvantaged students in higher education.

Each of the variables appearing in this study have been divided into the three fundamental tenets of the SLA approach namely: livelihood assets, livelihood context and livelihood outcomes (see table 1). The rationale for dividing variables this way is to give the analysis structure and how each of the variables under analysis formed part of my conceptual framework. On the other hand, social capital theory mainly appears in the text when illuminating the findings (see for instance chapter 6 at the end of each section, and other chapters of course). As indicated elsewhere, the social justice ideology was mainly used in chapter seven on the recommendations.

It should be noted, however, that the theories discussed above in this theoretical framework, are based on sociological, rather than educational theory. The focus of this thesis is not a close analysis of the learning process of students but rather on the socio-economic and material conditions of disadvantaged students at university. If the focus was strictly on educational processes, I would have asked more questions pertaining to learning and teaching, and would have extended the research questions about curricula and surveys of teaching staff, using a methodology based on educational theories of learning.

1.7 Clarification of Concepts

Having explained the underlying sociological theories that shape this research, it is necessary to scrutinize more closely the actual concepts that are used in the investigation.

1.7.1 The Notion of 'Disadvantage'

The notion of disadvantage is described differently in different contexts (Spicker, 2010; Mayer, 2003; Brownand Madge, 1983; Finch, 1984; Berends, Lucas, Sullivan and Briggs, 2005). In some contexts the notion of disadvantage is used to refer to essentialist variables such as race, gender and the like. For instance, Spicker (2010) observed that:

> "racial discrimination refers to the deliberate use of adverse selection as a means of putting people from particular racial or ethnic groups in an inferior position...the effect of denying access to the resources, opportunities and conditions of life available to others are to make the experience of disadvantage worse".

This definition includes economic disadvantages.

A corollary to Spicker is Mayer (2003)'s observation that "a disadvantaged group is defined by the particular pattern of denied resources and barriers it faces". This definition does not use race, poverty, or gender as its point of departure. Rather, it relates to progression to self-sufficiency; that is, if constraints are removed, noting further that the solutions would vary from group to group (see Mayer, 2003).

Spicker (2010) also noted educational disadvantage, which he defined from a structural perspective, whereby class disadvantages and poverty are reflected in educational attainment through a combination of home and school factors (see also Berends *et al.*, 2005) Thus, the notion of disadvantage in international literature encapsulates the following variables:

- "Pathological views. Pathological explanations relate to individual characteristics or behaviour. Some writers take the view that as intelligence is largely genetically determined, no amount of education is likely to make a difference in achieved performance;

- Home based factors. Material deprivation affects schooling through poor health, lack of resources (like books and toys) and lack of facilities (like a quiet space for study). Family size and environment can affect the degree of stimulation a child receives and so development; and

- School factors. Disadvantage may arise from the failure of schools to respond to needs. Problems include low resources, limited curriculum, and low teacher expectations..." (Spicker, 2010).

- "Transmitted deprivation. Poor educational attainment is sometimes attributed to upbringing. Studies of intergenerational continuity have found that, contrary to 'common sense' opinion, most children of disadvantaged parents are not themselves subsequently disadvantaged" (Brown and Madge, 1983 in Spicker, 2010).

In South Africa, pre- and post- apartheid definitions of disadvantage include racial discrimination, which resulted in socio-economic and cultural disadvantage in terms of access (to resources and education) and participation in the economic and political spheres of life. However, in the post-apartheid period, the notion of disadvantage includes class discrimination, a form of discrimination perceived by the participants in this study.

It should be noted that whereas some of the aspects of disadvantage listed above will surface during discussion, the term 'disadvantage' in this thesis is tightly defined as a sample of students from low quintile schools as explained in the next section.

1.7.2 Disadvantaged Schools

According to the South African Schools Act (Act No 84 of 1996 Section 39) schools defined in the schedule may not charge school fees for the school year designated by the Act. To facilitate this process, this Act provides for the creation of the National Norms and Standards for School Funding (NNSSF). The NNSSF sets out guidelines on factors that should be considered in the classification/categorization of schools. The November 2004 proposals to amend the NNSSF by the National Department of Education recommended three fundamental issues depicted in Table 3 below.

Table 3: Three Key Areas of the Amended Norms and Standards for Schools Funding

1. Determining SFN Allocation	2. Utilisation of the Allocation	3. School Fee Exemptions
• Address inequities across the country in terms of allocations. • Simpler and more accurate method of gauging poverty. • Only consider the community around the school when determining poverty. • Focus on income levels as a gauge of poverty. • Provincial departments to meet monetary per learner targets.	• Clearer specifications for the intended use of the allocation. • Change in the allocations provided to schools. • Improvement in the accounting of expenditure by schools and PEDs[3]. • Within the MTEF[4] inform schools 3 years of allocations.	• Introduction of No Fee Schools. • Extensions of automatic exemptions to orphans and those receiving social grants. • Restructure calculations used to determine partial exemption. • Consider households with more than one learner. • Strengthen systems monitoring fee exemptions.

Source: Adapted from Heard & Wilson, 2006

1.7.3 Deciles and Quintiles

While deciles were used when I initially embarked on this study, I switched to quintiles when these became available on the DoE website.

To identify and categorise or classify schools in terms of their level of poverty, a matrix was developed initially at provincial level in KZN. When I started the study deciles (an antecedent of quintiles) were used by the KwaZulu-Natal Department of Education (KZNDoE). Schools were divided into 10 groups, with the best-off being in decile 10. The

[3] PED stands for Provincial Education Departments.

[4]MTEF stands for Medium Term Expenditure Framework.

matrix quintile uses the same principle as the deciles; however quintiles are out of 5. All schools are divided into five groups, with the best-off being in quintile 5. The quintile classification indicates the level of poverty of the school, thus, the lower the quintile the more under-resourced is the school's catchment area, as revealed by the 2002 Household Expenditure Survey. Community poverty, as opposed to school infrastructure, defines the poverty of the catchment area of the school. Community poverty is measured by income level (per capita income), dependency ratio, functional literacy, and unemployment rates. In this study the term 'disadvantaged' or 'poor' is measured by the quintile as it relates to the poverty of the community in which the school is situated. UKZN generally admits students from all quintiles; however the access programme only accommodates students from quintiles 1-3. If the old deciles are used, these UKZN students come from deciles 1-6. It should be noted that the quintiles have been adopted at national level so that the NNSSF are applied uniformly, and all the schools falling into the same category in the different provinces receive the same treatment in terms of school funding. In this study for the survey data in chapter five, I used students from quintiles 1-3 (see also research methodology, chapter 3). However, recent studies on the quintile system showed that it was not effective because the middle quintiles, 3 and 4 were ranked as better off than the lower quintiles, 1 and 2, while some were worse off or more poor than quintiles 1 and 2. This meant that they were disadvantaged in terms of funding allocations (see Kanjee and Chudgar, 2009).

1.7.4 Disadvantaged Students

The focus of this study is disadvantaged students at UKZN. The operational definition of disadvantaged students is drawn from a new classification by the South African Department of Education (DoE). 'Disadvantaged' students are conceptualized as black African students coming from poor schools placed in quintiles 1 through 3 according to the DoE's classification as provided by the South African Schools Act (Number 84 of 1996, section 39) National Norms and Standards of Funding poor schools ['no fee schools'] (see Heard & Wilson, 2006).

The concept of 'disadvantaged student' will have different interpretations in different contexts. In some contexts, the concepts of 'cultural minority' and 'ethnic minority' are

invoked to describe the disadvantaged. However, in the South African context these concepts would be problematic, given that the majority of the people in this country are still marginalised. This marginalisation is fundamentally related to socio-economic issues. The majority of South Africa's population was subjected to the unjust laws imposed by apartheid. In the South African context, 'disadvantaged' would refer to black students who because of apartheid were denied access to resources such as proper schooling. There was virtually no upward mobility and advancement for blacks. While much of the debate about 'disadvantaged students' utilizes a broader, more historic sense of the term 'disadvantaged' that encompass students schools other than No-Fee schools, this thesis adopts an operational definition of disadvantaged students as those coming from the No-Fee school category because a sample of such students could be identified *via* UKZN's Student Management System (SMS) which collects data on which school a student comes from.

In international literature, disadvantaged students are those whose family, or social, or economic circumstances hinder their ability to learn at school. Terms that describe this variable are used interchangeably and include:

Academically Disadvantaged Students;

Educational Disadvantaged;

Educationally Deprived Students; and

Underprivileged Students (Berends *et al*., 2005).

Other definitions incorporate a financial proxy. For instance, the Texas Education Agency (TEA) defines students as 'economically disadvantaged' if they receive free or reduced-price school lunches, or if they qualify for other public assistance (see Berends *et al*., 2005).

1.7.5 Academic Progress

Academic progress indicators are sourced from the SMS and from the Centre for Higher Education Studies (CHES) in an SPS system which enables new variables to be created (see below).

The SMS statistics include Matric grades and scores. Grades and scores in each Matric subject have been calculated using the 'Swedish formula' to provide the overall score. All universities in South Africa use a Swedish rating system to quantify an applicant's performance in a South African school-leaving examination and hence to decide whether a student is eligible for admission. Matric point scores are calculated using a student's six best symbols, with a distinction being made between subjects written at the higher grade (for students wishing to proceed with tertiary studies) and standard grade. It should be noted that the new curriculum introduced in South Africa at the beginning of 2008 did away with this distinction. Every year, the SMS collects the student's cumulative grade point average (GPA) which is the average score gained per credit. The formula for calculating the average GPA is:

For each module take the student's score and multiply it by the academic credits for the course; this provides a weighted score. It is necessary to do this course by course because courses have different academic credit weightings. Add the weighted scores for each student and divide by the total number of academic credits that the student registered for, for each semester. This equals the average GPA. The SMS also indicates the date of registration, so that the length of time a student has been registered can be calculated and the credits gained in that time can be ascertained. Both of these can be used to measure academic progress.

Following Scott (2007)'s seminal study, cohort progression studies are salient. Using the date of registration and graduation from the SMS, the CHES database has been able to create variables for time taken to graduate (cohort progression) as well as drop-out counts. Thus, it is possible to compare the performance (GPA) and progress of disadvantaged students with other students in the same cohort and programme. As each programme (by qualification and Faculty) has different academic performance norms, it is better to differentiate these in the statistics rather than perform global sweeps across all programmes

1.7.6 Social Integration

Definitions of social integration are quite diverse (United Nations Research Institute for Social Development - UNRISD, 1994; Commins, 1993; Pascarella & Terenzini, 1991; Tinto, 1987). According to UNRISD (1994) social integration can be conceptualised in three different ways, namely:

> "...an inclusionary goal, implying equal opportunities and rights for all human beings. In this case, becoming more integrated implies improving life chances; increasing integration has a negative connotation, conjuring up the image of an unwanted imposition of uniformity; the term does not necessarily imply either a positive or a negative state. It is simply a way of describing the established patterns of human relations in any given society".

Further, UNRISD (1994) depicted social integration as an inclusionary goal. It then becomes a broad-ranging synonym for greater justice, equality, material well-being and democratic freedom.

In the context of higher education, social integration can be understood as "having family and friends, neighbours and social networks to provide care and companionship and moral support when these are needed" (Commins, 1993). Social integration also means being able to avail oneself of the social services provided by the state (Commins, 1993, cited in Berghman, 1995).

For Pascarella & Terenzini (1991) the term [social] "integration can be understood to refer to the extent to which the individual shares the normative attitudes and values of peers and faculty in the institution and abides by the formal and informal structural requirements for membership in that community or in the subgroups of which the individual is a part".

Tinto (1987), on the other hand, noted that "eventual persistence requires that individuals make the transition to college and become incorporated into the on-going social and intellectual life of the college" wherein incorporation is akin to integration. All these definitions assume a normative progression within a system and improved chances of survival. These definitions go beyond internal institutional boundaries to include exogenous factors or a set of networks within and outside of the institution.

1.7.7 Academic integration

With respect to the academic system of a college, an individual's integration is measured by both grade performance and intellectual development. Grade performance relates directly to meeting certain imputed standards of the academic system. Intellectual development relates

to the individual's identification with the norms of the academic system (Pascarella *et al.*, 2005; Tinto, 1987).

Students who persevere with their studies are more likely than dropouts to value their college education as a process of gaining knowledge and appreciating ideas than as a process of simply vocational development (Thomas, 2002). Academic integration means the valorisation of one's knowledge, a gamut of previous experiences and the means of expressing oneself. This might be confirmed through the curriculum, the pedagogy, and the assessment structure (Thomas, 2002). Thus, academic integration leads to enhanced relationships with students and staff which in turn enhance intellectual development.

1.8 Research Methodology

As noted earlier, the focus of this study is the perceptions and experiences of disadvantaged students at UKZN. The study sought to link academic progress, lived experience and the environment at UKZN. Data collection methods included objective downloads data (ODD) about disadvantaged students and their academic progress available from SMS and the researcher's survey (RS) with open-ended and digitally recorded interviews and a questionnaire. The study therefore involved mixed methods research, which emphasised complementarity, development and triangulation. Both quantitative and qualitative methods were used to analyse data. A more detailed discussion of data collection methods is provided in chapter 3.

From a quantitative approach variables from the ODD and RS were analysed using correlations, T-tests, and ANOVA tests. Interviews were used to elicit more detailed accounts of student experiences in terms of socio-economic, material and learning environment (pre-university and university). The results from interviews with students are analysed in Chapter 6, while those relating to quantitative data are provided in Chapters 4 and 5.

1.8.1 Sampling frame

Undergraduate students were selected from a list of disadvantaged students for the period 2007 – 2009/10. The method of selection was purposive sampling. Park (1993: 326), cites Sharan B. Meriam 1988 who referred to purposive sampling as " ...based on the assumption

that one wants to discover, understand, gain insight; therefore one needs to select a sample from which one can learn the most".

A sample of 41 students coming from quintiles 1 through 3 across Faculties and disciplines was selected. Data about these students were obtained directly from UKZN's Division of Management Information Division (DMI) as well as from the SPS data from CHES utilizing DMI downloads. Caution was exercised to ascertain whether these students were really from disadvantaged backgrounds by aligning the school name with the classification in the DoE listings. The CHES files also included the quintile variable along with all the other bio-data, making it possible to do a statistical comparison of the sample with similar categories in the main, large data-base (see chapter 4). Furthermore, the study also focused on the social and material aspects revealed by the many variables in the literature (see chapter two).

1.9 Limitations and delimitations

A major limitation of the study was the inability to obtain a large sample of students for the survey within UKZN along with considerable difficulty in obtaining a cross-section. Those interviewed mostly came from the Westville campus (where I stay), so most of them were Management Studies or Science students. The study lacks depth in terms of educational investigation, which may be blamed on my background (social science, development studies), hence my emphasis on the socio-economic aspects of higher education.

1.10 Ethical Issues in this Study

This study focused on potentially sensitive areas such as the academic records of students and poverty. It was extremely difficult to persuade disadvantaged students to participate in this study. However, the student trends data outlined in chapter four was used anonymously, and I was able to match academic records with student numbers.

1.11 Structure of chapters

Chapter one outlines the problem statement and the theoretical framework of this study. In chapter two, a focused literature survey of the variables presented in the questionnaire and other variables arising from the analysis of the open section of the survey questionnaire and interview data is explored. Chapter three deals with the study design. In chapter four, an analysis of disadvantaged students' performance at UKZN is discussed. Chapter five focuses on the analysis of survey responses. In chapter six the interview data is analysed. Chapter 7 focuses on the findings, conclusions and recommendations for further research.

CHAPTER TWO

LITERATURE SURVEY OF RESEARCH INTO DISADVANTAGE IN HIGHER EDUCATION

2.1 Introduction

This chapter explores the literature on the socio-economic status (SES) variables that affect students' academic progress at university. It also outlines features within the university environment that support or hinder student well-being. This study set out to answer three research questions about the socio-economic and learning circumstances of disadvantaged students. The first question related to the contours of disadvantage from the sample of students from disadvantaged schools; the second was to ascertain whether these contours of disadvantage (which relate to socio-economic status before coming to university and the learning environment at university) were related to academic progress; and the final question related to an in-depth probe of perceptions of a small sample of students about their experience during pre-university and at university.

South African and international literature on higher education has drawn a link between socio-economic status and academic progress, and career pursuits after graduation. The relationship between and amongst these variables has been explained in terms of social capital theories with the main thrust being to delineate how SES factors are experienced in different aspects of students' lives at university. The SLA approach helps us to hear marginalised voices by focusing on how they experience disadvantage and what they think could be possible solutions to their problems. I engaged the notion of social justice to underscore the importance of educational interventions which are informed by strategies from below (bottom-up approach) and thereby help to put an end to educational disadvantage in higher education.

2.2 Livelihood Assets: Pre-university Stage

2.2.2 Social Wealth (social capital) and Academic Progress: Pre-university

Academic achievement, progress or success should not be viewed from a narrow reductionist or linear approach that postulates that success only flows from resource endowment but from a social capital perspective which emphasises social cooperation or 'community' (see Coleman 1994). The most important tenets of social capital are networks, norms, social trust and reciprocity, which facilitate coordination and cooperation for mutual benefit (Putnam, 1995). The relevance of this social capital philosophy to this discussion is that students from disadvantaged schools' propensity to attend university is hinged on social capital such as their parents' educational level, teachers' motivation, access to information about possible student funding and the functional literacy of their communities (social wealth). The issue here is the environment, rather than resource endowment, where individuals, poor or rich, can be afforded equal and equitable opportunities to improve themselves (see chapter seven on levelling disparities through fair formal equality).

2.2.2.1 Educational Level of Caregivers and Parents

Extensive extant literature demonstrates that there is significant relationship between academic success or progress and a father's presence (particularly a father's educational level) in a student or learner's life (Marjoribanks, 1998; Coleman, 1988, 1993). Marjoribanks (1998) observed that a father's education was significantly associated with the odds of attending university. Thus, family conditions would be related to the likelihood of university attendance and *therefore epistemic success* (Marjoribanks, 1998, italics mine). The most important of these factors are the quality of relationships within the family and the interest and expectations parents have for their children's education (Tinto, 1975).

From a social capital perspective, human capital (in this case a father's education) provides possibilities for creating a supportive learning environment at home and is indexed by parental education (see Coleman 1988, 1993). A father's socio-economic status (SES) is a better predictor of senior certificate or high school completion and therefore university

attendance (Cardak and Ryan, 2006). In this respect, it appears that parental expectations may have as much influence on the child's persistence in college as the child's own expectations for him/herself (Hackman & Dysinger, 1970).College persisters are more likely to come from families whose parents are well educated (Spady, 1971). However, the elevation of the influence of the father figure on educational achievements based on social capital approaches needs to be approached with caution. This leans towards patriarchy and down-plays matrilineal factors. However, this does not repudiate the role of a father in the educational attainment of children *per se*.

Evidence from a body of studies notes the often neglected element in the long-term impact of post-secondary education, the intergenerational transmission of benefits. In their 1991 synthesis of evidence, Pascarella and Terenzini (2005) found that the net benefits of higher education or college education are not restricted to the person who attends college but are passed on to their offspring. Having parents who have completed tertiary education enhances an individual's educational achievements, job status, early career earnings, and for women the possibility of entering a financially rewarding, male-dominated occupation (Pascarella and Terenzini, 2005; see also Gorard and See 2008). Furthermore, Pascarella and Terenzini, 2005) observed that certain within-university or college experiences could be more important for first-generation university students than for students whose parents attended university. For instance, first-generation students accumulated greater benefits in learning (as measured by critical thinking skills) from full-time enrolment and their study effort exceeds that of other students (Pascarella and Terenzini, 2005). They also seem to realize greater gains than other students "in locus of attribution of academic success" from university experience over the first three years of college, such as academic effort, extracurricular involvement and subjects in different areas (*ibid*).

A number of studies indicate that human capital in the form of a father's education is directly related to the odds that the student will attend university (Marjoribanks, 1998 on the Australian experience; Tinto, 1975 on the North American situation; Royal Society, 2008 on British experience). The differences between the findings of this study and extant literature is accounted for by the fact that even though social capital (in this case a father's education) is significantly associated with academic success or the odds that one will attend university, individuals' learning environments and their disposition adjudicate the nature of that particular association (see Bourdieu, 1984; Tinto, 1975). To further unpack this seemingly

complex issue, Berends *et al*. (2005, cited in Gorard and See, 2008) caution that "some of these studies use perceptions of students' ability, rather than their actual performance, and no direct measure of SES, so education could be used as a proxy for SES rather than an explanation". While, parental education (a human capital measure) has been used in sociological models of school achievement, most of these studies have elevated the education of a father above that of a mother. Moreover, the resources emphasized in these sociological models have been human capital and material resources (see Buchmann and Hannum, 2001). Contrary to these sociological models, as evident in literature surveyed in this chapter, factors that are traditionally outside the realm of material, human, social, and cultural resources may be particularly important in developing an understanding of country contexts.

2.2.2.2 Socialisation

Parents are perceived as a source of information and a major influence on whether a child will attend university or not. The lack of parental influence (in terms of educational attainment and income) is a disadvantage for some students (see Feinstein *et al*., 2004). There is an assumption of the inheritability of 'talent', not in the biological sense of inheritance but the social funnelling of information to children. Thus, "if parents are talented (in educational attainment terms) ... they may be more likely to have higher levels of attainment and income, and they may be more likely to pass this talent on to their children" (Gorard and See, 2008). In similar vein, "the income and education of parents impact on their beliefs, values, aspirations and attitudes, and these are 'transmitted' to their children via proximal interaction" (Gorard and See, 2008). The implication is that it is not strictly about biology but about the socialization of the young.

2.3 Livelihood Assets: Pre-university and University Stages

2.3.1 Gender and Social Capital

In South Africa women constituted 53% in 2000 and 55.5% in 2007 of students enrolled in higher education (Shackleton *et al*., 2006; DoE, 2003; CHE, 2009). The higher education

policy environment is supportive of both gender equality and equity (Shackleton *et al*., 2006). Despite the increase in women's enrolment, access remains a complex scenario affected by a gamut of factors such as poverty, social class, race and preparedness for higher education (Shackleton *et al*., 2006). Women in higher education institutions tend to cluster in certain disciplines such as health sciences and the humanities (Shackleton *et al*., 2006).

In disciplines like engineering, it has been found that women students coped through determination and support from peer-groups and family (*ibid*). This corresponds with social capital studies which found that the educational level of a father is important for the success of students in general and female students in particular (Shackleton *et al*., 2006; see Coleman, 1988). Male students have been found to devote significantly less time to private study than their female counterparts (Arquero *et al*., 2009). Riegle-Crumb, (2010) also noted that in the USA girls' superior academic performance in high school was an important reason for their subsequent gender advantage in four-year college attendance, particularly for Hispanic students. In South Africa studies have noted that while more women are enrolled in higher education institutions, male students have always performed better than females (Cosser and du Toit, 2002; HSRC, 2004). Conversely, a study by Noorand Azmah (2006) found that female students outperformed their male counterparts and cited prior academic ability as the reason for this.

Gender differences are also related to assets in terms of social capital. Riegle-Crumb (2010) compared co-ethnic male peers to their Hispanic and white counterparts in the USA and observed that girls who had greater levels of social capital, such as more academically-focused friendship groups in high school, experienced high rates of college attendance. However, the fact that girls consulted with their high school counsellors about college more than boys appears to contribute to the female advantage only for Hispanic students (Riegle-Crumb, 2010).

Reflecting on the interaction between student characteristics and various within-college effects, Pascarella and Terenzini (2005) observed that "engaging in volunteer work during college as well as coursework in the natural sciences and humanities may have stronger positive effects of measures of learning (such as reading and comprehension) and general cognitive development (such as critical thinking) for men than for women". They added that men tend to incur a larger deficit in the growth of critical thinking in their first year of college

from fraternity membership than women do with sorority membership. Women tend to derive more cognitive growth (such as critical thinking and reflective thinking) than men from work experiences and living on campus during their university or college life (Pascarella and Terenzini, 2005).

2.4 Livelihood Context: Pre-university

2.4.1 School SES and Academic Progress

The international literature demonstrates that school background matters when it comes to academic achievement in East Asia, the USA and Western Europe (Ho, 2003; Fuchs and Wobmann, 2004; Yang, 2003; see also Pascarella and Terenzini, 2005). Worldwide, students from higher SES families and those who studied in schools with higher average SES tend to achieve significantly better and exhibit higher self-efficacy than those from lower SES families as well as those who studied in schools with a lower mean SES (Ho, 2003). Furthermore, Yang (2003) recognised an indirect relationship in OECD countries between achievement in mathematics and science, average family wealth, and average school mathematics and science scores for the school. The relationship between school SES and academic attainment is observed by Fuchs and Wobmann (2004) in their study of PISA which indicated that:

> "…student characteristics (sex, whether they were born in the country where they attend school, whether they live with both parents, and whether either parent was born in the country), family background (number of books at home, parents' educational level and degree of geographical isolation of home), instruction time, teachers' sex, educational level and years of experience are all significantly related to mathematics, science and reading achievement".

Pascarella and Terenzini (2005) also noted that the high school that one attended matters when it comes to academic achievement at university (see also Astin, 1993; Tinto, 1975).

Against this backdrop, some argue that at the college level it is quite clear that the child's own ability is even more important (Sewell & Shah, 1967; Haycock, 2001). Sewell and Shah

(1967), for instance, found that measured ability was nearly twice as important in Accounting when it comes to dropouts as was the social status of the family.

Many South African schools in rural areas still lack water, libraries, electricity, laboratories and computers (DoE, 2007). Participants in this study revealed that there were no science laboratories in some of their schools and that they had never seen a test tube before coming to university. These schools were unable to prepare students to pursue science subjects at university.

The quality of schooling aids or hinders students in their preparedness for further study or employment (Vermunt, 2005; see also TIMMS, 2003). Higher education participation in South Africa is generally low compared to international standards. The lack of participation of students from low SES households and families (Letseka, *et al*., 2008; CHE, 2007) is an international phenomenon. There is a plethora of explanations for this, including aptitude-based and biological factors. The lower ability of low SES children is partially explained by genetic predispositions which are not as significant as the environment (poverty and its embedded dictates such as nutrition or diet) (Gorard and See, 2008; Goldsmith, 1980; Kleinman *et al*., 2002).

2.4.2 Size of Household and University Attendance

The literature has preoccupied itself with 'quality *versus* quantity' issues in families where a certain proportion of the wealth of the household has to be allocated to children for their well-being (Becker, 1973). The issue here is how the size of a household of family affects the allocation of resources based on the number of children *vis-à-vis* the resources available. Becker's quantity and quality model is a model of investment where households decide the level of resources allocated per child (Turkheimer *et al*., 2003). This study also indicated that respondents coming from smaller households were more likely to be the first generation to go to university. In poorer households, the number of young adults who attend tertiary education may be smaller than in richer households due to financial constraints (Branson, 2009; see also Margaret *et al*., 2001;Wolfe, 1982).

Two sets of extant studies, one focusing on scholastic achievement (Blake, 1981; Hauser, 1986) and the other on cognitive development (Wolfe, 1982), attest to the fact that children from bigger families experience lower academic performance than their counterparts from smaller families. Another body of literature shows that proportions of IQ variance attributable to genes and environment vary with SES in a non-linear manner (Turkheimer & Gottesman, 2003). Based on the preceding modelling it follows that "in impoverished families, 60% of the variance in IQ is accounted for by the shared environment, and the contribution of genes is close to zero; in wealthy households the result is almost exactly the opposite"(Gorard and See, 2008).

In low SES households, the decision on who accesses tertiary education and the allocation of scarce resources hinges on relative ability or aptitude amongst household members. Thus, the role of ability in deciding who goes to university is more significant in lower SES families. (Branson *et al*., 2009).

The literature reveals that household size and composition have a significant impact on a child's education. Children from larger families had slim odds of school attendance compared to those from smaller families (see Margaret *et al*., 2001). In 1996, 48% of South Africans lived in households with six or more family members (Margaret *et al*., 2001). The lower the level of education of the household head the larger the size of the household (Margaret *et al*., 2001). Individuals who come from families with more offspring are disadvantaged in the schooling process. Conversely, more recent studies suggest that the negative effects of 'sibship' size on children's educational achievement might be counterfeit (Conley, 2006).

Moreover, this study has revealed that many students coming from disadvantaged schools come from single parent homes where the household head is a female. Margaret *et al*. (2001) noted that that was true of 53% of those living in female-headed households and 45% of those living in male-headed households. Low income and poverty in single-parent homes lead to increased health problems and an inability to provide educational resources for their children.

Other studies also confirm the strong negative link between schooling and poverty, and that economic deprivation is a major hindrance to children's education (see Mukudi, 2003 school level education in Kenya; Clarke, 2009 on higher education in the United Kingdom; see also Booth & Kee, 2005).

2.4.3 Material conditions at home

Ho's (2010) study of family influences on science learning among Hong Kong adolescents identified three types of parental investment[5] in their children's education, namely: cultural (classical literature, poetry and works of art); educational (a desk to study at, textbooks and calculators); and material (a room of one's own, a link to the Internet, a dishwasher, DVD or VCR player, a digital camera or video recorder, a musical instrument – piano, violin, and a pay TV channel). These resources were measured by the Programme for International Test and Assessment (PISA) questionnaire in 2006 in Hong Kong. Ho (2010) observed that students attained significantly higher grades in scientific literacy when they had access to these resources. Similarly, students with higher SES parents (Rothman, 2003), living in homes with modern possessions (Yang, 2003) and more books outperformed others (Mwetundila, 2001). Gorard (2008) observed that results of international tests like Trends in Mathematics and Science Study (TIMSS) affirmed that home background is a determinant of achievement in science across most countries.

In South Africa, studies have shown that poor schools especially in rural areas, lack resources such as sufficient classrooms, have poor access to services such as water and electricity, no landline telephones and hence no Internet access, and that there are few public or school libraries (see Nelson Mandela Foundation, 2005; Gardiner, 2007); they also suffer from a shortage of textbooks and relevant learning and teaching material (Mohlala, 2010). Individuals who attend disadvantaged schools in South Africa are usually from disadvantaged socio-economic backgrounds (Munro *et al*., 2011) with a very low Household Expenditure levels (see Margaret *etal*., 2001).

Ho's (2010) study on parental investment at home can be applied to both school level and higher education institutions. At the higher education level, students (particularly those from disadvantaged backgrounds) rely on higher education institutions or government funding facilities such as NSFAS for educational, cultural and material resources, hence the importance of material conditions at home in relation to academic progress.

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[5] Parental investment is defined by Ho (2010) as the economic and cultural resources provided by parents for their children's education.

2.4.4 Food [In]Security and Academic Progress

Most of the literature that attempts to explicate the relationship between food or nutrition and education has focused on elementary levels of basic education. Furthermore, while there have been few sociological studies on the link between nutrition and educational outcomes, some studies have shown that the nutritional environment in the home is linked to household socio-economic status. In turn, household socio-economic status is a predictor of children's academic performance, and a significant mediator of poverty effects on schooling for children in early primary grades (Pollit, 1990, international trends; Kgosana, 2012 South African situation at university level in general). Insecure access to nutritious food is a common existential reality for poor households in developing countries (see Hannum and Yu (2007). In the South African context, a Ministerial report on the provision of student housing has observed that hunger and poor nutrition impacted on attendance, concentration levels during lectures and academic progress which in turn leads to attrition (Nzimande, 2012).

In a study of Kenyan middle-school children, Mukudi (2003) observed that the high incidence of nutritional stress was a significant educational problem in this population; and that the association between attendance rate and nutrition status was a function of socio-economic status. The predictive effect of nutrition status on educational achievement is more evident for girls with poor socio-economic status (Mukudi, 2003). Preventive supplementation studies suggest a causal relationship between poor diet and problems at school (Pollitt *et al*., 1993). Pollitt (1990) observed that nutritional deficiencies and poor health in primary school children were among the factors contributing to poor school enrolment, absenteeism, early dropout and poor classroom performance. A number of other studies have revealed that poor nutrition and diet affect academic performance negatively (American School Food Service Association, 1989), while proper nutrition relieves hunger and enhances academic performance and children's ability to succeed (Murphy *et al*., 1998; Kleinman *et al*., 1998). While attention has been given to the association between most SES variables and the academic performance of children, not much has been said or done about the effects of nutrition on academic performance in general, *let alone in higher education* (see Pollit, 1990, italics mine). This is a challenge to policy makers and the government.

An unpublished study by Munro *et al*. (2011)at UKZN, found that on average students spend R127.93 on food per week and are significantly more likely to go hungry at the end of a semester near examination time. Students who relied on financial aid were found to be more susceptible to food insecurity than those who did not. They found that:

> "...around one in ten students (11%) are highly vulnerable to food insecurity, with about one in three students (38.3%) reporting some level of vulnerability to food insecurity".

2.5 Livelihood Assets: University

2.5.1 Family household income

The South African literature affirms that socio-economic status is related to dropout or perseverance (Ministerial Report 2008; CHE, 2007; DoE, 2008/9; Letseka *et al*., 2008). The international literature confirms this (Cardak and Ryan 2007; Clarke, 2000; Le and Miller 2005; Heckman, 2000, Carneiro and Heckman, 2002; Greenway and Haynes 2003; Galindo-Rueda *et al*., 2004; Derden *et al*., 2004; Chapman and Ryan, 2005; Finnie and Larporte, 2003; Tinto, 1975; Pascarella and Terenzini, 2005).

Each country has its own context and conception of poverty and how it affects access to services such as education. In South Africa, the low SES of many families and individuals has been attributed to the apartheid system which systemically excluded the majority of black South Africans from participating fully in the economic activity of the country. A recent study undertaken by Letseka *et al*. (2008) revealed that 70% of the families of the surveyed higher education dropouts fell into the category 'low income-status', and were predominantly black South Africans. Furthermore, the parents and guardians of black students earned R1600 or less a month in certain cases (Margaret *et al*., 2001). This figure corresponds with the average income of most households of students from disadvantaged schools.

Some black parents in South Africa have had no formal education at all, or only some secondary education. Many black students depended on their parents or guardians for financial support to pay their fees and/or supplement their allowances from NSFAS. Many of these students take on full-time or part-time employment and some were doing some dubious

jobs, adding to their stress (see Letseka *et al*., 2008). Conversely, Considine and Zappala (2002) found that family structure as the main source of income and geographical location were not significant predictors of outcomes in school performance once other factors were controlled for. Moreover, Astin (1972) arguing from an North American point of view, asserted that family income alone was becoming increasingly less a determinant of college perseverance (see also Tinto, 1975). This may be attributed, among other things, to the fact that an increasing number of dropouts are voluntary withdrawals[6] in the North American experience. Voluntary withdrawal describes a student making good academic progress who withdraws from college on the understanding that he or she may be considered for re-admission, at the discretion of the authorised dean and required to fulfil any stipulated conditions of readmission.

In the final analysis, as demonstrated above, the relationship between a family's socio-economic status and the children's academic performance is well established in sociological research and is thus a relevant variable to investigate in this South African study.

2.5.2 Student Funding, University Attendance and Academic Progress

International studies on student funding and its impact have reported different results (see DoE Committee Report, 2008; Leuven *et al*., 2003).In The Netherlands Leuven *et al*., (2003), observed that financial rewards do not improve the achievement of low ability students with a low SES. Frenette's (2007) study in Canada found that only 12% of the gap in university participation was related to financial constraints. The reasons cited include that the requirements for the reward were too demanding for low ability students coming from a disadvantaged background. This could be due to factors such the locus of control of

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[6]A university dropout is someone who has attended a university but is no longer doing so and has never graduated from his/her university program (Shaienks *et al*., 2008 [www.statcan.gc.ca/pub/81-595-m/2008070/6000001-eng.htm]). Further, it measures the overall number of failed attempts at obtaining credentials, even if the individual eventually graduates. Previously, dropout rates were calculated based on individuals who attempted postsecondary education, were not in it at the time of data collection and had not obtained a credential by that time. Therefore, it did not capture failed attempts as these went unaccounted for by changing institutions. The difference in results from the two measurement methods was sizeable (Shaienks *et al*., 2008 http://www.statcan.gc.ca/pub/81-595-m/81-595-m2008070-eng.htm). On the other hand, any student in good academic standing may voluntarily withdraw from the College and return conditional on a binding agreement between the student and the university.

individual students and the time and effort they expend on their studies. It follows that 'academic progress' (the pass rate) policy should focus on increasing students' effort as there is a multiplicity of factors that contribute to academic progress.

In line with this thinking, Leuven *et al*. (2003) have advanced the proposition that students with high mathematics skills and better educated fathers had a better chance of pass rates and credit points than those with higher financial rewards. Thus, financial incentives or rewards should be reviewed in combination with a host of other factors that enhance student academic progress and/or epistemic success at university.

Contrary to the above international findings, in South Africa NSFAS, a government student funding scheme, is very important for a number of reasons. It has facilitated equity and access through the broadening of university participation to the majority of South Africans, particularly those from disadvantaged backgrounds (see Letseka *et al*., 2008; DoE Ministerial Committee Report on NSFAS, 2009). However, some higher education observers have questioned whether such broader participation has been achieved. The Ministerial Committee Report (2008) observed that "access to higher education by black students was restricted by the lack of financial aid … let alone in spite of the efforts made by the government to tackle this through NSFAS". They maintain that funding from NSFAS is far from sufficient. The literature shows that in South Africa, the major contributor to black attrition rates at higher education institutions is lack of financial aid (see Letseka *et al*., 2008)[7]. American studies show that both needs-based aid and merit-based aid have positive and significant effects on student GPAs throughout college (Stater, 2009). The study asserts that financial aid facilitates student integration and commitment to academic study which in turn facilitate higher academic achievement (see Stater, 2009).

Student equity has been identified by the Education White Paper 3 of 1997 as a key goal. According to the DoE (Ministerial Committee Report on Transformation and Social Cohesion and the Elimination of Discrimination in Public Higher Education Institutions, 2008), progress has been made through the workings of NSFAS to provide funding to the financially need students of good academic standing (see also DoE Ministerial Report on

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[7]In the budget presented by South Africa's Minister of Finance on (2012)for the next three years, education received the lion's share. The amount allocated to financial aid for university students will be increased.

NSFAS, 2009). Between 2000 and 2007 black student enrolments increased from 70% to 76%, while white student enrolments decreased from 30% to 24% (DoE, 2008). This does not, however, imply that equity has necessarily been attained.

Not all analysts support equity based funding of higher education for students. Cardak (2006) observed that Australia has repudiated equity based scholarships or funding on the basis that they are unlikely to have much impact on the low university participation of students from low SES families. It is argued that students from a poor family background are as likely to attend university as those from better resourced families (Cardak and Ryan, 2006; Hastings, 2008). These arguments notwithstanding, in South Africa and elsewhere, it has been observed that tuition fees raise entry barriers to higher education and thus run counter to the frequently stated policy objective of increasing participation (see Hirsch, 2008). However, Hastings (2008) observed that:

> "Policies such as targeted university scholarships are unlikely on their own to bring SES students into the university system in greater numbers".

This is compounded by the fact that low SES students are unable to take advantage of their ability – as reflected in early school achievement – in the same manner as high SES students in terms of entry requirements (Cardak and Ryan, 2006). This further explains why low university participation by disadvantaged students cannot be attributed to financial constraints alone (see Heckman and Carneiro, 2002).

At UKZN[8] according to the DMI (2010), on average 44% of new students received financial aid during the period 2007 to 2009. The DMI (2010) further observed that, whereas the number of students receiving financial aid had increased since 2007, the proportion relative to the total intake shows a decline. Further, the maximum loan from NSFAS does not cover accommodation and food or sundries such as toiletries and transport fees (until recently as regards the latter) (see also chapter six). This, together with lower matric pass rates and

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[8]At UKZN, there has been a steady increase in the intake of African students in the past three years relative to white and Indian students (DMI, 2010).

scores between population groups, will perpetuate the cycle of poverty and inequality (Branson *et al*., 2009). This observation is associated with another perennial higher education phenomenon in South Africa: the dropout rate (Letseka *et al*., 2008).

At an international level, Glocker (2009) on his study on “The Effect of Student Aid on the Duration of Study” in German higher education institutions noted that an average student with poor financial endowments faces the highest dropout risk. However, with an increase in the amount of funding granted by the Federal Education and Training Assistance Act (BAfoeG – Bundes Ausbildungsfoerderungs Gesetz) there is a major increase in the probability of graduating. The type of financial aid also makes a difference. Comparing BAfoeG eligible students who are funded with the maximum amount of student aid available to students who receive the same amount in private transfers, more student aid recipients graduate by the 16th semester (86% compared to 45%) (Glocker, 2009).

Cardak and Ryan (2007) asserted that when looking at equity and access the key question is "what are the causes of the SES imbalance among higher education participants?" According to them, the 'intuitive' answer is that “low SES students have access to limited resources and are credit constrained when deciding whether or not attend to university”. A plausible solution is lower university tuition charges for such students (Cardak and Ryan 2007). This is further advanced by Le and Miller (2005), who assert that “addressing the socio-economic imbalance within the tertiary sector in the current era would require equity-based scholarships or university fee rebates to be provided to Year 12 graduates” (Supiano, 2008, 2005 in Cardak and Ryan, 2007).

In the final analysis, while financial aid matters, it is the type of financial aid that matters most. It is also important that students’ social background be factored in. This being the case, policy wise, it is necessary to reflect on why fewer low SES students earn entry points and how their eligibility can be improved. In South Africa, the issue of funding in higher education needs a more holistic approach. Thus, there are many other factors that prevent bright students from poor schools entry into higher education such as lack of systematic mentoring and concerted career guidance, to mention a few (see Jones et al., 2008).

2.5.3 First Year Experience at University and Academic Progress

The literature demonstrates that at-risk students are vulnerable during their first year of study and are prone to dropout even within few months of their first year. According to Letseka *et al*. (2008), 50% of students enrolled in South African higher education institutions dropout in their first year, regardless of whether they passed their Senior Certificate with merit or distinction (Letseka *et al*., 2008; Macfarlane (2007/5; DoE, 2005).

During their first year of study, students face a host of expectations. The 'underpreparedness' of high school learners entering university has become a refrain in the discourse on participation and success rates (see DoE Ministerial Report 2008, Letseka *et al*., 2008) – a scapegoat to hide the 'underpreparedness' of higher education institutions[9] to receive these students. The question is: who is supposed to be responsible for their preparation? Since the demise of teachers' training colleges in South Africa, universities have been tasked with the training of teachers. Do their roles and tasks end with the training of these teachers? Is there an interface between school and university? The university courses with the highest failure rates are those that require mathematical skills, such as the natural and economic sciences. According to an unpublished Report on 2004 Economics Two at UKZN, 74% of students failed their examinations (Mbanga-Msweli, 2006). South African learners are near the bottom of the international list when it comes to maths, numeracy and literacy (TIMMS, 2003;Newman, 2003;Van der Berg and Louw, 2006; see also Smetherham, 2009).

International studies have shown that ability as demonstrated by grade performance in high school is related to perseverance in college (Taylor & Hanson, 1970). Measures of ability, as obtained on a standardized test and as demonstrated in high school grade performance, are, however, measures of different dropout from higher education aspects of individual competence. Conversely, past grade performance tends to be the better predictor of success in college only because it corresponds more closely to the individual's ability to achieve within an educational setting with social and academic requirements not too different from that of the college (Astin, 1972). In South Africa, studies have shown that Matric or National Senior Certificate results are not a strong predictor of academic performance at university (see DMI,

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[9] Similarly, terms such as 'student failure' or 'dropout' impose blame on the student which makes it difficult for the higher education sector to look inward.

2010 in their presentation on the Symposium on National Senior Certificate and First Year Student Performance: Implications for University Admission. University of KwaZulu-Natal, Durban, 2010). But chapter four findings show that matric is good predictor contrary to DMI and in agreement with Astin's American findings.

2.5.4 First Generation and Academic Progress

International studies (Choi, 2005; Pajares & Schunk, 2001; Tinto, 1982; Margolis, 1976; Scott, Yeld and Hendry; 2007) point to numerous determinants that may help students to be successful and persevere at college or drop out. Amongst these are self-efficacy and achievement (Vuong, Brown-Welty, Tracz, 2010; Choi, 2005; Pajares & Schunk, 2001), first generation college status (Horn & Nunez, 2000; Ting, 2003)), gender and ethnicity, and institutional characteristics such as size (Tinto, 1982). Scott*et al*. (2007) observed certain characteristics of the formal educational process where substantial impediments to student progression were noticeable such as disturbances of progression which arise from students not surmounting legitimate and necessary hurdles, such as gaining knowledge and skills that are essential for functioning at the next educational level.

According to Vuong et al. (2010), self-efficacy beliefs affect GPA and the perseverance rates of sophomore students and second-generation college sophomores outperform their first-generation peers. Billson and Terry (1982) define first-generation students as college students who do not have at least one parent who earned a bachelor's or higher degree. In the US, by law, first-generation means:

> "an individual both of whose parents did not complete a baccalaureate degree; in the case of any individual who regularly resided with and received support from only one parent, an individual whose only such parent did not complete a baccalaureate degree" (Higher Education Act of 1965, Sec.402B[6]gl[a]) in Voung *et al*., 2010).

Researchers in the USA have found that significantly large numbers of students who are prone to unprecedented attrition rates are college sophomores (second year students at college). This is the result of a phenomenon known as the 'sophomore slump' which is defined by Feldman and Newcomb (1969) as sophomore students' dissatisfaction with their

personal college experience, resulting from students' struggles to achieve competence, desiring autonomy, establishing identity, and developing purpose (Flanagan, 1991in Voung *et al*., 2010). First-generation students experience peculiar impediments to enter tertiary education. This makes it difficult for them to stay enrolled and attain a degree (Horn & Nunez, 2000). Moreover, Ting (2003) found that first-generation students were at higher risk of attrition than second-generation college students. According to Ting (2003) they tend to have lower first-semester GPA and higher dropout rates than other students.

Hoffman (2003) noted that first-generation students were about twice as likely to drop out of a four-year course compared to those students whose parents have a college degree. The second year in college is a time when academic performance is no longer satisfying for its own sake, which often leads to a sophomore identity crisis affecting a student's social, academic, and personal self (Margolis, 1976). In South Africa with regards to students from low quintile schools the sophomore identity crisis could be linked to lack of knowledge of entitlements such as needs and support services. It could also be linked to lack of confidence in English, a major barrier that impeded these students from accessing institutional support systems (Jones et al., 2008).Tracking, monitoring and evaluation systems could be put in place for institutional change because where such systems are available they are just for internal use by fragmented units within institutions not for wider institutional change (see also ibid).

2.6 Livelihood Context at the University Stage

2.6.1 Residence Accommodation

The literature on residence accommodation at South African higher education institutions has focused mainly on social and political aspects especially those associated with racism, transformation and social integration (see DoE Ministerial Report, 2008). According to the Student Opinion Survey (2009) students were not satisfied with a number of services at UKZN with accommodation topping the list. The *Sowetan* newspaper revealed that there was a shortage of 195 000 beds at university residences nationwide (Kgosana, 2012). The international literature shows that students who live on campus are more likely to persist and graduate than students who commute (Blimling, 1989). This relationship remains positive

and statistically significant when other factors (precollege academic performance, SES, educational aspirations, age, and employment status) are held constant (Pascarella and Terenzini, 2005).

Another important finding is the capacity of the residence halls to facilitate students' social (and academic) involvement with other students, with faculty members, and with their institution (Pascarella and Terenzini, 2005). The influence of residences on the social and academic involvement of students revolves around the dynamics generated from the so-called 'living learning centres' (LLCs). The influence of these LLCs will depend on the nature or type of activities and programmatic structures they offer. Thus, academically rich residential ambiences that include faculty participation and academic and cultural programmes, including academic advising, mentoring, and onsite classes, would be more educationally powerful environments than the environment found in traditional residence halls (Pascarella and Terenzini, 2005; Kanoy and Bruhn, 1996). However, the notion of LLCs should not be overstated, as other studies, after holding other variables, such as academic achievement, constant (Kanoy and Bruhn, 1996; gender, race, high school achievement; and SAT scores, Stassen 2000) found a marginal, statistically non-significant advantage from living in an LLC in terms of progression from first year to second year when students in an LLC were compared with students in traditional residence halls (Pascarella and Terenzini, 2005). By and large, there is evidence in South African literature that shows that accommodation helped students to do their studies effectively and access universities' resources (see also Jones et al., 2008).

2.6.2 Travel

According to anecdotal data over the years student loans allocated by the UKZN Student Funding Centre from NSFAS to students did not include travel costs to and from the university if one did not stay on campus. In 2008, a home allowance was introduced to encourage students to stay at home while studying at university. According to student funding sources, in 2011 the home allowance amounted to R6323 per year (over an eight month study period). A student staying in a university approved residence gets an additional R1500 and the NSFAS recommended cash allowance for meals of R5026 (over an eight month study

period). Medical and Nursing students receive R5654 (over a nine month study period). The allowances are said to serve two purposes: one is to cut down on student loans; and the other is for students to have money in their pockets (anecdotal evidence).

2.6.3 Teaching and Learning Models

At most South African universities, lectures consists of a large number of students (approximately 300 students) crammed together in one classroom, which makes it difficult for a lecturer to engage meaningfully with students, especially when they have to entertain questions. The current lecturer-student ratio is insurmountable for both lecturers and students. This arrangement (Davison, Langan & Sheese,2005) encourages individualistic, competitive models of assessment or evaluation that seem to be imperative at the university level and in turn undermines efforts to create a collaborative (learning and teaching) environment (brackets mine). Secondly, it downplays the notion of the 'relational epistemology[10]' that is entrenched in the seminar mode of teaching and learning, which inculcates constructive thinking. According to (Hewlett, 2003) constructive thinking "is a reflective and active process that values experience, integrates different ways of knowing (reason, emotion, imagination, and intuition), builds caring relationships with others, and constructs new ideas and concepts to benefit society". Building on the notion of constructive thinking, based on their exploratory research, Davison, Langan, Sheese (2005) outlined their own 'constructive teaching and learning' approach which encapsulate five values, namely: collaboration, deep-learning, reflection, engagement and caring[11]. The significance of this line of thinking in this

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[10] I have borrowed the notion of a relational epistemology from Thayer-Bacon's (2003). *Relational "(e)pistemologies"*. New York: Peter Lang.

"**collaboration** (viewing knowing as social and knower as in relation with others rather than as isolated or hermitic individuals); **deep learning** (enhancing understanding of course content by promoting connections among its elements); **reflection** (encouraging students to connect the course content with their prior knowledge and lived experience), **engagement** (discussing and building a point of view by means of feedback and dialogue regarding course activities), and **caring** (attending to and listening to others so as to foster relationships that acknowledge and encourage acceptance of our differences and similarities)" (Davison, Langan, Sheese, 2005). This articulation asserts learning and knowing contexts within environments. Thus proper learning has to take cognisance of these contexts.

study is that their approach elevates collaborative learning that should augment students' engagement in the teaching/learning process, and ultimately facilitate transformation of worldviews (see also Martin, 1998). And thus in turn:

> "To contribute to the socialization of enlightened, responsible and constructively critical citizens. Higher education encourages the development of a reflective capacity and willingness to review and renew prevailing ideas, policies and practices based on a commitment to the common good" (White Paper 3: 1.3 in DoE, 2008).

This passage reaffirms the importance of the seminar. Higgins (2007) also notes the importance of small group teaching which emphasises the dialogic nature of higher education. This takes us to Thayer-Bacon's conception of constructive thinking which is explicated as the creation of knowledge as 'transactive socio-political process with others'. Her epistemological lens is 'relational epistemology', which emphasizes caring as an element of critical and constructive thinking (Thayer-Bacon, 1993).

In the final analysis, if lecturers are to inspire students to work harder and to achieve high-quality learning outcomes they need to ensure that the programme they offer is coherent, the assessment and teaching approaches foster engagement and deep learning, and that they create a supportive learning environment (Floyd, 2009). The evidence indicates that university or college students show noticeably higher levels of knowledge acquisition when instruction matches their preferred learning style (Pascarella and Terenzini, 2005). The problem in South Africa is trying to deliver collaborative learning and teaching in line with personalised preferences in disciplines with large first year classes – most lecturers are not trained to achieve this.

2.6.4 Language and Epistemic Success: Bilingualism and Multilingualism[12]

An interesting case of bilingual education is provided by Nancy Hornberger (1987), demonstrating both the feasibility and the difficulties in implementing a policy that sought to make use of the languages of the indigenes in primary schools. The project in Puno in rural Peru introduced a language that was marginalised alongside Spanish in a dual medium system. An important aspect of the project was that it adopted the maintenance approach to bilingual education with Quechua (a local indigenous language in Peru) used as a language of learning and teaching throughout the school. Hornberger reported a number of success stories, including overcoming cultural discrimination and eradicating illiteracy, and better use of educational opportunities. Improved learner participation was reported in classroom conversations and strides were made in important skills such as reading and numeracy. Rote learning was also minimised. Despite these educational advantages, the policy itself was not successful. There was serious community resistance and a large number of schools withdrew from the project. The main reason for the project's failure was the strong prejudice against the use of the vernacular languages in education. The community viewed the school as a non-Quechua institution in which Quechua was alien, but where Spanish was suitable. The project provides the lesson that a language of learning and teaching policy must take sociolinguistic milieus such as the existing socio-political market, linguistic realities and the needs of that particular society into account.

According to Hornberger (2008) the impetus for multilingualism is that it values more than one language in teaching and learning. Its focus is education that takes as its starting point the knowledge students bring to the classroom in order to move towards their participation as full and indispensable actors in society – locally, nationally, and globally (Hornberger, 2008).

In South Africa, Webb (1999)'s classical study cites three factors impeding the effective implementation of language policy in South Africa. These are the sociolinguistic character of South Africa, inadequate language policies, and a lack of political will (Webb, 1999). South Africa has 11 'official' languages. Besides linguistic diversity, there is an extreme

[12] In terms of the theoretical identification of variables in this study, the issue of language falls under context. However, given its importance to this study, it exhibits multiple contexts (as a resource to access course content, in terms of socio-political power relations, its relationship with student-staff interactions, etc).

politicisation of language. English is the language of the economy and African languages are held in low esteem (Webb, 1999).

The second factor relates to the inadequacies of language policies. Policy is supposed to give direction to what actions and steps need to be taken to implement policies. However, according to Webb (1999) South African policy documents do not allow policy makers to make informed choices.

Both the international and South African literature notes that mother tongue instruction and academic performance or progress are significantly related in general (Alexander, 1998 on the South African experience; Hornberger, 1987; Heugh,1999;UNDP, 2004 on the international experience). Conversely, being forced to learn in a language other than their own has a demeaning effect on students' ability to participate actively and effectively in classroom discussions. Cross and Johnson (2008) observed that "if you provide students with access to the dominant language, you contribute to perpetuating and increasing its dominance". This is precisely what is happening in most South African higher education institutions.

An academic from Stellenbosch University observed that students from disadvantaged backgrounds and low SES schools who were studying Actuarial Sciences at the university had problems understanding what a ledger or a cheque book was (see also Boughey, 2005). To me the problem is simple: 'language and learning are simply contexts'. Thus, when disadvantaged students attend university they enter contexts different from where they come from. Higher education institutions should be aware of these contexts and put programmes in place for the induction of students.

The phenomenological explications provided in this study illustrate that bilingualism or biliteracy (being taught in English and IsiZulu concurrently) was entrenched in the teaching and learning styles at high school level (whether in tacit practical applications or formally in terms of the rule of thumb of the school or institutional systems), while it was absent or silent at university level, despite the fact that UKZN purports to uphold a language policy which encapsulates bilingualism and/or multilingualism. According to Hornberger (1990) biliteracy refers to instances in which communication occurs in two (or more) languages in or around writing. Bilingualism facilitates engagement between teachers and learners. The problem is that English is seen as superior to other languages, particularly the languages of the

indigenes. The indigenes also subscribe to this notion, justifying the dominance of English on the grounds that other languages having not acquired 'linguistical' power. This elitist position continues to reproduce and maintain power relations that perpetually disempower the indigene. Learning and therefore language is a context. Forcing an indigene to learn in a different language takes him/her away from his/her context where things can be learned or articulated easily, using his or her own local language or dialect, and embedded stocks of cultural artefacts. Professor Paulos Gerdes of the Universidade Pedagogica in Mozambique uses cultural artefacts (Lunda designs from eastern Angola, neighbouring Zambia and the DRC) to teach geometry and mathematics, what he calls in the local language (language here taken as a cultural artefact) 'Lunda geometry' (Gerdes, 1996). This has helped improve learning and teaching. The use of English undermines the achievement of polyglotism, which assumes that "the more their learning contexts and contexts of use allow learners and users to draw from across the whole of each and every continuum, the greater are the chances for their full biliterate development and expression" (Hornberger, 1990; see also Boughey, 2005).

UKZN has a very well-articulated language policy on paper as informed by the Higher Education Act of 1997. The Language in Education Policy (1997) and the Language Policy for Higher Education (2002) are policy development blueprints. Under the Higher Education Act, and conditional on the policy determined by the Minister of National Education, now Minister of Higher Education and Training, each higher education institution must determine its language policy and publish such a policy (UKZN Council, 2006). At UKZN, the issue is not whether there is a good policy, but rather the implementation process. It is also not about resources such as funding (notwithstanding the fact that these are vital), but other structural issues such as political will (Webb, 1999). UKZN's language policy is set to be reviewed in 2018, at the end of Phase 1 of its implementation, or earlier if deemed necessary.

2.6.5 Student Support Services at University

Traditionally, student counselling services in higher education has focused on educational guidance, career guidance, employment services, and psychological counselling (Rott and Gavin-Kramer, 2006; Clarke, 2009; Wallbank, 1991; Thomas, 2009). This is a well explored area, which I will not go into. However, the changing face of the higher education landscape,

which is more complex because of the diversity of the student population, requires a reconceptualisation of student counselling services.

The South African literature shows that at some universities, for instance, the University of Cape Town (UCT) the majority of students who made use of the student counselling services were undergraduate students and English second language speakers (Schreiber, 2007). The most frequently presenting concerns amongst these students were problems associated with concentration, difficulties with motivation, depression, tiredness and fatigue.

An immediate challenge is that students come from insular communities, yet are required to adjust to a culturally diverse environment, in which they have to negotiate multiple social relationships (*ibid*). According to Malefo 2000 and Naidoo (1999), previously disadvantaged students in historically advantaged higher education institutions face additional psychosocial adjustment problems (see also Higgins, 2007;Nicholas, 1997 in Schreiber, 2007).

The above analysis merely provides a snapshot, and is by no means a holistic picture of the gamut of problems faced by students. One of the participants in my study, when asked where he/she found help with his/her problems, said he/she was helped by a *sangoma* (a diviner and practitioner of traditional African medicine in Zulu culture). The literature is silent on some of the mainstream 'traditional' issues that affect students from disadvantaged backgrounds. Thus, in the context of this study: Does the student counselling model currently in use accommodate the 'new' South African student context in terms of its diversity? For instance, does it take into account the lived experiences of students, including their background?

At UKZN, student services operate under the UKZN Student Counselling and Careers Centre. In many ways, the process resembles that of European and North American higher education institutions in that higher education student counselling services are still based on a traditional model (centralised, manned by psychologists, not socio-psychodynamic etc). UKZN also runs three other student service centres, namely: the Disability Unit, the Wellness Centre and the HIV/AIDS Unit. This researcher tried to establish the most frequently presented problems/issues students raise at the Student Counselling and Career Centre for a statistical profile, but could not get access to such information, although it is presented at the Student Services Board. While the Student Counselling Centre web page provides a list of their services, this does not reveal much about the success, effectiveness of and accessibility to these services.

In the UK, Germany and South Africa, the literature shows that the concerns presented by students are similar. These include personal, struggles, existential and spiritual anxieties, financial problems, career choices and intellectual difficulties, welfare concerns such as poverty or food insecurity; personal relationship concerns; addiction; and identity issues (Clarke, 2009; Oxley, 2009; Leach, 2008; Pearson, 2008; Thomas, 2009; Wallbank, 1991; Munro *et al*., 2011). Given the number of issues that students are confronted with while pursuing their studies, student counselling services should be accessible to all students so that they can be freed from psychological distress and able to engage in the learning process and maximise their potential(Crowley, 2007). Student counselling services in some South African universities have been seen to be inaccessible and in some cases invisible for students from disadvantaged schools (Jones *et al*., 2008). There is a long waiting list of students wanting to see counsellors. Because this is an educational service (see Crowley, 2007) it should be provided in a different manner from institutions such as hospitals. The identification of the concerns experienced by students in higher education will in essence be based on the approach and methods used.

Moreover, counselling should be applied discriminately, based on student needs or the concerns put forward at that particular point in time. The *British Medical Journal* (1976) noted that while many counselled students were academically inadequate, they did not disclose their academic problems to counsellors. Thus,

> "they would probably have benefited more from academic and educational advice, and the American report highlights the lack of cross-referral between agencies and failure on the part of the counsellors and psychotherapists to take adequate histories of academic performance" (*British Medical Journal*, 1976).

This evaluation is related to the assertion by Jones *et al*. (2008), from a South African perspective that student counselling services were not utilised by students or were inaccessible because students did not know about these services. Schreiber (2007) observed that some students could be using other counselling services such as private services, and Faculty-based support services.

The use of student counselling services was also found to differ according to gender. At the University of the Western Cape Naidoo (1999, in Schreiber, 2007) noted that 58% of clients were female, and Nicholas (1997, also cited in Schreiber, 2007) observed that 56% of

students using counselling services at the University of Cape Town were female. Female students are more apt to discuss emotional issues and to ask for assistance (Schreiber, 2007). However, university student counselling centres should aim to address the needs of all students, based on student contexts and backgrounds (Bronfenbrenner, 1979).

Munro *et al*. (2011) identified the models most widely used by student counsellors (who are mainly community psychologists). These include Social Action Models (SAM) and other community psychology based models such as the Mental Health Model. These models are preferred because of their presumed empowerment aspects. While Munro *et al*. focused on vulnerability to and the effects of food insecurity, student counselling services are faced with a myriad of student problems. Thus, an integrative, psychosocial dynamic model is relevant (see Clarke, 2009; see chapter seven on recommendations). The challenge for student counselling services should not be about the range of services they provide to the student population, but how to make these services visible and relevant. While they are called on to serve all students, disadvantaged and advantaged, the challenge is how to ensure that they reach the most disadvantaged. Thus, models and policies on student counselling services, like policies in other fields, should be based on well researched information.

Some intriguing research projects have been undertaken by student counselling and career centres, such as the exam-apple awareness drive which took place during the November 2006 examination period at UKZN to raise awareness on food insecurity (Munro *et al*., 2011). Student counselling services need to adopt a proactive, integrative psychodynamic model in order to respond to diverse student needs and concerns. The work of a student counseling service involves frequent interactions with different parts of the institution (see Nicholas, 1996).

In the final analysis, student services should be of an educational nature and they must be visible. Many student services in higher education institutions are not visible to students from disadvantaged backgrounds (see Jones et al., (2008). Some find them culturally irrelevant, and social stigmas may prevent students from using them (Jones et al., 2008). Furthermore, studies have shown that some students suffer from class-based discrimination by both their peers and university staff which leads to an identity crisis (see also Thomas, 2009; Clarke, 2009). It is the contention of this study that the sustainability and effectiveness of student

support services hinges on their accessibility and ability to build confidence in students to access support.

2.7 Livelihood Context and Social Capital Creation at the University Stage

2.7.1 Institutional Environment

Institutional characteristics such as academic integration and social integration are very important determinants in students' persistence and epistemic success (see Nora, 1993). The notion of academic integration connotes the establishment by individual students of a strong relationship with the higher education institution's academic environment, both inside and outside the classroom, which includes interactions with the Faculty, academic staff and peers of an academic nature (peer tutoring, study groups) (Nora, 1993) . Social integration consists of developing a strong relationship with the institutional social environment, both in the classroom and outside of class. Unlike academic integration, the interactions are of a social nature, such as peer group interactions, informal contact with Faculty and involvement in organisations (see Nora, 1993). The absence of these two factors was associated with student dropout (Pascarella & Terenzini, 1979).

Similarly, Tinto (1975) observed:

> **"**It is the characteristics of the institution-its resources, facilities, structural arrangements, and composition of its members-that place limits upon the development and integration of individuals within the institution and that lead to the development of academic and social climates, or "presses," with which the individual must come to grips. On the one hand, this is true with regard to achievement within the academic system if only because institutions of different quality maintain different standards of academic achievement. On the other hand, this is also true with respect to the social system of the college since much dropout appears to result largely from a lack of congruence between the individual and the social climate of the institution rather than from any specific failure on the part of the individual" (Tinto, 1975).

It is the individual's integration into the academic and social system of college that most directly relates to his persistence or continuance in that college (Tinto, 1975). The higher the degree of integration of the individual into the college systems the greater his/her commitment to the specific institution and the goal of college completion. To this effect, Summerskill (1962) observed that it is not simply the absence or presence of intellectual development that matters in persistence; but the degree of congruency between the intellectual development of the individual and the prevailing intellectual climate of the institution.

However, adequate social integration is an insufficient measure of whether one or not one will dropout. Some will learn to endure the hardships and persist. Persistence in college goes beyond individual characteristics or prior experiences; thus, dropout in college is seen as the outcome of a longitudinal process of interactions between the individual and the institution (peers, faculty, administration etc) in which s/he is enrolled (Tinto, 1975).

Intellectual development, as an integral part of a person's personality development and a reflection of his/her intellectual integration into the academic system of the college, has also been found to be related to persistence in college (Pascarella and Terenzini, 2005; Tinto, 1975, 1993; see also Cabrera *et al*., 1992). Intellectual development relates to the individual's identification with the normative aspects of the academic system. According to Bourdieu (1984, 1997), familial factors, initial social conditions, individual disposition such as attitudes toward school, intellectual ability, academic achievement, and aspirations, affect the academic success of students at university. A number of authors who have analysed student change and persistence or dropout (Pascarella and Terenzini, 2005; Tinto, 1975; Marjoribanks, 1998; Ho, 2003) concur.

2.7.1.1 Interactions with Faculty members

Student contact with Faculty members outside the classroom promotes persistence, educational aspirations and degree completion, even when other factors are held constant (Pascarella and Terenzini, 2005). According to Pascarella and Terenzini (2005), the nature of this relationship assumes two processes. The first is that students are socialised to the normative values and attitudes of the higher education institution. The second is commitment

attachment between student and institution that appears to be facilitated by positive interactions with Faculty members and peers (Pascarella *et al*., 2005). However, Ruddock (1999,in Pascarella *et al*., 2005) found that the positive relationship between student and staff interactions outside of the classroom should not be overstated as other studies have found that not all these interactions are positively associated with persistence. Most studies have found that a positive relationship between students and faculty members outside of the classroom promotes academic progress (Astin, 1993; Moletsane, 1995; Kuh and Hu, 2001). Such interactions foster social integration into the university system, and determine to a certain extent whether or not the student will persist or dropout (see Bailey *et al*., 2005; Beggs *et al*., 2003).

2.7.1.2 Interactions with Peers and Study Groups

A number of studies have found that peers are one of the most potent socialising agents in promoting persistence and degree completion (Pascarella *et al*., 1991; Astin 1993). This, according to Astin (1993) is more evident during the undergraduate years, when growth and development seem to take place. Other studies have shown that peer influence is statistically significant and a positive force in persistence and progression to graduation (Pascarella *et al*., 2005; see also Astin and Astin 1993; Steel, 1997, 1999, 2000). Some departmental experiences at UKZN support the findings of these studies. For instance, one academic noted that group study, peer learning and peer tutoring were related to academic success (Symposium on Matric and First Year Experience, 2010).

According to Kuh (2001, cited in Bitzer, 2005) the best single predictor of student learning and personal development is the time and energy students devote to educationally purposeful activities. Thus, institutions should meaningfully engage students in a diverse range of activities that add to valued outcomes to achieve high quality results.

Social integration through extracurricular activities has not been found to negatively affect academic performance or persistence at university or college(Nora, 1993). Persistence or dropout is seen as the end product of the individual's experiences in the academic and social systems of the college (Tinto, 1975). Some of the participants in this study counsel freshmen at university to form study groups and join mentorship programmes. A compelling reason for

such advice is that a study group accommodates a relatively small number of members which facilitates interaction. This theme is discussed further at a later stage. In a group mode of teaching and learning small groups of students work together on course material, discuss ideas, or prepare talks and essays while making provision for students who like to work alone, and the role of an educator is that of an advisor rather than the expert (see Martin, 1998).

2.7.1.3 Emotional Integration of Students in the University System

The literature surveyed for this study points to a number of factors that influence students' academic progress at university; however little attention has been paid to the emotional life of students. Recent studies have shown that students' emotional lives have an impact on their academic performance. Therefore, student services should focus on motivating students to uncap their creativity; and promote their self-esteem, which then becomes a self-fulfilling prophecy (see Ochse, 2005). Cross *et al*. (2008) noted the presence of what they call 'campus membership' in their analysis of the University of the Witwatersrand student experience. In their study titled the "Added Value of a Foundation Programme" conducted at the Nelson Mandela Metropolitan University, Wood *et al*. argue that foundation programmes should explore the possibility of integrating social and emotional learning programmes. The focus should be on developing intrapersonal and interpersonal skills, an internal locus of control and the habit of frequent self-reflection (see Wood & Olivier, 2004 in Wood *et al*., 2005; and Summerskill, 1962). Programmes for disadvantaged students should focus on the inner abilities and thoughts of these students.

2.8 Livelihoods Assets and Strategies: Student Life at University

2.8.1 Budgeting (Personal Financial Management)

There is a paucity of literature on budgeting for students. Coinciding with the submission of this study, an unpublished draft study by Munro *et al*., (2011) alludes to the need for assistance with budgeting NSFAS allowances:

> "Some students need assistance with budgeting their meal allowance, but for many their meal allowance could also be needed to; complement textbook allowances (as the financial aid textbook allowance is likely to be inadequate), pay for stationery, photocopying and other student expenses (as their families may not have the resources to fund these); feed brothers and sisters (in the case of the university student being the "head of the home"), supplement food and other living expenses for family members (if no member of the family is working)."

The findings of this study show that there is a need for financial literacy training for students especially those from disadvantaged schools (see chapters six and seven). This problem is not confined to developing countries like South Africa, but is an issue that higher education institutions elsewhere are currently grappling with. For instance, Texas Tech University in the United States has started a financial-literacy programme to help its students grasp the basics of budgeting, saving, and not buying what they cannot afford (Supiano, 2008). This programme comes as colleges in the USA grapple with rising costs and an economic downturn. According to Dorothy Bagwell Durband, the director of the programme the institution has a responsibility to assist students with financial issues especially budgeting. Financial literacy affects more than students' wallets; it also affects retention, productivity, and student wellness (Supiano, 2008).

The new Higher Education Act in the US requires colleges that run federal TRIO programs[13] for disadvantaged students to connect them to financial counselling. The law also requires that guarantee agencies work with colleges to develop financial literacy programmes for students. Supiano (2008) has observed that many college students run into trouble managing their money.

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[13] TRIO refers to seven US federal programmes to increase access to higher education for low-income students.

2.9 Do Perceptions of Students Matter in Academic Progress?[14]

2.9.1 Students' Own Perceptions of Academic Performance

Studies have shown that optimism is linked to positive educational outcomes. Ansor and Connell (1992) viewed optimism as a self-generating, self-fulfilling prophecy because of its impact on future success, and the fact that it carries a likelihood of enhancing motivation, persistence, activity levels and hence educational achievement (see also Moletsane, 1995). Higher expectations of success are positively related to subsequent achievement (Moore 1998; Eccles *et al*., 1983; House, 1995; Oliver, 1995).

Many students tend to have misconceptions about the generic skills required to succeed in university subjects or programmes. For instance, Arquero and Donoso (2002) noted that many Spanish students have misconceptions concerning the skills needed to succeed in a career in Accounting. The students viewed theoretical Accounting knowledge as unconnected with 'real world practice' and, consequently, they rote learn the material (Arquero *et al*., 2006). In this context, it is vital that educators explain the relevance of modules to the knowledge and skills needed to succeed in their future Accounting careers.

A study by Arquero *et al*., (2009) at a Spanish university examined the relationships between the antecedent variables and the grades achieved in Financial Accounting I. Students who had high access scores, did Accounting at school, were interested in pursuing a career in Accounting and were confident in their academic abilities, achieved the highest grades. The inference is that there is a strong association between interest (perception) and academic success. Thus, students' own perceptions, expectations and abilities were necessary ingredients for success. In his study of "Race differences in academic expectations and perceptions of ability in relation to actual achievement" in South Africa Ochse (2005) noted that while white and black students had relatively high expectations for success and believed that they were intellectually above average, black students were more likely to overestimate their future performance than their white counterparts. The explanation for this could be ignorance about what abilities and skills are needed to pursue a course successfully at

[14] Refer also to chapter seven.

university. This is particularly true of freshmen. However, according to Ochse (2005) this tendency may be also be due to a particular philosophical value system.

2.9.2 Perceptions of Academic Inadequacy

Students change considerably in various ways during their first year of study at university. One of these changes involves confidence levels in certain skills which may be associated with actual academic performance (see also Bitzer, 2005). This change may take both the quantitative or qualitative forms and therefore there is no directionality, as it entails both regression and progression (Bitzer, 2005). In his study of "First year students' perceptions of generic skills competence and academic performance..." Bitzer (2005) noted that – although not conclusive – positive perceptions of writing, problem-solving and self-management skills could be strongly associated with better academic performance. Whether or not students have these positive perceptions, the onus is on the higher education institutions to initiate programmes that are geared towards the holistic integration of students into the university system, both socially and intellectually, for better educational outcomes for both students and the institution. A diagnostic-formative approach is needed that incorporates Astin's predictive (1993) input-environment-outcomes (a parallel of Bitzer's 2005 value-added approach); a student engagement approach (which in this study I dub the 'seminar approach'); Pascarella's general model of assessing change (institutional influences on students, particularly those exerted by other individuals, primarily students and faculty staff, and also family and non-college peers);Weidman's (1989) model of undergraduate socialisation focusing on non-cognitive changes such as career choices, lifestyle preferences, values and aspirations; and Bitzer (2005)'s derivative, wellness approach which focuses on holistic models of life (it incorporates six dimensions: physical, intellectual, social, emotional, career and spiritual wellness).

2.10 Livelihood Outcomes: University Stage

2.10.1 Grade Point Average (GPA) and Factors Affecting Academic Progression

Grades are hardly a perfect or holistic measure of learning and intellectual development in that, in generic terms, they represent a student's performance relative to other students rather than how much has been learned (Astin, 1993 in Pascarella and Terenzini, 2005). Confounding the notion of grades is the fact that the methods employed for their calculation and the standards applied are at the discretion of different institutions and departments which confuses the meaning of the grade or grade point average (GPA). According to Pascarrella and Terenzini, (2005), grades are most likely to be confounded measures, reflecting issues like a student's previous academic achievement, general intellectual capacities and abilities, academic skills (such as computer literacy and study and time management skills), and personal traits (such as motivation, self-discipline, and perseverance). Moreover, improved academic and post-school outcomes favour students with increased self-determination skills (Martin *et al*., 2007; see also Meighan *et al*., 2003). The literature points to the fact that the timing of initial enrolment, academic performance, parental education, household characteristics, and economic factors have a substantially greater impact on those who enrol as full-time students (Stratton *et al*., 2007).

Aligned to the measures and determinants of academic performance is Vincent Tinto's (1975, 1993) student integration model which has informed the conceptual basis of research on perseverance and graduation rates. The model is supported by the Noel Levitz School (see Bean *et al*., 1980; Cabrera *et al*., 1992; Tinto, 1993; and Astin, 1984; see also Beggs *et al*., 2003). For instance, Bean *et al*. (1980) argued that students who successfully integrate into the college community tend to persevere, while Cabrera *et al.* (1992) noted that persistence is a function of the match between an individual's motivation and academic ability and his/her academic and social characteristics (see also Bean and Metzner, 1985; and Pascarella, 1985). Astin (1984) asserted that a student's tendency to drop out of college is inversely related to their degree of direct involvement in the academic and social life of the institution (MacFarlane 2007; see also Moletsane, 1995). Pascarella and Terenzini (1991) asserted that "educational aspirations are more likely to influence contact with faculty than contact with faculty is to influence educational aspirations".

2.10.2 Students' Aspirations after graduation

Studies have shown that students become mature, knowledgeable, and focused during their time at university or college in thinking about a career (Pascarella and Terenzini, 2005). This notion is linked to Luzzo(1993)'s thesis on career maturity which Savickas (1990, in Pascarella and Terenzini, 2005) defined as the readiness of an individual to make informed, age-appropriate career decisions and cope with developmental tasks. Other studies have focused on the relationship between poverty and career aspirations. For instance, Ray (2006) underscores the boundaries laid down by a person's aspiration window that are strewn with the experiences of peers and attainable people who are in close proximity in terms of being economically or/and socially close or having access to similar mobility (socially and economically). Lubben *et al*. (2009)'s study concurred with Ray (2006) and highlighted the notion of behaviour, noting that behaviour was determined by the aspiration gap (the difference between the current career standard and that aspired to). Thus, a small and a very large aspiration gap will fail to influence behaviour (Lubben *et al*., (2009). Another interesting body of literature focuses on two categories of factors that affect career aspiration. Lent (1994)'s Social Cognitive Career Theory (SCCT) is very useful here. The first SCCT category includes personal factors such as individual interests, perceived abilities and non-abilities, perseverance and flexibility or adjustment to new situations (Lubben, 2010). The second category concerns contextual factors that include perceived social and political demands, role conflicts and adopted role models (Lubben *et al*., 2009). Pertinent to this study, this SCCT literature (Lent *et al*., 2005; Byars-Winston, 2006) asserts that SCCT explicates the effects on career aspirations of disadvantaged students in terms of perceived support mechanisms for, and barriers to, pursuing their career choice. Disadvantaged students are more inclined to see barriers to pursuing careers in their difficulty in meeting academic demands, role conflicts and destabilising life experiences (Lubben *et al*., 2009). Countering these barriers requires problem-focused (solving) behaviour, harnessing social support from peers and faculty staff, especially lecturers, and relying on personal strength (Lubben *et al*., 2009). Noteworthy is a body of literature focusing on the forces shaping career aspirations and the expectations of university or college students and the attainment of career outcomes after graduation. Some students with a working class parent have career expectations that fall short of their aspirations. Lubben *et al*. (2009)'s findings did not reflect consistent gender differences in career aspirations, expectations, and attainment. However, SCCT as explained

by Lent *et al*. (1994)is predicated on the assumption that students have well-founded career aspirations which are concomitantly used to identify barriers to achieving these (see Lubben *et al*., 2009), which may not be the case with disadvantaged students in South Africa who lack career information input at school.

The attainment of a bachelor's degree has important implications for the type of job or work one obtains as well as an individual's life earnings. A bachelor's degree gives an individual occupational status or prestige, and an advantage over high school graduates. On this note Pascarella *et al*. (2005) observed that "one received a 'bonus' for completing the bachelor's degree above and beyond the increment in job status or earnings for every year of post-secondary education". In the USA, the relationship between earnings and a bachelor's degree is illustrated by the Current Population Survey from the Census Bureau ("Is College Still Worth the Cost?" 1998, in Pascarella and Terenzini, 2005).

2.11 Conclusion

This chapter surveyed the literature pertinent to the variables raised in the SMS downloads, the questionnaire survey and the qualitative explication of interview data. It has revealed that SES variables such a familial characteristics, school background, student financial aid, parental educational attainment; individual characteristics such as abilities and self-efficacy; institutional characteristics such as resources, social and academic support systems and student counselling services; and social wealth such as peer interactions and student-staff interactions outside the classroom are related to students' academic achievement. This resonates with SLA and social capital theory that asserts that while at university, students are not only academic beings, but also social, economic, and political 'beings'. However, the problem is that most of this literature tends to study students as a homogenous body; thus I am not convinced that the (higher) education sector really understands students' diverse needs in terms of learning. For this reason, it is important to engage conceptual frameworks that emphasise bottom-up approaches such as the SLA to get to the heart of issues affecting different categories of students. Within the category of disadvantaged students, some are more underprivileged than others. Novel to this study was an attempt to differentiate the different categories of disadvantaged students through the use of the quintile system (see also chapters one and seven).

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter describes the research methodology adopted in this study and examines the theories behind the methodology chosen.

3.2 Discourses of Research: The SLA-Social Capital-Social-Justice Synthesis

A description of mixed methods research begins with a discussion of paradigms (Rocco *et al*., 2003, discourse replaces paradigms). I prefer the term discourses, hence the title of this subsection. Research is a co-constructed reality or process, not some objectifiable truism waiting to be uncovered through positivistic scientific inquiry (see Astley, 1985; Hycner, 1986). The choice of analytical tools, whether qualitative or quantitative, should be consistent with the philosophical and theoretical underpinnings of the study developed in the conceptual framework (Smyth, 2006). In this study these discourses are: SLA, social capital and social justice (refer to chapter 1).

SLA as an analytical tool promises three things in an attempt to understand the impact of SES variables and others on the academic progress of students from low quintile schools at university, namely: livelihood context, livelihood assets and livelihood outcomes (see Omosa, 2002). Social capital, on the other hand, promises to analyse the phenomenon under study from five spheres of social capital creation (refer to chapter one). Social justice focuses on interventions to ensure that, where applicable, policies are biased towards the poor, in this case students from low quintile schools (see chapters one and seven).

This study kick-starts from the premise that the impact of SES and other variables on the academic progress of low quintile students in higher education institutions can only be understood in the context of livelihoods, social capital and social justice. Particular emphasis is placed on understanding the relationship between SES variables, gender, quintile and

matric score and academic progress in terms of the mean GPA and time-to-degree variables (graduation, attrition rates). Of particular importance are the livelihood strategies (peer learning, friendship as social capital) that low quintile students pursue, the development or change that has taken place between the time of registration/enrolment and graduation and their future contemplations in terms of career aspirations; and the institutional policies to address vulnerabilities (financial aid schemes such as NSFAS, student support services).

The SLA-social capital-social justice framework is a suitable approach to analyse the impact of SES, the learning environment and other variables on the academic progress of students from low quintile schools at university because of its range of strengths. For instance, the SLA is people-centred, holistic in its approach, and dynamic. It acknowledges that marginalised groupings such as students from low quintile schools have answers to their learning problems, while upholding empirical facts as demonstrated in chapters four and five (see Chambers and Conway, 1992; Omosa, 2002). The *status quo* in higher education institutions allows universities to place responsibility for success on students (terms such as 'student failure' or 'students' success' demonstrate this *status quo*) rather than placing the responsibility on the institutions themselves.

The other strength of this approach is its emphasis on vulnerability to various phenomena and how these shape livelihood strategies, all of which come to determine the outcome, in this case academic progress, in terms of graduation or dropout or failure. From this approach we can adopt a definition of academic progress that goes beyond academic performance in terms of GPA, but incorporates student change or development from the entry point to exit and puts checkpoints in place between these two points (registration and graduation) and after graduation (career aspirations and development agendas students wish to pursue to uplift their communities). Thus, a definition of academic progress that encapsulates asset base, social relationships, vulnerability impacts, experiences and perceptions unfolds. Therefore, the main strength of the SLA-social capital-social justice framework is its analysis of the impact in context (see also Omosa, 2002 on SLA). The extent to which this study is phenomenological is based on the assumption that SLA, with its emphasis on livelihoods and the livelihoods context, helped us unravel the lived experience of students.

3.3 Research Methodology

3.3.1 Mixed Methods Research Design

A number of approaches could be used to capture the impact of SES and other variables on academic progress within the SLA approach. In the first instance, from SMS downloads and CHES data, a random sample of 144 disadvantaged students was selected for the survey (refer 3.3.3 Data Collection for final survey sample). From this sample 10 students were selected for interviews. The participants were further stratified into 1st years, 2nd years, 3rd years, 4th years and other (medical students). The rationale for this stratification was to have all levels of study represented.

From the CHES data of 234 886 cases, 10% was selected for the comparative analysis of the performance of students from disadvantaged schools with those from advantaged schools (former Model C schools). Students were stratified into quintiles 1, 2, 3, 4 and 5, with quintiles 1, 2 and 3 forming the low quintile category and 4 and 5 the upper category.

This study gathered objective data from SMS (disadvantaged students' bio-data, GPA, quintiles: see section 1.7.4) and a questionnaire to *quantitatively* process by means of statistical procedures such as, tables, histograms, cross-tabulations, T-tests, analysis of variance (ANOVA). Qualitative information about multiple, subjective realities (perceptions, learning experiences etc.) was gained by conducting a comparative analysis of responses to open-ended questions in the interviews and questionnaire. Mixed Methods Research simply refers to the use of both qualitative and quantitative methods in the same study (Creswell, 2003).

There are a number of ways of conducting mixed methods research, namely, triangulation; complementarity, development; initiation; and expansion (see Rocco et al., 2003; Onwuegbuzie and Teddlie, 2003). This study used qualitative and quantitative data sources for the purposes of complementarity, development and triangulation rather than compatibility. Triangulation as used in the context of this study refers to convergence or corroboration concerning the same phenomenon. Its purpose is to improve the study's validity. In this study, triangulation is illustrated by using a quantitative comparative analysis of the performance of students from low quintile schools and advantaged schools; the quantitative questionnaire and qualitative interview are utilised to assess disadvantaged

students' experiences and perceptions regarding their socio-economic and material and academic progress. The development purpose was employed simply to guide interviews, as these were guided by interesting findings that arose from the survey questionnaire. Development in this context means using the results from one method to help inform another method (Onwuegbuzie, 2002), in this case the interviews. To improve the study's validity, complementarity measures 'overlapping', but also different facets of a phenomenon under study were employed.

3.3.2 Quantitative and Qualitative Data

Quantifiable factors were generated both from the SMS (see section 1.7.4 disadvantaged students for explanation) data and the questionnaire. Quantifiable factors included bio-data such as GPA, quintile, gender, matric scores (see also chapter 4 on performance at university of learners from disadvantaged schools and chapter five on socio-economic variables such as household income, family size, mean GPA, qualification type, year/level of study and learning environment variables). Qualitative factors were derived from the open-ended section of the questionnaire and interviews, and these include emotions, words (perceptions and experiences about residence accommodation, the learning environment at university and others), and explanations in open-ended answers (refer to chapters five and six). In this case, quantifiable factors are said to be objective, while perceptions are subjective. My experiences and perceptions as a researcher in this study are subjective. The ontological, epistemological, and methodological assumptions expounded by pragmatist and/or constructivist researchers provide a strong philosophical impetus for many mixed-method approaches (Guba & Lincoln, 1994; Lincoln & Guba, 2000), illustrating a researcher's freedom to use appropriate tools to make meaning from inquiry (Johnson & Onwuegbuzie, 2004; Tashakkori & Teddlie, 2003).

3.3.3 Data Collection

This section consisted of three stages.

First, from SMS downloads of students registered in 2008, a sample of 144 disadvantaged students was selected using the school quintiles which were available at that time in KZN.

Second, a questionnaire with mainly quantifiable questions (focusing on biographical information, socio-economic conditions, learning and teaching, and university environment) was drawn up (see Appendix A) and electronically sent to the 144 students identified from the SMS downloads. The response rate was very low, with only four students responding. In spite of this hurdle data had to be collected. Thus, I had to track students to the residences on- and off- the four Durban UKZN campuses. A total of 85 questionnaires were returned. Only 41 were valid and 44 were discarded because they did not fulfil the criteria of disadvantaged schools as described in this study. The other criterion used for identifying these students was that they were receiving financial aid or were financially needy as a proxy for disadvantage or disadvantaged student. Most of the students in the sample were recipients of financial aid (NSFAS).

Third, from these students, a smaller sample of 10 students was selected for the interviews. Eight turned up for interviews. Thus, eight interviews were conducted each lasting, on average, between 30 and 40 minutes. From the data generated from the interviews, I suspect that a sample of 10 students was over-ambitious, given the amount of data generated from the interviews for a single study which has a defined life-span and is resource-constrained. Five would have been ideal. Nevertheless, interviews with open-ended questions were used to tap into these students' perceptions about their experiences. A digital recorder was used to record the interviews. These (interviews) sought to ascertain their perceptions regarding their academic progress, and their experience of the learning environment at UKZN. The interviews followed up on interesting findings from the quantitative phase (see Appendix B.

3.3.4 Sampling

In the quantitative phase, a questionnaire was administered to a sample of 144 disadvantaged students. Eighty five students answered the questionnaire. I expected a 75 % return rate. When I failed to attain this rate, I tracked the selected students down to their residences; and

solicited their consent to take part in the study. After this process and having eliminated those who did not come from disadvantaged schools, the sample comprised 41 low quintile students (from quintiles 1, 2 and 3). In the qualitative phase, face-to-face interviews were conducted with eight students from my sample.

As noted earlier, the sample selection was also done purposefully (Strydom and De Vos 1998) to meet the criteria of disadvantaged, and availability sampling was also applied (Grinnell, 1988) in terms of the students who were available for interviews when contacted. The CHES and SPS data, and those tracked down to residences (four campuses namely: Howard College, Westville, Edgewood and Medical School) provided a spread of disadvantaged students across the University. The sample reflects many different qualifications and disciplines, as well as a gender balance, although it is not proportionally representative of the gender demographics within UKZN. Distance students (who amount to some 25% of registered students) were excluded from the sample.

The students interviewed included 1styear students in their second semester; 2nd year students in their second semester; 3rd year students in their second semester; and fourth year students. Although it was not possible to do a longitudinal study across six years, the interviews attempted to tap into students' memories of their circumstances in earlier years and their lived experiences in their academic journey. The students selected for this research were those who had actually experienced the phenomena under study (their perceptions of and experiences in their academic progress).

3.3.5 Data Analysis

Data analysis comprised two components, namely quantitative and qualitative as required by the Mixed Methods Research Design employed and the data collection instruments indicated above.

3.3.5.1 Quantitative Component: Statistical Methodology

IBM PASW version 19.0 was used to capture and analyse the data. A p value <0.05 was considered as statistically significant. The technique utilized in this analysis was analysis of variance (ANOVA) to see if means are different, which was mainly utilised for the analysis in chapter four. This is useful in testing the differences between means for different variables of interest. Thus, if significant differences (close to p-value=0.050) were picked up, a follow-up test (Duncan's multiple range test for differences of means) was performed to determine which means are different and to what extent they are different. Duncan's new multiple range test (MRT) is a multiple comparison test (or pairwise comparisons) used to ascertain whether three or more means are significantly different in an analysis of variance (see Kirk, 1995). Duncan's MRT is especially protective against false negative (Type II) error at the expense of having a greater risk of making false positive (Type I) errors other methods (Bonferroni, Scheffe, Turkey etc) are prone to (see Dallal, 2001;Steel *et al*., 1997).The choice of Duncan's MRT was based on the ranking of multiple comparison methods by conservatism (Dallal, 2001). It is a test that does not protect the experiment wise α level - p-value=0.05 (Dallal 2001; Steel *et al*., 1997).

Independent samples t-tests were used to compare mean GPA between two independent groups (e.g., male *versu*s female students). This technique was utilised mainly in chapter five of this study.

Pearson's chi square tests were used to compare categorical variables between two or more groups (see chapter five). Mann-Whitney tests were used to compare the median number of courses failed between those with and without a father, stratified by year cohort. Mann-Whitney tests were also used when two independent groups were being compared with respect to median income and number of earners (refer to chapter five).

In chapter four, most of my statistical analyses did not yield significant positive relationships between or amongst variables because of the smallness of the sample.

3.3.5.2 Qualitative Component: The Explication[15] of Interview Data Procedures[16] in this Study

This study used a mixed-methods approach to elucidating the conditions of disadvantaged students. However, the interviews of 8 students were used to eliciting accounts from participants about their lived experience during their high school and university life.

The interview schedule contained 17 questions categorised under six sub-headings namely: pre-university experience (questions 1, 2, 3, and 4); first year experience at university (5, 6, 7, and 8); current living and material conditions at university (9, and 10); the teaching and learning environment at university (11, 12); the spending habits of students (13, 14); and career aspirations after graduation (15, 16, 17). It was designed after reviewing the salient findings from the questionnaire survey. Next I delineate interview procedures followed in this study.

Transcription

The first step in explicating my interview data was to have the digital recordings of interviews transcribed. This included the literal statements and also noting important non-verbal and para-linguistic communications. As I read the transcripts I noted units of general meaning on the right margins of the transcripts, which were later coded into NVIVO in free nodes.

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[15] I am uncomfortable with using the term 'analysing' when it comes to explicating interview data because 'analysing' etymologically means 'breaking into parts' which is dangerous because the context of the whole (gestalt) get lost; thus the researcher is tempted to speak for the data rather than the data speaking for itself. In this study borrowing from Giorgi, I have employed the term explication which means an investigation of the constituents of a phenomenon while always maintaining the context of the whole. That said, my focus is on the lived experiences of students from disadvantaged schools.

[16] These procedures should not be viewed *sui generis*, as in actual fact, they do not exist, but they were created here for technical purposes to give the reader a picture of how I went about explicating my interview data. The explication procedures applied should be dictated by the phenomenon under study. This perspective dictated the procedure used in this study.

Delineating Units of general meaning – Free Nodes in NVIVO

In this study this process took place at nodes, specifically free nodes. Derivative from the name, these are nodes 'free' of organisation. In other words, they are containers of 'loose' ideas which are not conceptually related to other nodes in my project (Bazeley, 2007; QRS, 2008). Immediately after transcribing the interviews I generated themes by reading through the transcripts, and penning them in the margins of each transcript before typing them and including them in the main transcript for coding in NVIVO. The main goals of coding are to identify the categories for thinking about your data and to gather in a category all the data about it (QRS, 2008). In this study, nodes became containers or places to store and code data of individual interviews. Further they contained evidence within my sources supporting them. Thus, according to QSR (2008), "creating nodes and exploring nodes is a way to think 'up' from the data and arrive at a higher level of explanations and accounts". Further, at free nodes general ideas were gathered from individual interview transcripts, and also following the structure of interview schedule (**see Appendix B: Interview schedule**).

At this stage the meanings are those experienced and described by the participants, irrespective of whether they are later found to be essential, contextual or tangential to the structure of the experience (Hycner, 1985). The end-product is called a unit of general meaning which is defined as:

> "... those words, phrases, non-verbal or para-linguistic communications which express a unique and coherent meaning (irrespective of the research question)" (Hycner, 1985).

At free nodes all cases and general themes about cases for example, 4th year, 1st Year, 3rdyear and 2nd year were coded after importing the transcriptions into NVIVO sources called internals. Here I had to gather all the information about each case, say for instance about their career aspirations after graduation; living and material conditions at university; the teaching and learning environment at university; pre-university experience; and their first year experience at university, organized in alignment with the interview schedule attached as Appendix B. Coding in NVIVO is the process of bringing together passages in your data that seem to exemplify an idea or concept represented in the project as nodes (see QRS, 2008).

Clustering units of relevant meaning – At Tree Nodes

From the general display of coding data I moved to a more structured 'logical' representation of data, the tree nodes. **Tree Nodes** were used in this study to represent the concepts and categories in my project which were logically related as they can be organized in a hierarchical structure (i.e. category, subcategory) (see QSR, 2008; Bazeley, 2007; Creswell, 2003; Welsh 2002). After clustering themes of relevant meaning in tree nodes in NVIVO these themes were then explicated and illuminated textually. Thus, all these themes are directly derived from the data (transcriptions) as also reflected in the categories in nodes. They then allow textual data to speak to these themes as they emerged from the data; that is allowing the data to speak for itself. The textual narratives (or quotes from participants) give these themes their textual content and context as they emerge.

Contextualization of themes

After the general and unique themes had been clarified, it was helpful for this researcher to situate these themes back within the overall contexts or horizons from which they emerged (Hycner, 1976). As Giorgi (1971) states: "...the horizon is essential for the understanding of the phenomenon because the role that the phenomenon plays within the context, even if it is only implicitly recognized, is one of the determiners of the meaning of the phenomenon". This meant going back to the source from which they emerged, the transcriptions, and looking at the 'ordering' provided by interview schedule.

Determining themes from Clusters of meaning and Delineating units of meaning relevant to the research question – Beyond Nodes

This was a critical phase in the explanation of data as it addresses the research question. Once the units of general meaning had been established and the contextualization of themes considered, the researcher was ready to address the research question to them. The researcher addressed the research question to the units of general meaning to ascertain whether what the participants had said responds to and illuminates the research question or the objectives of the study (Hycner, 1985). The researcher interrogated all the clusters of meaning to determine if there were one or more central themes which express the essence of these clusters (and that portion of the transcript), which culminated in the textual explications displayed in chapter six and also explained in the immediately preceding step. This procedure addressed more of

the *gestalt* of the relevant segment and the clusters of meaning. As shown in chapter 6, the clusters of meaning are presented textually by statements from participants. It should also be noted that the statements which were clearly irrelevant to the phenomenon being studied were not recorded. Again, where there was ambiguity or uncertainty as to whether a general unit of meaning is relevant to the research question, I 'erred' by including them.

I also used the model explorer tool in Nvivo, a tool that is useful for mapping out diagrammatically how the themes relate to each other (see Welsh, 2002) to model my project, culminating in a graphical display of contours of disadvantage and academic progress presented in histograms in chapter six.

3.3.6 Strengths and [De]Limitations of Mixed Methods Research

Qualitative and quantitative research used together produce more complete knowledge that is necessary to inform theory and practice. Moreover, mixed methods research provides stronger evidence for a conclusion through convergence and corroboration (triangulation) of findings. This research is people-centred and therefore pragmatic-oriented in the sense that disadvantaged students' experiences and perceptions at UKZN are the focus. The subjects selected for the study were individuals who had actually experienced the phenomenon. The researcher needed to bracket his/her own experiences, which was difficult to do. From the proposal stage of this thesis I listed all the issues that I knew about the academic progress of disadvantaged students in the South African context. When I analysed data I kept all these issues out of my analysis. Further, where my views are used in the analysis I have declared this by the use of either 'I' or *mine*. The coding procedure in NVIVO also helped me solve this problem. The themes that emerge in chapter six derive directly from the coding of data from the transcriptions both at free and tree nodes. In this way, data is allowed to speak for themselves rather than first fragmenting them into bits and pieces and then joining them later. This is as opposed to assuming prior knowledge before analysing data.

UKZN and the students from low quintile schools provide the case study for the explication of the findings of this study. The sample for the survey analysis (chapter five) was small in the sense that only students from disadvantaged schools were selected. However, there was room for comparison and generalisability to other student groups given the fact that, for

chapter four analysis, a reasonable sample was drawn which did not invoke the red light issues associated with sensitive (ethical) issues. Ethical issues such as seeking the informed consent of the participants to access their academic records weighed against the potency or robustness of the results of this study, because few of the participants allowed this researcher to access their results. Moreover, the dictates of 'objectivity' in terms of bracketing my experiences ostracised me from the study, which I really wanted to be part of. The 'I' who is me is missing in the research. I would have loved to engage because this was my research and I should constitute an integral part. This is Meno's paradox (how will you inquire into a thing when you are wholly ignorant of what it is?) that I grappled with and it could not be solved. My initial approach was to get directly involved in the study and express my views with the text in the analyses using *poesis*[17].

3.3.4 Validity Issues

Following Miles & Huberman (1994 in Smyth, 2006)'s method of ascertaining validity, this researcher scrutinized the analysis for specific, contextualized occurrences where data from various sources were convergent or divergent and assessed the generalisability of the process. Beyond the methodological level, a focused literature review was used (refer to chapter two) based on the variables raised in this study. The process portrayed here is that of triangulation.

Triangulation refers to convergence or corroboration concerning the same phenomenon. A typical structure for the triangulation technique used in this study was to have separate sections on quantitative data collection and qualitative data collection, as well as separate sections on quantitative data analysis and qualitative data analysis (see chapters four, comparative analysis of the performance at university of learners from disadvantaged and advantaged schools; and five, on analysis of the survey questionnaire) and qualitative data analysis (see chapter six on explications of interview data). I then provided results, discussion, and conclusion section in which I discussed the results of all analyses. Thus, according to this study these three forms of results have been presented as mainly conflicting

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[17]*Poesis* delves into the nature of ordinary experience as a profoundly aesthetic event, and perception, creation, activity, discrimination, reflection, and culmination as interrelated and interactive components of holistic, *gestalt*-like experiences (Henderson *et al*., 2004).

evidence for findings because they yielded different results for the different reasons discussed in the weaknesses of this study and also in the discussions section.

3.3.5 Ethical Issues

UKZN requires that students and staff or any person doing research within the university receive ethical clearance from the university. It is within this university-wide ethical framework that I state all the ethical issues in this study. In the first instance, my study involved having access to sensitive information from university student records (GPA) (including financial aid), and getting consent from the concerned students to interview them. Permission to access student records from the Department of Student Records at UKZN was sought and granted. A consent statement was drawn up stating that that: participation by students in this research is voluntary; the researcher ensures complete confidentiality; protection of the identity of individual participants; the information collected in this study will not be shared with any other person; data from interviews will be kept in a locked filling cabinet available only to the researcher for at least five years; and that publication of the material collected will ensure the anonymity of the participants. The participants were informed that they could withdraw their participation at any time during the duration of the research exercise and have any information associated with their participation removed. Finally, participants were informed that there were no potential risks or discomfort resulting from their participation in this study. There will be no direct benefits from participating in the study in terms of physical payment; however, there will be benefits in terms of this study informing institutional changes that could benefit students and society in general. Participants were informed and their consent sought concerning the use of a digital recorder to record interviews. In the final analysis, issues that presented dilemmas were those of getting informed consent to access academic records. Female students in particular were reluctant to sign the consent letter to allow me to use their records; this remained an unresolved issue, illustrated by the sample size of the survey analysis presented in chapter five. However, a mitigating factor shown in the analysis in chapter four, allowed me to use academic records from the database, because this constituted ‘dead’ data which did not invoke issues of consent from the students but ethical clearance from the university.

3.6 Conclusion

In this study, in the first instance, I was interested in analysing the influence of socio-economic (such as income, family size) and biographic (such as gender, matric score, and quintiles) variables on academic progress (e.g. GPA, time-to-degree, dropout or failure) of students from low quintile schools. Secondly, I was interested in the perceptions and experiences of students from low quintile schools about their material and socio-economic circumstances and learning environment while they pursued their studies at university. To accomplish these, a multiperspective approach was a must. The SLA-social capital-social justice framework helped to lay the philosophical groundwork. First, this integrated or synthetic model established that the phenomena under study needed to be looked at from the perspective of five factors, namely: livelihood context, livelihood assets, livelihood outcome, social capital and social justice. Thus, a basis for multiple entry (or level) analysis (plurality of methodology and methods) of the phenomena was established. Firstly, Duncan's multiple range test was employed to analyse the performance at university of learners from disadvantaged schools, and secondly, t-tests and crosstabs including chi-square were used to analyse perceptions of students from low quintile schools who are studying at UKZN. Thirdly, a qualitative explication of academic progress, lived experience, and learning environment at university of students from low quintile schools was presented. In the final analysis, this study showed that a disadvantaged background subsumed in the quintile factor was associated with mean GPA at university which a number of local and international studies confirm. Matric score, which is also related to background in terms of the school SES of students from low quintile schools, was a strong predictor of academic progress at university. Thus, the academic performance (livelihood outcome) of low quintile students was influenced by livelihood context, and livelihood asset base.

While most of the analysis in chapter five did not yield positive results on the relationship between SES variables and other variables and GPA, the most important thing is that beyond the statistical analyses themselves, what emerged as salient in this study is the recommendation from the SLA-social capital-social justice framework to view the impact of the factors on the academic progress of students from low quintile schools in context. The major problem facing the South African higher education system is "its inability to speak to the needs of ordinary South Africans from whom it was largely detached" (Bawa, 2000). To change this requires multiple range analyses (methodology) that will be able to capture the

lived experience and perceptions of marginalized student groupings, thus profiling students from a multilevel approach – within the low quintile component (analysis in chapters five and six) and between quintile (chapter four). In this way, the South African higher education system may begin to cater to the needs of ordinary people.

CHAPTER FOUR

PERFORMANCE AT UNIVERSITY OF LEARNERS FROM DISADVANTAGED SCHOOLS

4.1 Introduction

The focus of this chapter is the academic progress at university of students from disadvantaged schools. The objective of the analysis is to determine to what extent factors such as gender, quintiles and matric score (matscore) influence students' academic performance at university. The analysis will help answer the first two research questions in this study, namely: (1) what are the contours of disadvantage that can be discovered through investigating samples of students from disadvantaged schools at UKZN (refer also to objective number 1section 1.4.1, objectives of the study in chapter one)?; and (2) How do the 'contours' co-occur with factors relating to academic progress? (refer also to objective number 2 section 1.4.1, objectives of the study in chapter one)? To illuminate the understanding and interpretation of the findings in this chapter, I restate and describe the theoretical approach of this study as it specifically relates to this chapter. The success of the SLA as an analytical tool to assess impact lies in its promise to explore three things about the population being studied, namely: livelihoods context, livelihood assets and the livelihood outcome. This said, in this chapter the context in pre-university stage becomes asset in the university stage. For instance, quintile which is classified as context in the pre-university stage becomes asset in the university stage. Matric, which is an outcome in the pre-university stage, becomes asset in the university stage. Interestingly, in this chapter, results come from measuring assets to assets (quintile to matric), and assets to outcomes (quintiles or matric to GPA, length of registration) but not context to outcome. For the purposes of this chapter all variables discussed were classified as outlined in table 1 in chapter one of this study.

In this chapter what becomes evident is the livelihood assets (quintile, matric score, gender) and livelihood outcomes (grade point average – GPA, time-to-degree) of the students being studied. These assets are depicted in the classification of schools into quintiles as explained in chapter one (refer table 1). For instance, the quintile score is calculated based on national census data for the school catchment area, and focuses on three main indicators: income (financial capital), the unemployment rate (source of vulnerability) and level of education

(human and social capital). The livelihood context may be a source of vulnerability or strength. From a social capital perspective, the level of education of society or a community constitutes social capital. Disadvantaged students reflect a low social capital base because they come from low SES schools and communities as reflected by a low quintile status (quintiles 1, 2 and 3). A number of studies (South African and international) have affirmed the association between SES and academic progress (refer to chapter two). Thus, understanding disadvantaged students lies in assessing their assets (financial capital, human capital, social capital, and physical capital) based on the context of vulnerabilities within which they operate such as trends, shocks and stresses (for example, student failure, dropout, taking longer to graduate) and environmental factors. Time-to-degree factors refer to the livelihood outcomes which also include graduation within the stipulated time – a positive outcome if a student's livelihood is sustainable (these are further explored in chapters 5 and 6).

4.1.1 Data set and objectives and Methods used in this Chapter

The data presented in this chapter was accessed *via* the CHES database, a download from DMI converted to SPS which enables the creation of new variables such as the quintiles, graduation, and discipline tracks extrapolated backwards from the 2010 Faculties.

The full data set consists of the records of 234 886 individuals who registered at the university (University of Natal, University of Durban-Westville pre-merger, and UKZN post-merger) during the years 1990 to 2010. For each student, 474 variables (cells) have been created in SPS. In cases where the variable did not apply or information was not available, the cell was left blank. Since the study's focus is on students from schools classified according to the quintile only 113 355 (48.26%) of all cases came from such schools and could be used for analysis.

The technique utilized in this analysis was analysis of variance (ANOVA). This is useful in testing the differences between means for different variables of interest. Thus, if significant differences (close to p-value=0.050) were picked up, a follow up test (Duncan's test for differences in means) was performed to determine which means are different and to what extent they are different. The main thrust of this method of analysis is to determine the

association between variables of interest in this study. The method of analysis was rigorous because it did not end with just establishing whether or not there were significant differences in means of different variables but went further to ascertain the extent of differences. The subsets in Duncan's test for differences in means distinguish between variables that have the same mean and those that have different means from those in the subset. All the variables that have the same mean are grouped under in the same subset. Those with a different means appear in another subset.

4.2 GPA (grade point average) *versus* gender

The analysis in this section is based on a random sample of 10%, selected only from the 48.26 of the total data base that come from quintile classified schools. In the tables that relate to specific years the total number of students in each quintile is those registered in that specific year only; and thus is a subset of the total 10% sample of the quintile as set in table 6. In statistical analyses sample size is important in determining significance between or amongst variables. Larger samples, such as the 234 886 individuals from which the 10% was randomly selected, have a tendency to give all the results as significant when in actual fact they are not. The same applies to smaller samples; the analyses derived from them are likely to give results that are not significant throughout. The selection of 10% from the sample was to avoid the two problems emanating from the examples about sample sizes discussed above. Thus, sample size matters in statistical analyses.

Table 4 indicates that there were more females (56%) than males (44%) for the combined quintiles total. These figures are consistent with those of the DMI (2010), which showed that the average intake at UKZN consisted of 58% female and 42% male students in 2010. However, the DMI figures are overall figures for the whole student population at the university including foreign students and these are not categorized into the quintile system. Moreover, DMI figures showed a steady increase in female student intake during the period 2007 to 2009 while the intake of male students showed a decline (DMI, 2010). Furthermore, the results of this study resonate with CHE (2009) figures on gender distribution in higher

education in South Africa, where women constituted 57% of the total headcount enrolment compared to 43% men in 2009.

Table 4 Gender in the 10% sample

	Frequency	Percent
Female	6344	56.1
Male	4963	43.9
Total	11307	100.0

In comparing gender differences with respect to the GPA this analysis indicates that there was no significance in means by gender for the cohort years 1994, 2004 and 2009, but in 1999 the mean for females was significantly higher than that for males, with a p-value of 0.034. Tables 5a and 5b below give an overview of these results.

Table 5a Gender *versus* GPA means, standard deviations

	gender	N	Mean	Std. Deviation
GPA94	female	389	52.56	14.254
	male	465	52.68	15.074
GPA99	female	644	51.59	14.826
	male	577	49.87	13.596
GPA2004	female	920	53.63	14.415
	male	691	53.04	14.939
GPA2009	female	1293	51.65	14.942
	male	885	51.82	14.845

Table 5b Gender *versus* GPA test statistics, p-values

GPA	t	p-value	Conclusion
GPA1994	0.113	0.910	No significant difference in means between genders
GPA1999	2.117	0.034	Mean for females significantly greater than that for males
GPA2004	0.801	0.423	No significant difference in means between genders
GPA2009	0.255	0.799	No significant difference in means between genders

Based on this study gender was not a significant factor as far as mean GPA was concerned in higher education. Gender had no influence on academic performance of students.

4.3 GPA *versus* quintile and gender[18]

The analysis in this section is based on the same random sample of quintile classified schools used in the previous section. The distribution of quintiles is shown in table 6 below. The quintile distribution increases as one goes up the quintile categories. Thus, the lowest quintile contributes fewer students to the institution as compared to upper quintiles four and five.

[18] The analysis from sections 4.3 through 4.7 refer to the gender*quintile pair or comparisons on GPA.

Table 6 Quintiles in the 10% sample

Quintile	Frequency	Percent
1	687	6.1
2	573	5.1
3	1537	13.6
4	2355	20.8
5	6155	54.4
Total	11307	100.0

4.4 Mean GPA according to gender and quintiles in 1994

Table 7a indicates that the quintile variable was a telling factor in terms of influencing the mean GPA in 1994, with a p-value =0.011. On the other hand, gender did not influence GPA.

Table 7a GPA 1994 according to gender and quintiles

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	4411.147[a]	9	490.127	2.300	.015
Intercept	458091.602	1	458091.602	2149.718	.000
Quintile	2787.493	4	696.873	3.270	.011
Gender	88.567	1	88.567	.416	.519
quintile * gender	921.537	4	230.384	1.081	.365
Error	179851.177	844	213.094		
Total	2549434.537	854			
Corrected Total	184262.324	853			

Means for quintiles 1, 4 and 5 in 1994 are significantly greater than that for quintile 2 (see table 7b). Thus, students from quintiles 1, 4 and 5 performed better (had higher mean GPA) than those from quintile 2.

Table 7b Duncan's test[19] for differences between GPA 1994 means for quintiles

quintile	N	Subset 1	Subset 2
2	19	43.76	
3	103	49.40	49.40
1	20		51.72
4	164		51.81
5	548		53.82
Sig.		.079	.213

Given the background of low quintile students one would expect quintile 1 to perform lower than all other quintiles; however the results in this analysis are surprising in that for the 1994, mean GPA for quintile 1 was similar to upper quintile students. There is an anomaly here

about quintile 1 student performance. This being the case, it is plausible to conclude that not all is bad in the performance of lower quintile students. What comes to the fore here is that there was a differential influence exerted on the livelihood outcome (GPA). Thus, the quintile factor as a livelihood asset is a variable to note because of its influence on the livelihoods of students in terms of livelihood outcome (academic progress) than gender. This finding resonates with the subsequent analyses in the other cohort years as shown below (see tables 8a, 8b, 9a, 9b, 10a).

4.5 Mean GPA according to gender and quintiles in 1999

Table 8a below indicates that the quintile factor is a more important variable (p-value=0.009) than gender in influencing mean GPA in 1999. Moreover, the quintile*gender paired was not a significant factor as far as GPA was concerned.

[19]Duncan's test is a multiple range comparison test (or pairwise comparison) delineated in section 3.3.5.1 statistical methodology, chapter 3 and 4.1.1 in chapter four.

Table 8a GPA1999 according to gender and quintiles

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	4037.208[a]	9	448.579	2.220	.019
Intercept	1100543.408	1	1100543.408	5447.011	.000
Quintile	2767.420	4	691.855	3.424	.009
Gender	9.474	1	9.474	.047	.829
quintile * gender	406.312	4	101.578	.503	.734
Error	244676.957	1211	202.045		
Total	3397133.070	1221			
Corrected Total	248714.165	1220			

For 1999, the mean for quintile 5 is significantly greater than for quintile 2. Quintile 2 is the lowest performer. Quintile 1 performed better than both quintiles 2 and 3 (see table 8b below). Thus, there was no significant difference in GPA means between other quintiles based on gender. This confirms that gender was not an important variable as far as GPA is concerned during the years under study.

Table 8b Duncan's test for differences between GPA1999 means for quintiles

		Subset
quintile	N	1
2	40	47.59
3	153	48.43
1	55	48.53
4	273	49.85
5	700	52.01
Sig.		.060

4.6 Mean GPA according to gender and quintiles, 2004

Table 9a illustrates that quintile is a more important factor in terms of its impact on mean GPA in 2004 (p-value=0.001) than gender, even though it was significant with a p-value= 0.064. Thus, gender did not have much impact on mean GPA compared to the quintile factor

for the 2004 student cohort. On the quintile*gender pair the results shown are significant at p-value=0.027, again not stronger than the effect of the single quintile factor.

Table 9a GPA2004 according to gender and quintiles

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	5529.642[a]	9	614.405	2.897	.002
Intercept	1657152.588	1	1657152.588	7813.364	.000
Quintile	3752.417	4	938.104	4.423	.001
Gender	727.500	1	727.500	3.430	.064
quintile * gender	2325.936	4	581.484	2.742	.027
Error	339559.404	1601	212.092		
Total	4935289.696	1611			
Corrected Total	345089.046	1610			

A further test was performed to determine the direction of the preceding findings. A Duncan's test for differences between GPA 2004 means for quintiles revealed that there was a significant difference in mean GPA for the 2004 cohort of students for gender by quintile. In the final analysis, the means for quintiles 2, 3, 4 and 5 are significantly greater than that for quintile 1 (see table 9b). Thus, the quintile factor as a livelihood asset but also a representation of school and community background is an important (but not sole) predictor of academic progress at university.

Table 9b Duncan's test for differences between GPA 2004 means for quintiles

		Subset	
quintile	N	1	2
1	75	48.18	
3	190		52.29
2	66		52.48
4	273		52.82
5	1007		54.18
Sig.		1.000	.346

Table 9c below shows the results of a Duncan's test on the quintile*gender pair which

showed no significance as far as GPA in 2004 was concerned at p-value=0.103. Thus, the pairing of gender and quintile weakens the strength of the effect exerted by quintile alone on mean GPA in 2004.

Table 9c Duncan's test for differences between GPA 2004 means for quintile*gender (qgen)

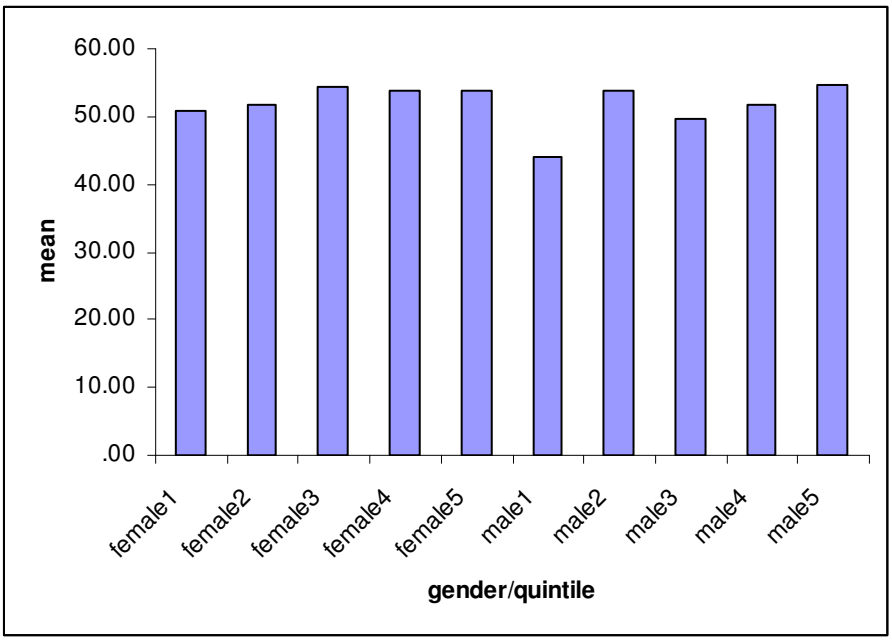
qgen	N	Subset	
		1	2
6	29	44.09	
8	85		49.54
1	46		50.77
9	115		51.59
2	42		51.72
4	158		53.71
7	24		53.81
5	569		53.82
3	105		54.51
10	438		54.65
Sig.		1.000	.103

Furthermore, from figure 1 below, this analysis shows that the mean for the quintile 1 males is less than that for the other (quintile, gender) categories. Thus, male students in quintile 1 were underperforming compared to female and male students in other quintiles in 2004.

Table 9d Explanation of qgen codes

qgen	Quintile	gender	qgen	quintile	Gender
1	1	female	6	1	Male
2	2	female	7	2	Male
3	3	female	8	3	Male
4	4	female	9	4	Male
5	5	female	10	5	Male

Figure 1 GPA2004 according to gender and quintiles



4.7 Mean GPA According to Gender and Quintiles in 2009

There is a significant relationship between quintile and mean GPA in the cohort of students in 2009 with a p-value=0.000 (table 10a). Further, the analysis shows that gender did not have a significant effect on mean GPA (p-value=0.188) during this period. On the one hand the

gender*quintile pair showed some significant effect on mean GPA (p-value=0.059) but was not as strong as the quintile one alone. Thus, gender did not matter as far as mean GPA for students was concerned in 2009. An overview of these results is given in table 10a below.

Table 10a GPA2009 according to gender and quintiles

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	8361.204[a]	9	929.023	4.241	.000
Intercept	3249035.801	1	3249035.801	14831.771	.000
Gender	379.677	1	379.677	1.733	.188
Quintile	5479.659	4	1369.915	6.254	.000
gender * quintile	1995.720	4	498.930	2.278	.059
Error	474920.326	2168	219.059		
Total	6308896.142	2178			
Corrected Total	483281.530	2177			

A further test (Duncan's) for differences between GPA for gender*quintile, revealed two trends:

1. The mean GPA 2009 for quintile 2 is significantly less than that for quintiles 3, 4 and 5; and

2. The mean GPA 2009 for quintile1 is significantly less than that for quintile 5 (table 10b below).

Table 10b Duncan's test for differences between GPA 2009 means for quintiles

quintile	N	Subset		
		1	2	3
2	145	47.08		
1	180	49.56	49.56	
4	429		50.93	50.93
3	315		51.36	51.36
5	1109			53.08
Sig.		.054	.189	.113

Quintile 2 students' academic progress in terms of the mean GPA was marginal compared to those of other quintiles in 2009. Furthermore, lower quintile 1 (49.56) performed below upper quintile 5 (53.08). The two lower quintiles recorded lower mean GPA compared to other quintiles. Thus, higher education institutions should strive to improve mean GPA for lower quintile students. From an SLA perspective explaining academic performance of students at university we need to look at the livelihood assets of different categories of students. In this case the quintile factor comes to the centre spot. We also need to look at why other assets such as gender do not have an influence on livelihoods outcomes (academic progress in terms of GPA)

In table 10c further below, a Duncan's test for differences between GPA means for quintile*gender is performed and shows that:

1 The mean GPA 2009 for quintile 2 females is significantly lower than that for females in quintiles 3, 4, 5 and males in quintiles 1, 3 and 5.

2 The mean GPA 2009 for quintile 1 females is significantly less than that for females in quintiles 4 and 5 and males in quintile 5 (see table 10c).

Table 10c Duncan's test for differences between GPA2009 means for quintile*gender (qgen)

qgen	N	Subset		
		1	2	3
2	92	45.81		
1	102	47.96	47.96	
9	184	49.24	49.24	49.24
7	53	49.28	49.28	49.28
3	176		50.91	50.91
6	78		51.65	51.65
8	139		51.93	51.93
4	245			52.19
5	678			53.00
10	431			53.22
Sig.		.087	.060	.067

Quintile 2 female students performed at marginal levels compared to females in quintile 3, 4, and 5 and males in quintiles 1, 3 and 5. There are conflicting views about the academic performance of female and male students at university. The South African literature shows that male students always outperform their female counterparts while international studies indicate the opposite (chapter two, section 2.3.1 Gender and Social Capital). However, the comparison here is unique in the sense that it involves not only generic comparisons of genders but genders within quintiles and quintiles within genders. The second finding is that in 2009 mean GPA for quintile 1 females was lower than those recorded in quintiles 4 and 5. As noted earlier, quintile in this analysis is a telling variable as far as GPA is concerned.

4.8 GPA 2009 versus matric scores and quintile for each Faculty

For students in the Faculties of Science, Health Sciences, Education, Humanities and Management Studies the matric scores were allocated codes according to the following scheme.

Table 11 Codes for matric scores for the Faculties of Science, Health Sciences, Education, Humanities and Management Studies

matric score	≤27	28-32	33-36	37-40	≥41
code	1	2	3	4	5

For students in the Faculties of Engineering, Medicine and Law the matric scores were allocated codes according to the following scheme.

Table 12 Codes for matric scores for the Faculties of Engineering, Medicine and Law

matric score	≤34	≥35
code	1	2

Due to the relatively large number of categories created by the matric*quintile*Faculty classification, the full data set of quintile classified schools will be used for this analysis. However, a quick glance at the tables shows that a proportion of students coming from different quintiles varies with each faculty (see tables 13b, 14b, 15b, 15c, 16b, 17b, 17c, 19b, 21b and 22b). More students in the Faculty of Management Studies came from quintile 5.

4.8.1 GPA2009 versus matric scores and quintiles for the Faculty of Science

Table 13a shows mean GPA for 2009 according to matric scores and quintiles for the Faculty of Science. The results show a significant relationship between matric score and mean GPA for the year under study at p-value=0.000. On the other hand, the quintile variable did not have a significant impact on mean GPA with a p-value=0.388. When matric score and quintile were paired, the effect on mean GPA is stronger (p-value= 0.000) and is at par with matric score alone (see table 13a below for an overview of these results).

Table 13a GPA2009 according to matric score (matscore) and quintiles for the Faculty of Science

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	108418.743[a]	24	4517.448	26.315	.000
Intercept	3616559.156	1	3616559.156	21067.477	.000
Matscore	31441.990	4	7860.497	45.790	.000
Quintile	710.641	4	177.660	1.035	.388
matscore * quintile	8320.489	16	520.031	3.029	.000
Error	480835.084	2801	171.666		
Total	7766571.714	2826			
Corrected Total	589253.826	2825			

When a Duncan's test for differences between GPA means for matric score for 2009 was performed it yielded the following results:

1 The mean GPA 2009 for matric score categories (codes) 1 and 3 is significantly greater than that for category 2 (see table 11 above for matric categories). One would have expected mean GPA to increase evenly from quintile 1 to quintile 5.

2 The mean GPA 2009 for matric score category 4 is significantly greater than that for categories 1, 2 and 3.

3 The mean GPA 2009 for matric score category 5 is significantly greater than that for categories 1, 2, 3 and 4 (see table 13b below).

Table 13b Duncan's test for differences between GPA2009 means for matric score for the Faculty of Science

Matric score	N	Subset			
		1	2	3	4
2	743	43.89			
1	339		47.60		
3	732		48.74		
4	500			53.42	
5	512				61.11
Sig.		1.000	.160	1.000	1.000

Interestingly, this study shows that matric was a stronger factor in predicting mean GPA than the quintile variable alone in the Faculty of Science for the 2009 cohort of students. Thus, with the increase in matric score, there is an increase in mean GPA in 2009. While background in terms of quintile as a single factor did not matter, it did matter when paired with matric score. Thus, the shape of mean GPA is influenced by a number of factors or a combination of two or more.

Given the preceding conclusion further analysis was done to compare matric score categories within quintiles. This analysis is shown in table 13c below. It concluded that the pattern for the GPA 2009 means of the matric score categories is different for quintile 2 compared to the other quintiles (decrease in mean instead of an increase from matric score 4 to 5). A closer look at quintile 2 is important based on the pattern reflected.

Table 13c GPA2009 means for quintile*matric score categories for the Faculty of Science

quintile	Matric score	Mean
1	1	48.83
	2	46.15
	3	47.61
	4	54.69
	5	58.35
2	1	47.02
	2	43.42
	3	50.45
	4	**52.25**
	5	**49.41**
3	1	48.88
	2	46.03
	3	48.83
	4	52.62
	5	56.42
4	1	46.64
	2	44.62
	3	48.41
	4	53.47
	5	59.62
5	1	45.97
	2	39.57
	3	48.75
	4	53.54
	5	62.42

There is no significant difference between mean GPA for quintile 1 and quintile 2. The explanation for this lies in the classification of schools, which is not perfect. According to the Human Sciences Research Council (HSRC, 2007) the quintile system is only able to identify schools at the absolute extremes (quintiles 1 and 5), and not in the middle (quintiles 2 to 4). However, important to note is that assets (matric alone, and matric-quintile pair) had a strong impact on academic progress (outcome) of students (see table 13a). In contrast, the gender*quintile pair did not have a strong impact on livelihood outcomes – GPA (see table 10a above) while in the current analysis the matric*quintile showed a strong impact. Therefore, it is important to look at which combination of livelihood assets achieves which

livelihood outcomes for different categories of students. This articulation applies to the subsequent analyses where the livelihood asset of matric continues to be a strong predictor of academic progress in terms of GPA; however, the reader should note that this differed with faculties. In some faculties the matric*quintile pair did not show a significant impact on GPA (see table 15a, 17a, 18, for example).

4.8.2 GPA2009 versus matric scores and quintile for the Faculty of Health Sciences

Table 14a below shows that the matric score had a significant influence on mean GPA in 2009 for the Faculty of Health Sciences. The p-value was significant at 0.000. On the other hand quintile had no significant effect on mean GPA with a p-value of 0.142. The plausible conclusion is that matric score was a more significant variable than quintile for the Faculty of Health Sciences' 2009 cohort of students.

Table 14a GPA2009 according to matric score (matscore) and quintiles for the Faculty of Health Sciences

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	42798.063[a]	24	1783.253	12.524	.000
Intercept	1256092.598	1	1256092.598	8821.435	.000
Matscore	18955.701	4	4738.925	33.281	.000
Quintile	983.917	4	245.979	1.727	.142
matscore * quintile	3546.085	16	221.630	1.556	.074
Error	131142.069	921	142.391		
Total	3692910.657	946			
Corrected Total	173940.132	945			

In table 14b below a Duncan's test for differences between GPA 2009 means for matric score was performed to ascertain the pattern of variables at issue, and it showed that the mean GPA for 2009 increases with an increase in matric score. This further confirms that matric score was an influential variable, and thus a single, strong predictor of academic performance at university.

Table 14b Duncan's test for differences between GPA2009 means for matric score (matscore) for the Faculty of Health Sciences

matscore	N	Subset				
		1	2	3	4	5
1	48	43.61				
2	127		51.91			
3	208			58.76		
4	289				63.86	
5	274					66.91
Sig.		1.000	1.000	1.000	1.000	1.000

A further analysis was performed to compare matric score categories within quintiles. It showed that for quintiles 3, 4 and 5 the GPA 2009 means increase when moving from matric score category 3 (33-36) to 4 (37-40) and from matric score category 4 to 5 (=41). This is not the case for quintiles 1 and 2. Quintile 3, 4 and 5 students with a matric score of 37-40 (category 4) and 41 (category 5) recorded higher 'progressive' GPA means in 2009. It is progressive because as one moves up the quintiles, so does the mean GPA (see table 14c below). Thus, matric score remains a stronger influence on the academic progress of students in the Faculty of Health Sciences, regardless of their background.

Table 14c GPA2009 means for quintile*matric score categories for the Faculty of Health Sciences

quintile	Matric score	Mean
1	1	50.11
	2	53.86
	3	56.79
	4	59.36
	5	57.19
2	1	30.18
	2	52.49
	3	62.01
	4	59.52
	5	63.13
3	1	39.21
	2	51.53
	3	56.27
	4	65.50
	5	65.97
4	1	47.17
	2	51.48
	3	59.80
	4	62.19
	5	65.91
5	1	45.17
	2	51.79
	3	59.51
	4	64.79
	5	68.15

4.8.3 GPA 2009 versus matric scores and quintile for the Faculty of Education

The relationship between matric score and mean GPA for 2009 is significant with a p-value=0.000. Quintile was significant but not powerful with a p-value=0.046. The matric score*quintile pair produced a null significance with a p-value=0.746. An overview of these results is presented in table 15a below. Matric score is a single predictor of academic performance (in terms of GPA) for the Faculty of Education for the 2009 student cohort.

Table 15a GPA 2009 according to matric score (matscore) and quintiles for the Faculty of Education

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	25977.488[a]	24	1082.395	6.198	.000
Intercept	1465217.801	1	1465217.801	8390.648	.000
Matscore	12934.292	4	3233.573	18.517	.000
Quintile	1692.516	4	423.129	2.423	.046
matscore *quintile	2089.954	16	130.622	.748	.746
Error	322532.563	1847	174.625		
Total	6154055.556	1872			
Corrected Total	348510.052	1871			

As an important element in this chapter, a Duncan's test for differences between GPA means for matric score in 2009 was carried out to ascertain the pattern of variables under study, and the following findings were derived:

1 The mean GPA 2009 for matric score for categories 2 (28-32) and 3 (33-36) is significantly greater than that for category 1 (=27).

2 The mean GPA 2009 for matric score for category 4 (37-40) is significantly greater than that for categories 1 and 2.

3 The mean GPA 2009 for matric score for category 5 is greater than that for categories 1, 2, 3 and 4 (see table 15b below).

Table 15b Duncan's test for differences between GPA 2009 means for matric score (matscore) for the Faculty of Education

matscore	N	Subset			
		1	2	3	4
1	724	52.36			
2	580		55.99		
3	352		58.67	58.67	
4	154			59.94	
5	62				64.17
Sig.		1.000	.058	.367	1.000

Thus, it is evident that mean GPA for the 2009 cohort of students in the Faculty of Education increases with matric score. That is, as the matric score increases so does the mean GPA. Higher education policy practitioners need to devote more attention to improving the matric scores of learners in the lower quintiles (1, 2 and 3) so that they can gain entry. Of course, this should be considered in concert with other explanatory variables.

Table 15c shows the test for differences between GPA 2009 means for quintiles in the Faculty of Education. This table points to three trends in the mean GPA per quintile:

1 The mean GPA2009 for quintile 3 is greater than that for quintile 1.

2 The mean GPA2009 for quintile 4 is greater than that for quintiles 1 and 2.

3 The mean GPA2009 for quintile 4 is greater than that for quintiles 1, 2 and 3.

Table 15c Duncan's test for differences between GPA 2009 means for quintile for the Faculty of Education

quintile	N	Subset			
		1	2	3	4
1	242	52.13			
2	187	53.32	53.32		
3	383		54.79	54.79	
4	365			56.33	56.33
5	695				57.73
Sig.		.266	.168	.149	.189

The salient finding here is that mean GPA in this Faculty increases as one moves up the quintile ladder. Quintiles 5 (57.73) and 4 (56.33) were higher performers in terms of the mean GPA than the lower quintiles 1 through 3. The implication of this result for higher education is that policy-makers should focus on improving matric or national senior certificate results for low quintile schools. This is for the reason that the trend shown in this chapter is that students perform according to their matric results and quintile categories except for few anomalies highlighted in this chapter. This trend is also consistent with international and South African literature surveyed in chapter two that school SES impact on academic progress of students (see section 2.4.1).

4.8.4 GPA 2009 versus matric scores and quintile for the Faculty of Humanities

As in other disciplines, matric score significantly influences the direction of the mean GPA for 2009 in the Faculty of Humanities with a p-value=0.000. This cannot be said about the quintile variable significance, pegged at p-value=0.935. The matric score*quintile pair is also significant with a p-value=0.011 but not as strong as the matric score influence on GPA in this Faculty. Table 16a provides a summary of these results.

Table 16a GPA 2009 according to matric score and quintiles for the Faculty of Humanities

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	67845.278[a]	24	2826.887	14.415	.000
Intercept	1088204.945	1	1088204.945	5549.167	.000
Matric score	6255.206	4	1563.801	7.974	.000
Quintile	161.278	4	40.319	.206	.935
Matric score * quintile	6211.388	16	388.212	1.980	.011
Error	836768.928	4267	196.102		
Total	11769648.396	4292			
Corrected Total	904614.206	4291			

To ascertain the extent of the differences, a Duncan's test for differences between GPA 2009 means for matric score (table 16b) was performed which showed the following trends:

1 The mean GPA 2009 for matric score for categories 2 and 3 is significantly greater than that for category 1.

2 The mean GPA 2009 for matric score for category 4 is significantly greater than that for categories 1, 2 and 3.

3 The mean GPA 2009 for matric score for category 5 is significantly greater than that for categories 1, 2, 3 and 4 (see also table 11 above for an explanation of codes).

Table 16b Duncan's test for differences between GPA 2009 means for matric score for the Faculty of Humanities

Matric score	N	Subset			
		1	2	3	4
1	972	46.31			
2	1423		49.00		
3	1008		50.39		
4	545			54.58	
5	344				60.06
Sig.		1.000	.069	1.000	1.000

Thus, those students who had matric points between 28-32 and 33-36 recorded higher mean GPAs for 2009 in the Faculty of Humanities than those with a matric score of 27. Interestingly, those students who obtained higher matric scores had the highest odds of achieving the highest GPA means for the 2009 cohort in the Faculty of Humanities compared to those with lower matric grades. This means matric remains the single significant factor that drives mean GPA for the 2009 cohort of students in the Faculty of Humanities. That being the case, a further analysis was performed to search for patterns and the extent of differences of mean GPA when quintile*matric score categories are paired. It was found that for quintile 3 the mean GPA 2009 decreases when moving from matric score category 4 to 5. For all the other quintiles the mean GPA 2009 increases when moving from matric score category 4 to 5 (see table 16c below). Despite the anomaly in quintile 3, this analysis further confirms the strength of the impact of matric score on mean GPA in the Faculty of Humanities. The anomaly in quintile 3 being referred to is that the decrease in mean GPA is in the 'elite' category (high performing category in terms of matric points – 37-40) [see table 16c below]. In other words, students who got high Matric are performing slightly worse than those with slightly lower Matric. This is something I had no capacity to research further with that category of students. However, the sophomore crisis referred to in section 2.5.4 in chapter two could be an explanation.

Table 16c GPA2009 means for quintile*matric score categories for the Faculty of Humanities

quintile	Matric score	Mean
1	1	50.01
	2	49.74
	3	49.46
	4	49.32
	5	57.58
2	1	46.63
	2	51.61
	3	50.24
	4	50.38
	5	61.11
3	1	47.41
	2	48.98
	3	**51.55**
	4	**55.13**
	5	**52.35**
4	1	47.32
	2	50.53
	3	49.92
	4	54.79
	5	54.93
5	1	44.69
	2	48.20
	3	50.41
	4	54.93
	5	60.98

For quintile 3 the mean GPA 2009 decreases when moving from matric score category 4 to 5. For all the other quintiles the mean GPA2009 increases when moving from matric score category 4 to 5.

4.8.5 GPA 2009 versus matric scores and quintile for the Faculty of Management Studies

Table 17a indicates that matric score was a more influential variable as far as mean GPA is concerned than quintile with p-value= 0.000 and p-value=0.087, respectively. On the other hand, the matric*quintile pair was not significant with a p-value=0.336.

Table 17a GPA2009 according to matric score and quintiles for the Faculty of Management Studies

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	50437.308[a]	24	2101.554	13.114	.000
Intercept	2936697.321	1	2936697.321	18325.150	.000
Matric score	7923.370	4	1980.842	12.361	.000
Quintile	1304.625	4	326.156	2.035	.087
matscore * quintile	2852.951	16	178.309	1.113	.336
Error	720666.831	4497	160.255		
Total	12004700.245	4522			
Corrected Total	771104.138	4521			

When a Duncan's test for differences between GPA 2009 means for matric score was performed it yielded the following findings:

1 The mean GPA 2009 for matric score for categories 1 and 3 is significantly greater than that for category 2.

2 The mean GPA 2009 for matric score for category 4 is significantly greater than that for categories 1, 2 and 3.

3 The mean GPA 2009 for matric score for category 5 is significantly greater than that for categories 1, 2, 3 and 4 (see tables 17b and 10 for codes of matric scores).

Table 17b Duncan's test for differences between GPA 2009 means for matric score for the Faculty of Management Studies

Matric score	N	Subset			
		1	2	3	4
2	717	45.70			
3	1003		47.44		
1	208		47.52		
4	1186			49.68	
5	1408				54.14
Sig.		1.000	.919	1.000	1.000

The important finding in this analysis is that mean GPA increased with matric score. Thus the higher the matric score, the higher the GPA. Policy makers should therefore direct their efforts towards improving the matric scores of students from low quintile schools.

A Duncan's test for differences between GPA 2009 means for quintile was also performed to ascertain the extent of the differences in means and revealed that:

1 The mean GPA 2009 for matric score for quintile 4 is significantly greater than that for categories 1 and 3.

2 The mean GPA 2009 for matric score for quintile 5 is significantly greater than that for categories 1, 2 and 3 (see table 17c).

Table 17c Duncan's test for differences between GPA2009 means for quintile for the Faculty of Management Studies

quintile	N	Subset		
		1	2	3
3	476	47.27		
1	227	47.65		
2	130	48.13	48.13	
4	808		49.77	49.77
5	2881			50.54
Sig.		.420	.103	.449

Interestingly, the upper quintiles (4 and 5) performed far better than the lower quintiles and the explanatory variable is the high matric scores which influenced the increase in mean GPA in the Faculty of Management Studies.

4.8.6 GPA 2009 versus matric scores and quintile for the Faculty of Engineering

The analysis of GPA 2009 according to matric score and quintiles for the Faculty of Engineering showed that neither quintile (p-value=0.678) nor matric score (p-value=0.437) nor the quintile*matric score pair (p-value=0.369) had a significant effect on GPA 2009 in the Faculty. Table 18 below gives an overview of the results.

Table 18 GPA 2009 according to matric score and quintiles for the Faculty of Engineering

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	4912.896[a]	9	545.877	2.873	.002
Intercept	777515.813	1	777515.813	4091.440	.000
Quintile	439.574	4	109.893	.578	.678
matscore[1]	114.802	1	114.802	.604	.437
quintile * matric score	814.015	4	203.504	1.071	.369
Error	306526.068	1613	190.035		
Total	5068353.701	1623			
Corrected Total	311438.964	1622			

1 matric score only 2 categories

4.8.7 GPA2009 versus matric scores and quintile for the Faculty of Medicine

Table 19a shows that while quintile was a significant variable in explaining mean GPA in 2009 (p-value=0.006) it was not as strong as the explanation provided by the Matric score with a p-value=0.000. Furthermore, when quintile and matric are paired to determine the effect on mean GPA in the Faculty of Medicine it comes to null significance. Thus, while quintile has some effect on mean GPA, Matric score remains the single predictor of academic progress in the Faculty of Medicine.

Table 19a GPA 2009 according to matric score and quintiles for the Faculty of Medicine

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	10752.215[a]	9	1194.691	8.941	.000
Intercept	710715.863	1	710715.863	5318.990	.000
Quintile	1952.617	4	488.154	3.653	.006
Matric score	4081.261	1	4081.261	30.544	.000
quintile * matscore	549.990	4	137.498	1.029	.391
Error	98209.652	735	133.619		
Total	2763331.399	745			
Corrected Total	108961.867	744			

To understand the extent of the differences a Duncan's test for differences between GPA2k9 means for quintiles as shown in table 19b was performed with the following findings:

1 The mean GPA 2009 for Matric score for quintile 4 is significantly greater than that for category 2.

2 The mean GPA 2009 for matric score for quintile 5 is significantly greater than that for categories 1, 2 and 3.

Table 19b Duncan's test for differences between GPA 2009 means for quintiles for the Faculty of Medicine

quintile	N	Subset		
		1	2	3
2	30	53.53		
1	56	56.03	56.03	
3	90	56.54	56.54	
4	140		58.06	58.06
5	429			61.79
Sig.		.148	.332	.057

The major finding is that the mean GPA 2009 for matric score category 2 is significantly greater (p-value = 0.072) than that for category 1 (64.37 versus 61.13).

4.8.8 GPA2009 versus matric scores and quintile for the Faculty of Law

In the Faculty of Law the results show that quintile did not have a significant impact on mean GPA in 2009. Instead Matric score had a significant influence on mean GPA with a p-value=0.005. Furthermore, paired together quintile*matric scores were not significant. Table 20 provides an overview of these results. Matric score was a single predictor of GPA in the Faculty of Law. Faculties such as Law, Engineering and Medicine admit students with the highest scores regardless of background (quintile as an indicator of school background, including community).

Table 20 GPA2009 according to matric score and quintiles for the Faculty of Law

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	16826.536[a]	9	1869.615	9.454	.000
Intercept	446964.360	1	446964.360	2260.201	.000
Quintile	517.319	4	129.330	.654	.624
Matric score	1589.278	1	1589.278	8.037	.005
quintile * matric score	583.497	4	145.874	.738	.566
Error	228406.197	1155	197.754		
Total	3305564.483	1165			
Corrected Total	245232.734	1164			

The mean GPA 2009 for Matric score category 2 is significantly greater (p-value = 0.012) than that for category 1 (55.08 versus 47.70).

Overall, interfaculty comparisons reveal that, for GPA 2009 versus matric scores and quintile for each faculty, Matric score remained the strongest variable in terms of influencing academic progress than the quintile variable for most faculties except for the Faculty of Engineering. Thus, it is plausible to infer that in the Faculty of Engineering, access or bridging courses and foundation programmes have managed to eliminate the underpreparedness (low matric scores) of students and the SES imbalance embedded or subsumed in the quintile factor (refer to chapter one). In some faculties the matric*quintile pair did not show a significant impact on GPA (see table 15a, 17a, 18, for example). Thus, again, in this analysis, matric score as a livelihood asset at university remained the single telling variable in terms of influencing the academic progress of students.

4.9 GPA 2009 versus quintile for each Faculty

The previous section 4.8 and its subsections provided an analysis of GPA 2009 versus Matric scores and quintile for each Faculty. This section provides an analysis of the relationship between GPA 2009 and quintiles for each faculty. However, before I do that it is important to kick-start this section with an analysis of the relationship between Matric scores and quintile as shown in table 4.9.1 below.

4.9.1 Matric scores for quintiles

There was a significant relationship between matric scores and quintiles with a p-value=0.000 (see table 21a below).

Table 21a Matric score according to quintiles

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	518797.523[a]	4	129699.381	2457.206	.000
Intercept	36374749.928	1	36374749.928	689134.027	.000
Quintile	518797.523	4	129699.381	2457.206	.000
Error	4915970.195	93135	52.783		
Total	1.120E8	93140			
Corrected Total	5434767.718	93139			

When a Duncan's test for differences between Matric score means for quintiles was performed, it showed that the higher the quintile, the better the Matric scores of the learners (see table 21b below). Thus, students from the upper quintiles (4 and 5) scored higher matric points, more than enough to earn them entrance to university.

Table 21b Duncan's test for differences between matric score means for quintiles

quintile	N	Subset				
		1	2	3	4	5
2	3529	27.60				
1	4438		30.17			
3	10893			30.41		
4	18582				32.63	
5	55698					35.57
Sig.		1.000	1.000	1.000	1.000	1.000

Given quintile as a proxy for school and community background, it is plausible to infer that learners from well-resourced schools had higher Matric scores than those from under-resourced schools. Thus, from an SLA approach the quintile factor as a livelihood asset (which also subsumes the SES of community and school) had an impact on the matric scores of students.

4.9.2 Faculty of Science

In the Faculty of Science the quintile factor is related to mean GPA with a p-value=0.000. These results are given in table 22a.

Table 22a GPA2009 according to quintiles for the Faculty of Science

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	10066.951[a]	4	2516.738	12.258	.000
Intercept	5041076.011	1	5041076.011	24553.173	.000
Quintile	10066.951	4	2516.738	12.258	.000
Error	579186.875	2821	205.313		
Total	7766571.714	2826			
Corrected Total	589253.826	2825			

A Duncan's test for differences between GPA 2009 means for quintiles reveals that the mean GPA 2009 for quintile 5 is significantly greater than that for quintiles 1 to 4 (see table 22b). Upper quintile five had the highest mean GPA for 2009 in the faculty of science. Thus, quintile which is akin to livelihood asset at university stage is associated with academic progress in terms of GPA. Thus, academic progress is related to asset base. Those with high asset base (quintile 5 students) perform better than low asset base students (low quintile students). This valuation applies to the subsequent analyses of other faculties where the relationship between GPA and quintile is significant.

Table 22b Duncan's test for differences between GPA 2009 means for quintiles for the Faculty of Science

quintile	N	Subset	
		1	2
2	227	47.54	
3	573	48.71	
4	648	49.38	
1	279	49.57	
5	1099		52.68
Sig.		.062	1.000

4.9.3 Faculty of Health Sciences

Quintile was significantly related to GPA 2009 in the Faculty of Health Sciences with a p-value=0.000. Table 23a provides an overview of these results.

Table 23a GPA2009 according to quintiles for the Faculty of Health Sciences

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	5399.053[a]	4	1349.763	7.536	.000
Intercept	1708914.067	1	1708914.067	9541.224	.000
Quintile	5399.053	4	1349.763	7.536	.000
Error	168541.079	941	179.108		
Total	3692910.657	946			
Corrected Total	173940.132	945			

To test the differences between GPA 2009 means for quintiles a Duncan's test was carried out which revealed that the mean GPA 2009 for quintile 5 is significantly greater than that for quintiles 1, 2 and 3 (see table 23b). The upper quintiles – in this case quintile 5 - performed better than the lower quintiles.

Table 23b Duncan's test for differences between GPA2009 means for quintiles for the Faculty of Health Sciences

quintile	N	Subset 1	Subset 2
2	51	56.21	
1	65	56.23	
3	126	58.60	
4	173	60.12	60.12
5	531		62.89
Sig.		.060	.146

4.9.4 Faculty of Education

Quintile was strongly related to GPA in 2009 in the Faculty of Education with a p-value=0.000. The results of this analysis are provided in table 24a.

Table 24a GPA2009 according to quintiles for the Faculty of Education

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	7469.664[a]	4	1867.416	10.223	.000
Intercept	4624284.139	1	4624284.139	25315.296	.000
Quintile	7469.664	4	1867.416	10.223	.000
Error	341040.387	1867	182.668		
Total	6154055.556	1872			
Corrected Total	348510.052	1871			

A Duncan's test for differences between GPA 2009 means for quintiles revealed that:

1 The mean GPA2009 for quintile 3 is significantly greater than that for quintile 1.

2 The mean GPA2009 for quintile 4 is significantly greater than that for quintiles 1 and 2

3 The mean GPA2009 for quintile 5 is significantly greater than that for quintiles 1, 2, 3 (see table 24b below).

Table 24b Duncan's test for differences between GPA2009 means for quintiles for the Faculty of Education

quintile	N	Subset			
		1	2	3	4
1	242	52.13			
2	187	53.32	53.32		
3	383		54.79	54.79	
4	365			56.33	56.33
5	695				57.73
Sig.		.277	.178	.158	.199

Thus, the higher the quintile the higher the GPA of students in the 2009 cohort in the Faculty of Education. Interestingly, it can be seen that the higher the asset base of students (quintile 4 and 5) the higher the mean GPA. Thus, high asset base students performed better than lower asset base students (quintile 1 and 2).

4.9.5 Faculty of Humanities

In the Faculty of Humanities the analysis shows that there was no significant relationship between mean GPA in 2009 and quintile with a p-value=0.420. These results are shown in table 25 below.

Table 25 GPA2009 according to quintiles for the Faculty of Humanities

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	821.249[a]	4	205.312	.974	.420
Intercept	4485297.974	1	4485297.974	21275.307	.000
Quintile	821.249	4	205.312	.974	.420
Error	903792.957	4287	210.822		
Total	11769648.396	4292			
Corrected Total	904614.206	4291			

The important finding is that the mean GPA for 2009 is not significantly different for the quintiles. The explanatory variables could be the many access and foundation programmes that are implemented in the Faculty with an effect of skewing the results. However, on the other front, from this analysis we can infer that this faculty has managed to lessen the effects of the SES imbalance subsumed in the quintile factor through interventions such access programmes for students from low quintile students.

4.9.6 Faculty of Management Studies

There is a significant relationship between GPA and quintile (p-value=0.000) in 2009 in the Faculty of Management Studies. The results are shown in table 26a below.

Table 26a GPA2009 according to quintiles for the Faculty of Management Studies

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	6020.193[a]	4	1505.048	8.886	.000
Intercept	3752387.623	1	3752387.623	22153.824	.000
Quintile	6020.193	4	1505.048	8.886	.000
Error	765083.945	4517	169.379		
Total	12004700.245	4522			
Corrected Total	771104.138	4521			

A Duncan's test for differences between GPA 2009 means for quintiles was performed which showed that:

1 The mean GPA 2009 for quintile 4 is significantly greater than that for quintile 3.

2 The mean GPA 2009 for quintile 5 is significantly greater than that for quintiles 1, 2, 3 (see table 26b).

The upper quintiles outperformed the lower quintiles in terms of their mean GPA. Given the fact that quintile is a proxy for disadvantage, it is plausible to conclude that school background in terms of asset base played a significant role in students' academic achievement at university.

Table 26b Duncan's test for differences between GPA 2009 means for quintiles for the Faculty of Management Studies

Quintile	N	Subset		
		1	2	3
3	476	47.27		
1	227	47.65	47.65	
2	130	48.13	48.13	
4	808		49.77	49.77
5	2881			50.54
Sig.		.433	.051	.461

4.9.7 Faculty of Engineering

There was a strong relationship between GPA 2009 and quintile (p-value=0.001) in the Faculty of Engineering. The results of this analysis are provided in table 27a.

Table 27a –GPA2009 according to quintiles for the Faculty of Engineering

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	3814.223[a]	4	953.556	5.015	.001
Intercept	1458640.373	1	1458640.373	7671.945	.000
Quintile	3814.223	4	953.556	5.015	.001
Error	307624.741	1618	190.127		
Total	5068353.701	1623			
Corrected Total	311438.964	1622			

Given the significance of the results, a Duncan's test for the extent of differences between GPA 2009 means for quintiles was performed and the conclusion was that the mean GPA2009 for quintile 5 is significantly greater than that for quintiles 2 and 3 (see table 27b).

Table 27b Duncan's test for differences between GPA2009 means for quintiles for the Faculty of Engineering

quintile	N	Subset	
		1	2
3	154	50.89	
2	42	51.02	
4	328	52.74	52.74
1	74	54.33	54.33
5	1025		55.19
Sig.		.100	.228

Students in higher quintiles outperformed their counterparts in lower quintiles. This further confirms the influence of initial social conditions (quintile as school and community background) on students' academic progress at university (see sections 2.4.1 and 2.4.2 in literature review chapter two). To recap, quintile refers to the school background, including family background, because what defines the school is the poverty of the catchment area, and not the school's infrastructural resources (refer to table 1 for classification and application of the SLA approach in this study).

4.9.8 Faculty of Medicine

Table 28a shows that quintile had a significant effect on the mean GPA in 2009 in the Faculty of Medicine with a p-value=0.000.

Table 28a GPA 2009 according to quintiles for the Faculty of Medicine

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	5041.890[a]	4	1260.473	8.976	.000
Intercept	1139273.371	1	1139273.371	8112.611	.000
Quintile	5041.890	4	1260.473	8.976	.000
Error	103919.977	740	140.432		
Total	2763331.399	745			
Corrected Total	108961.867	744			

When a Duncan's test for differences between GPA 2009 means for quintiles was performed it was concluded that:

1 The mean GPA 2009 for quintile 4 is significantly greater than that for quintile 2.

2 The mean GPA 2009 for quintile 5 is significantly greater than that for quintiles 1, 2, and 3 (see table 28b below).

Table 28b Duncan's test for differences between GPA2009 means for quintiles for the Faculty of Medicine

		Subset		
quintile	N	1	2	3
2	30	53.53		
1	56	56.03	56.03	
3	90	56.54	56.54	
4	140		58.06	58.06
5	429			61.79
Sig.		.159	.344	.064

Applying the SLA approach, there was a relationship between quintile in terms of asset base and GPA. Thus, school background counts when it comes to academic progress.

4.9.9 Faculty of Law

There was no positive relationship between quintile and GPA 2009 in the Faculty of Law, with a p-value=0.271. These results are presented in table 29 below.

Table 29 GPA 2009 according to quintiles for the Faculty of Law

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	1087.183[a]	4	271.796	1.291	.271
Intercept	470699.390	1	470699.390	2236.417	.000
Quintile	1087.183	4	271.796	1.291	.271
Error	244145.551	1160	210.470		
Total	3305564.483	1165			
Corrected Total	245232.734	1164			

The conclusion is that the mean GPA 2009 is not significantly different for the quintiles. The explanation could be found in the admission criteria applied by the Faculty of Law during this period (refer to table 12 on codes for matric scores for the Faculties of Law, Engineering and Medicine). The faculty of Law including Engineering and Medicine admit high matric (34-35) students compared to other faculties (refer to table 12 above). Besides, the faculty of Law (then) administered selection tests for its potential candidates. Thus, whether a student was coming from low quintile schools did not matter in terms of GPA 2009 because of the admission criteria, that of selecting students who could finish their degree programmes on regulation time.

Overall, for the GPA 2009 versus quintile for each Faculty (Health Sciences, Education, Management Studies, Medicine) the quintile factor is related to mean GPA with a p-value=0.000 (table 22a, 23a, 24a, 26a, 28a) and a p-value=0.001 for the Faculty of Engineering (table 27a) except for Law (table 29) and Humanities (table 25) where it showed no relationship. From these results it is plausible to infer that some faculties have managed to

lessen the effects of the SES imbalance in terms of the quintile factor through the introduction of access and foundation programmes such as in the humanities. On the other hand, in the faculty of law it seems they have also 'bypassed' the SES imbalance through their admission criteria which include only selecting high matric students (as shown in table 12) including selection tests and also some national benchmark tests. The idea for them, it can be maintained, they focus on individual ability which says let us invest in a proportion of the student population that will graduate within the shortest period of time rather than absolute numbers.

4.10 Graduation and Attrition rates per quintile

4.10.1 Registrations per Quintile, 1990 – 2010

This section provides an indication of the number of students registered in each quintile between 1990 and 2010. Table 30 below presents the registration distribution per quintile between 1990 and 2010 from CHES data. More students were registered for three-year degree programmes (58 004) than for four-year programmes (30 355). The registration distribution increased from quintiles 3 to 5 for three-year programmes and the same trend can be seen in four-year programmes. These figures are important for the ensuing analysis on time-to-degree and dropout rates because registration figures give graduation and dropout rates their context.

Table 30 Number of students registered per quintile, 1990-2011

quintile	reg3	reg4
1	2429	1425
2	1705	982
3	6206	3399
4	11185	6255
5	36479	18296
Total	58004	30357

reg3 and reg4 refer to registrations for three- and four-year degrees respectively.

4.10.2 Time-to-Degree and Graduation Rates for three-year Degrees

Table 31 below shows the number of years a student has been registered for a three-year degree before graduating per quintile.

Table 31 Number of years registered for three- year degree before graduating per quintile, 1990-2004

status/quintile	quintile1	quintile2	quintile3	quintile4	quintile5
Did not graduate	505	376	1709	3582	10812
3 years	236	134	670	1533	7567
4 years	187	117	564	1099	3628
5 years	80	36	238	451	1249
6 or more years	43	31	112	187	456
Total	1051	694	3293	6852	23712
% dropout	48	54.2	51.9	52.3	45.6
% graduates	52	45.8	48.1	47.7	54.4

Chi-square = 481.55 with a p-value 0.000.

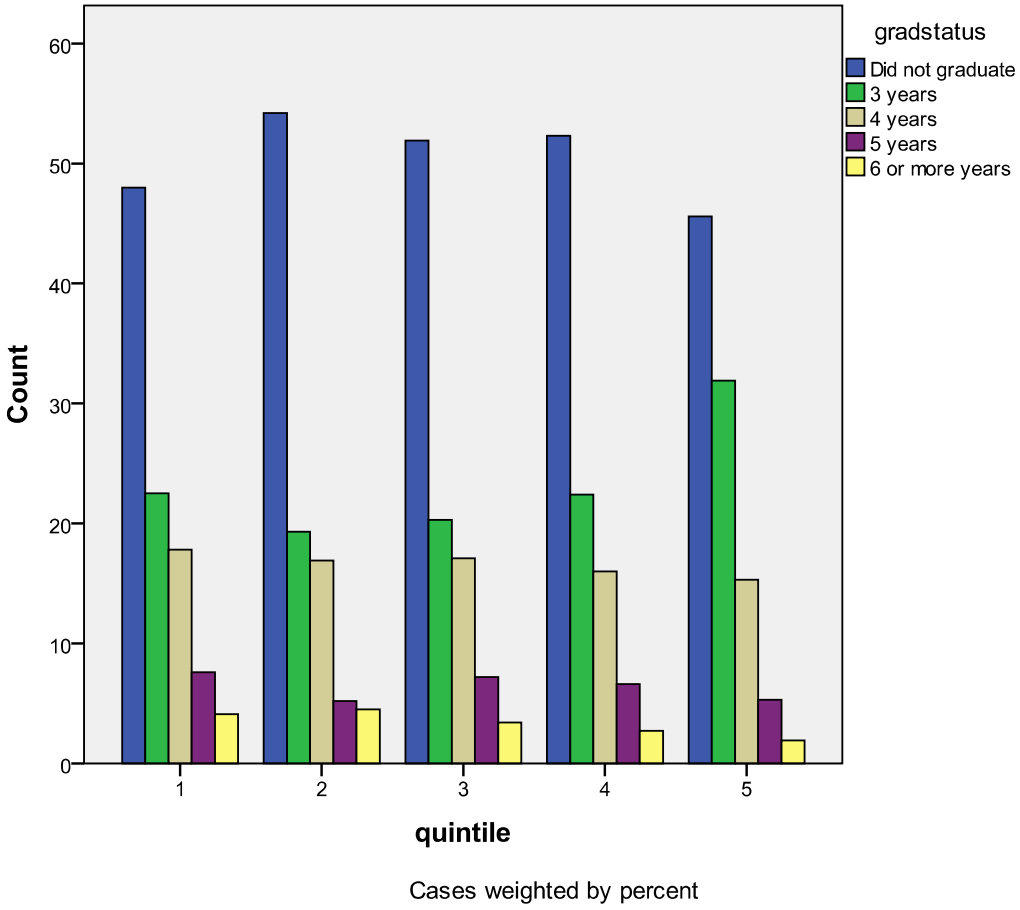
From this analysis three trends have been observed:

1 The percentage that graduated within three years increases from quintile 2 to quintile 5.

2 The percentage that graduates within four years decreases for quintiles 1, 2, 3, 4 and 5.

3 The percentage that did not graduate is the lowest for quintile 5 (see figure 2 below).

Figure 2 Graduation percentages for 3 year degrees for quintile rated schools



The odds that a student will graduate after three years are enhanced as one moves up the quintile categories. Furthermore, upper quintile 5 had fewer students who did not graduate than other quintiles. Thus, the higher the quintile, the lower the dropout rate and the higher the quintile, the higher the graduation rate. Thus, there is an association between the level of livelihood assets (quintile) and time-to-degree measures (graduation on regulation time or dropout).

Interestingly, quintile has an effect on graduation rates (including dropout, as seen in subsequent sections). Graduation is a component of academic progress. Thus, quintile as a measure of background in terms of a school's socio-economic status, including community background, is an important explanatory variable for time-to-degree variables such as graduation or dropout rates.

Time-to-degree variables are important because they give an indication of whether students will eventually graduate or dropout. Academic progress should be viewed in its full cycle, that is, from registration to graduation and what happens to students between these two points.

Institutional policy should focus on identifying at-risk students, that is, those who are vulnerable to shocks and stresses such as failure or dropout; and also strengthening or improving the learning environment for those who are doing well so they can excel.

4.10.3 Time-to-Degree and Graduation Rates for four-year Degrees

Table 32 indicates the number of years a student has been registered for a four-year degree before graduating per quintile.

Table 32 Number of years registered for four-year degree before graduating per quintile, 1990-2004

status/quintile	quintile1	quintile2	quintile3	quintile4	quintile5
Did not graduate	289	160	920	2094	5950
4 years	101	101	403	900	3335
5 years	63	63	214	453	1273
6 years	66	66	192	401	901
7 or more years	28	25	102	167	274
Total	547	415	1831	4015	11733
% dropout	52.8	38.6	50.2	52.2	50.7
% graduates	47.2	61.4	49.8	47.8	49.3

Chi-square = 238.545 with a p-value 0.000.

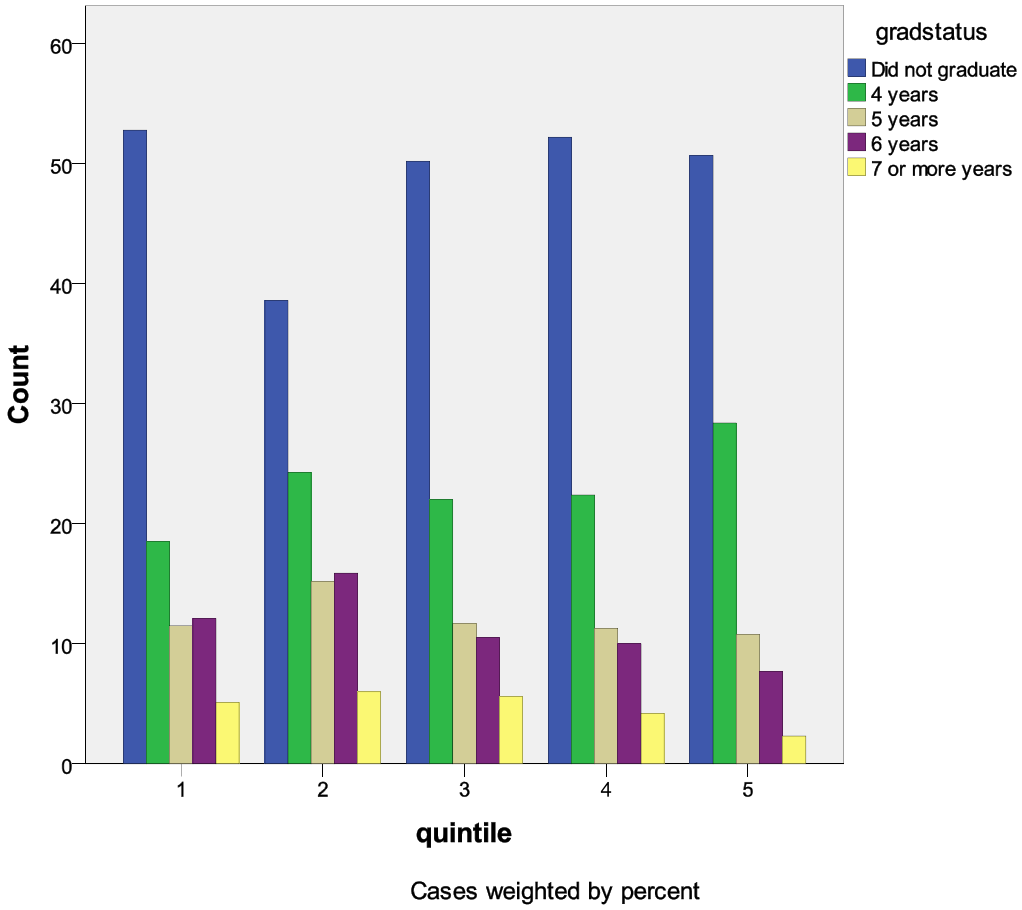
Three conclusions can be drawn from figure 3 below:

1 The percentage that did not graduate is lowest for quintile 2.

2 The percentage that graduated within four years is the highest for quintile 5.

3 The percentage that graduates within five years or more is lower for quintiles 3, 4 and 5 than for quintiles 1 and 2.

Figure 3 Graduation percentages for 4 year degrees for quintile rated schools



As with the three-year degree programmes, the odds that a student will graduate on time (in this case within four years) is dependent on the quintile of the student. Thus, the majority of students who graduated within four years came from quintile 5. Furthermore, most of the students who graduated after five years or more were more in quintiles 1 and 2 than in other quintiles.

The time taken to graduate has implications for both the student and institution. The student who takes longer to graduate consumes resources which could be otherwise used to finance other deserving students. The longer a student takes to complete their degree, the more debt is accumulated especially when the sponsor is the NSFAS, a bank, or Edu-loan. Again here the analysis point to the relationship between the level of assets (quintile) and outcome (length of study measures, graduation or dropout). However, the higher percentage of graduates in quintile 2 (61.4% in table 32) attracts our attention in these cohort years. The performance of quintile 2 which seems to contradict the norm – that low quintile students take longer to graduate or record lower graduation rates – could be due to personality factors such as motivation and improved university environment (improved livelihood assets in terms of financial aid and pedagogical resources) for students from low quintile schools.

Meanwhile, some students from lower quintiles stay longer before they graduate because they are on financial aid (NSFAS) compared to their counterparts who are supported by their families. Those financed from family coffers are likely to graduate on regulation time because parents might withdraw their support should one take longer than expected. This reveals how livelihood assets dictate on the pace at which one arrives at or achieve livelihood outcomes. Thus, terms and conditions apply on the duration of investment on one's education if one's education is financed privately by the family than those whose education is funded from NSFAS bourse, they can take their time (refer to figure 3 above, item 3).

4.10.4 Dropout Rates for Three-Year Degree per Year per Quintile

Between 1998 and 2004 the quintile 5 dropout rate appears to be the lowest and the quintile 2 dropout rate the highest. An overview of these results is provided in table 33 below.

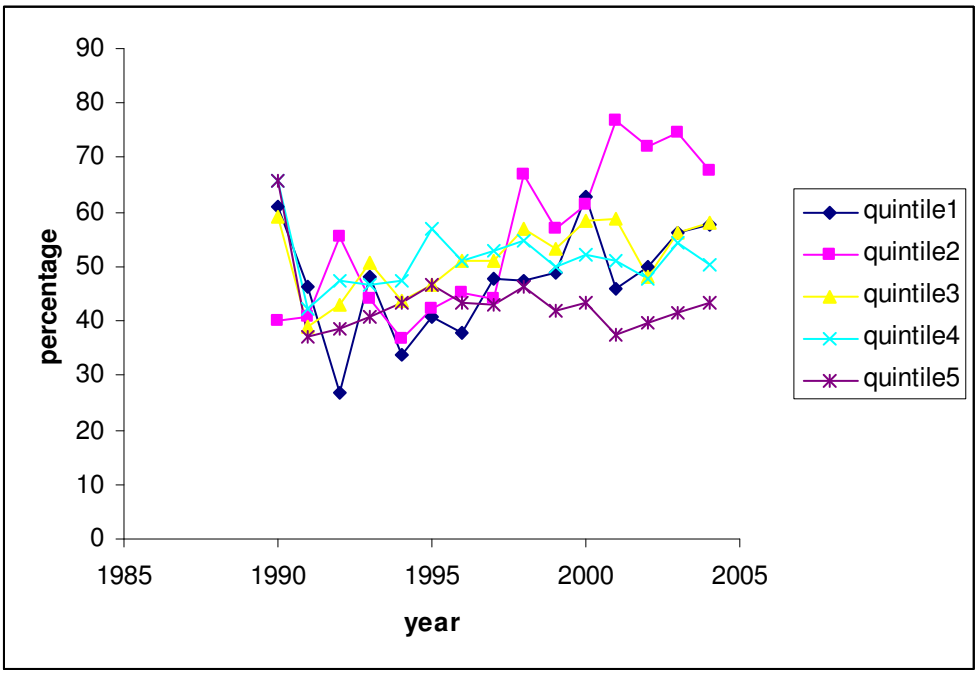
Table 33 Dropout percentage for three-year degree per year per quintile, 1990-2004

year/quintile	quintile1	quintile2	quintile3	quintile4	quintile5
1991	46.4	40.7	38.8	42.2	37.1
1992	26.9	55.6	42.8	47.4	38.7
1993	48.2	44	50.8	46.5	40.9
1994	33.8	36.7	43.8	47.3	43.3
1995	40.8	42.4	46.8	56.9	46.8
1996	37.9	45.1	51.1	51	43.3
1997	47.6	43.9	51	52.8	42.9
1998	47.5	66.7	57.1	54.6	46.4
1999	48.9	57.1	53.4	49.9	42
2000	63	61.2	58.5	52.2	43.2
2001	45.8	76.7	58.7	51	37.5
2002	50	71.9	48.3	47.7	39.6
2003	56.2	74.4	56.2	54.4	41.5
2004	57.8	67.5	57.9	50.2	43.5

Based on this analysis the dropout rate is related to the level of quintile (livelihood asset base). The higher the quintile category, the lower the dropout rate. On the other hand, the lower the quintile category, the higher the dropout rate. Thus, students in quintile 5 were more likely to persist at university and graduate than students from quintile 2. Using quintile as a measure of the socio-economic status in terms of assets, the quintile variable is a strong

predictor of the dropout rate of students in three-year programmes within the period under study. Thus, high asset base students (quintile 5) were less prone to dropout than lower asset base (low quintile). Further, the level of livelihood assets was related the risk or vulnerability to shocks such as failure or dropout for lower quintile students.

Figure 4 Dropout percentage for three-year degree per year per quintile, 1990-2004



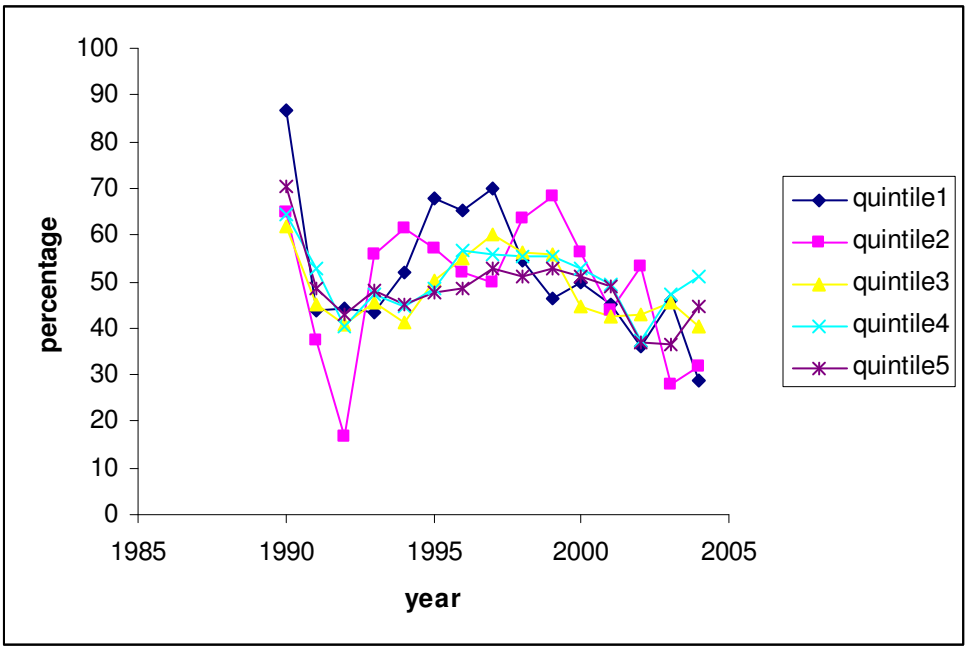
4.10.5 Dropout Rates for Four-Year Degree per Year per Quintile

I could not distinguish between the dropout rates for the quintiles for four-year degrees for the period1990-2004. Thus, unlike in figure 4 above on three-year programmes, Figure 3 on dropout percentages for four-year degrees per year per quintile, 1990-2004, showed no clear pattern amongst the different quintiles.

Table 34 Dropout percentage for four-year degree per year per quintile, 1990-2004

year/quintile	quintile1	quintile2	quintile3	quintile4	quintile5
1990	86.7	65	61.6	64.2	70.4
1991	43.8	37.5	45.1	52.7	48.6
1992	44.4	16.7	40.7	40.5	42.8
1993	43.3	56	45.6	47.2	47.9
1994	51.9	61.5	41	44.5	45.2
1995	67.7	57.1	50.3	48.6	47.7
1996	65.3	52	55	56.5	48.3
1997	70	50	60	55.6	52.9
1998	54.7	63.6	56.1	55.2	51
1999	46.4	68.2	55.9	55.3	53
2000	50	56.3	44.8	53	51.1
2001	45	43.8	42.5	49.5	49.1
2002	36.2	53.3	43	37.4	36.7
2003	45.8	28	45.5	47.2	36.5
2004	28.9	31.9	40.5	50.9	44.6

Figure 5 Dropout percentage for four-year degree per year per quintile, 1990-2004



4.11 Conclusion

The analysis in this chapter set to answer two research questions in this study, namely: (1) what are the contours of disadvantage that can be discovered through investigating samples of students from disadvantaged schools at UKZN?; and (2) How do the 'contours' seem to co-occur with factors relating to academic progress? Interestingly, in this chapter clearest results came from measuring assets to assets (quintiles – matric), and assets to outcomes (quintiles and matric to GPA or length of registration) but not context to outcomes. Matric score compared to quintile was a stronger single predictor of GPA in all Faculties at UKZN, except for Engineering. Regarding GPA according to quintile, the quintile factor was a strong predictor of GPA. Thus, quintile influences matric scores, which in turn had an impact on GPA 2009 for all Faculties except for Humanities and Law (which had strong curriculum interventions in first year). Higher graduation rates were associated with the upper quintiles in both the three- and four-year programmes. Attrition rates were lower in the upper quintiles compared with the lower quintiles, which recorded relatively high attrition rates. Despite the trends exhibited in this study there were anomalies (see Engineering table 27b) where quintile 1 performed on par with upper quintiles, especially quintile 5. However, certain academic

performance patterns were consistent, such as the mean matric scores and mean GPAs. From my analysis, contours of disadvantage lay in lower matric scores (low asset base) for lower quintile students. Further useful research could be on what factors in a low quintile school could produce better matric results.

CHAPTER FIVE

SURVEY DATA OF STUDENTS FROM LOW QUINTILE SCHOOLS AT UKZN

5.1 Introduction

The previous chapter set the scene with a comparative analysis of the performance of students from low and upper quintile schools at UKZN. The larger database used in chapter 4 only contained variables from the University system of bio-variables such as race and gender, as well as the school (from which the variable quintiles was created); matric score and GPA for each year. A sample of these students who came from quintiles 1-3 was selected for the survey. After eliminating those with incomplete survey data, the sample size is 41. The purpose of the analysis in this chapter is to determine which variables would have an influence on low quintile students' studies. Forty one students from disadvantaged schools studying at UKZN were asked to complete a questionnaire about their progress in their studies at university. They were asked to answer questions on socio-economic and other variables that could have an influence on their studies. The research questions to be answered in this chapter are: (1) what are the contours of disadvantage that can be discovered through investigating samples of students from disadvantaged schools studying at UKZN? The summary of findings to this question is provided in section 5.2 below. (2) How do the 'contours' seem to co-occur with factors relating to academic progress? (3) What are the perceptions of students from disadvantaged schools at UKZN about their pre-university experience and the learning environment at university? The rest of the analysis in the subsequent sections and subsections pertain to the last two questions of this study. To proceed, I restate and highlight the theoretical approach of this study as it specifically relates to this chapter

5.2 The SLA-Social Capital-Social Justice Synthesis

The SLA and social capital approaches were used to interpret the findings of this study. As an analytical tool SLA is concerned with three fundamental aspects namely: livelihood assets, livelihood context and livelihood outcomes as described in chapter one of this study. Livelihoods, for the purpose of analysing data from the survey, means that the variables to be

considered come from both the students' life prior to university and from their experience at university (refer to table 1 in chapter one). Learning and academic progress do not take place in a vacuum, but within a social context. While pursuing their studies disadvantaged students are faced with stresses and shocks such as food insecurity, failure or dropout. Thus, disadvantaged students' livelihoods are only sustainable to the extent that they 'can cope with and recover from such shocks and stresses'; in this way they enhance their capacities and assets from the moment they enrol to the time they graduate and beyond that. The students suffer varying degrees of livelihood deficits, which the survey attempted to measure. For consistence in the application of the SLA-Social Capital-Social Justice framework, the procedure used is described in detail in chapter one, section 1.6.4, table 1 and subsection 1.6.1.5 which the reader should constantly refer to.

5.3 Comparison of Sample Survey with the main Database

The purpose of this section is to compare how this sample corresponds to the main database on the variables from the University system used in chapter four of this study.

5.3.1 Livelihood Assets at the University Stage

5.3.1.1 Quintiles

The survey sample focused on disadvantaged students (low quintile students) and this has higher percentage of students from quintile 1 compared to other quintiles. There were more students from quintile 1 (41.5%) and quintiles 2 and 3 had 29.3% each. Table 35 below provides an overview of these results. From the main database we gather that quintile distribution increased as one goes up the quintile categories. In other words there are more students from quintiles 4 and 5 than in quintiles 1 and 2 (see table 6 in chapter four). Further, the quintile factor had a significant impact on the academic progress of students. The survey sample picked students from quintiles 1 – 3 only as in the table below.

Table 35 Quintile

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	17	41.5	41.5	41.5
	2.00	12	29.3	29.3	70.7
	3.00	12	29.3	29.3	100.0
	Total	41	100.0	100.0	

5.3.1.2 Gender and GPA

About two thirds (68.3%) of the students in the sample were males (see table 36 below).

Table 36 Gender

Gender	Frequency	Percent
Male	28	68.3
Female	13	31.7
Total	41	100.0

The reasons for this vary, with the most significant being that females were particularly reluctant to disclose sensitive information such as academic records which contain GPAs. They felt that disclosing this information to a stranger could lead to it being used for dubious purposes other than research. Some could have been worried about their performance and therefore would not allow anyone access to their academic records. The other reason is that I, a male, administered the questionnaire myself and my research assistants were also male. This could have resulted in some mistrust. Some students actually lied about their student numbers and their questionnaires had to be discarded. The difference in the ratio of females

to males could also be attributed to the low number of females who come from low quintile schools. This could be compounded by the fact that low quintile students tend to come from big families of five and more. Given the resource constraints in their households, their families may prefer to send males rather than females to university.

This said, however the trend in most South African universities is that there are more females enrolled than males, although male students have always performed better than their female compatriots (see Cosser and du Toit, 2002). In 2007 men continued to dominate in science, engineering and technology where they constituted 57% of enrolments in 2007 while in all other fields of study, more women were enrolled than men (see CHE, 2009).

Contrary to the gender distribution noted in survey sample, the analysis in chapter four shows that there were more females (56.1%) than males (43.9) in the university system (see table 4 in chapter four). However, the most important factor should not be registration figures, but the graduation rates of female students taking into account their field of study.

5.3.1.2.1 Gender and GPA

In tables 36 and 37, GPA mean scores of gender groups are provided. Males scored slightly lower (mean= 50.98) than females (mean= 52.55) for 2008.

Table 37 2008 GPA versus gender

	Gender	N	Mean	Std. Deviation
GPA2008	Male	19	50.98	13.290
	Female	7	52.55	7.325

t = 0.293 with a p-value of 0.722.

For GPA 2009 males scored a mean of 52.45 while females achieved a mean of 50.19.

Table 38 2009 GPA versus gender

	Gender	N	Mean	Std. Deviation
GPA2009	Male	27	52.45	10.221
	Female	13	50.19	12.677

t = 0.604 with a p-value of 0.549.

However, the results indicate that there was no significant difference between males' and females' academic performance in terms of GPA for 2008 with a p-value of 0.722, and 2009 with a p-value of 0.549. Thus, gender did not matter as far as academic progress was concerned. Based on the findings of this study, UKZN can be lauded for levelling the field in terms of gender disparity. This finding also resonates with the analysis in chapter four where gender was found to have no significant impact on academic progress in terms of the mean GPA (refer to chapter four). From an SLA approach adopted in this study, gender is viewed as a livelihood asset; however it did not have an impact on livelihood outcome (GPA). Equally, compared with the analysis from the main database in chapter four (table 5b) it (gender) was not an influential variable on academic progress (outcome) of students at university.

5.3.1.3 Matric Scores and GPA

29.4% of low quintile students had matric scores of between 32 and 39 points; and 15% had matric scores of between 25 and 28 (see table 39 below). These matric scores are comparable with UKZN's current admission criteria. The minimum admission requirements at UKZN for the different colleges (the new college system effective from 2012) are (using a Swedish formula as described in section 1.7.5 Academic Progress):

College of Health Sciences = 30/38

College of Law and Management Studies = 28/36

College of Humanities:

- Mainstream = 24/36
- Extended Programme = 20/24

College of Agriculture, Engineering and Science:

- Mainstream = 28/40
- Foundation Programme = 16/20
- Augmented Programme = 22/28 (adapted from the University of KwaZulu-Natal Undergraduate Prospectus, 2012).

The mean matric score of 31.88 (table 40) of the 41 low quintile students in this analysis is also comparable with the minimum admission requirements indicated above. Thus interestingly, low quintile students in the survey sample are not all underperformers, despite their socio-economic status.

Table 39 Matric scores

Valid	Frequency	Valid Percent
0	2	4.9
24	1	2.4
25	3	7.3
27	2	4.9
28	3	7.3
30	2	4.9
31	2	4.9
32	4	9.8
33	2	4.9
34	2	4.9
35	4	9.8
36	2	4.9
37	2	4.9
38	1	2.4
39	4	9.8
40	2	4.9
41	1	2.4
42	1	2.4
43	1	2.4
Total	41	100.0

Table 40 below shows that the mean matric score of low quintile students was 31.88 against the mean GPAs for 2008 of 51.41 and 51.71 for 2009. The GPA is in line with the finding that low quintile students were just performing at the 'survival' level of just below and above 50 in terms of their mean GPA (refer to chapter four).

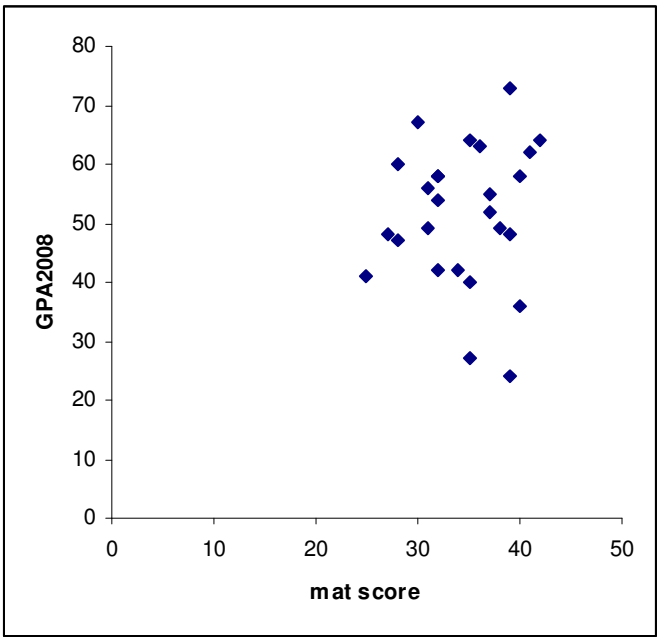
Table 40 Mean Matric Score and GPA of surveyed students

	Mean	Std. Deviation	N
Matric score	31.88	8.883	41
gpa2k8	51.41	11.856	26
gpa2k9	51.71	10.965	40

5.3.1.4 The Relationship between GPA and Matric Score for 2008 and 2009

A scatter plot was used to investigate the relationship between mean GPA and the matric score of low quintile students in the survey sample in 2008 and 2009. One of the principles used in interpreting scatter plots (diagrams) is that if the points cluster in a band running from lower to upper right there is positive correlation. For 2008, the points on figure 6 below cluster in a band, showing no linear pattern which indicates a no correlation between mean GPA and matric score with a p-value=0.757.

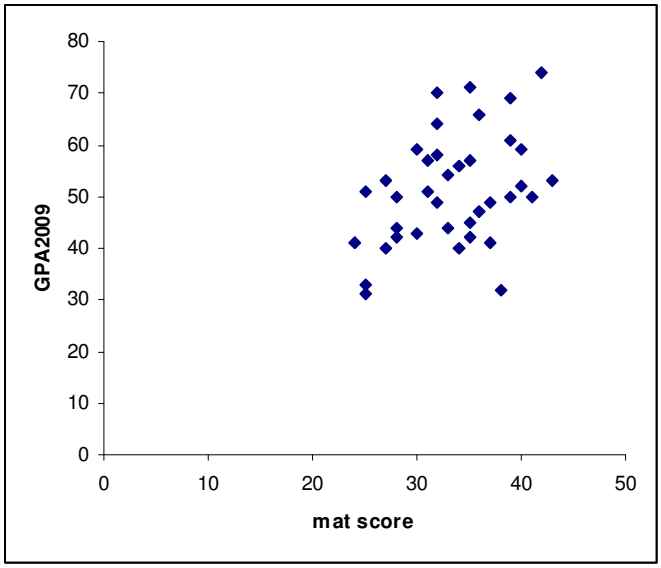
Figure 6 GPA *versus* matric score for 2008



r = 0.064 with a p-value of 0.757.

For 2009 the principle applied above in figure 6 was almost fulfilled, signifying only a weak correlation between GPA and matric score. Thus, there is weak positive linear correlation between matric score and GPA 2009 at a p-value of 0.012 (see figure 7 below).

Figure 7 GPA *versus* matric score for 2009



r = 0.402 with a p-value of 0.012.

The findings based on figure 7 resonate somewhat with the results in chapter four which showed that matric score was a strong predictor of mean GPA at university. Thus, from an SLA perspective, the livelihood asset of Matric score significantly impacted on academic progress (livelihood outcome) of students based on the main database in chapter four while it did not have such a positive influence based on the survey sample in this chapter (see figure 6). Variation in the results of both analyses (main database in chapter four and survey analysis in chapter five) could be accounted for by sample sizes and/or that livelihood assets played a minimal role in the academic progress of students based on GPA in some contexts, and not in others.

5.3.1.6 Year of Study Level Distribution

More than three quarters of the students have been studying for three years or less (see table 41). This study focused on undergraduate students mainly in three- and four-year degree programmes. The purpose of including all the undergraduate levels or categories stipulated above was to capture the perceptions and experiences of students at different levels of their studies. Students in five-year degree programmes or more such as medicine were also included and they constituted 7% of the sample. The distribution of the year of study is shown in table 41below.

There were more 'sophomores' (2nd year students) at almost 42%, and first years (22%) followed by 3rd and 4th years at 15% of the sample, respectively. The other (specify) category refers to medical students. Students at different levels of their studies will provide different perspectives on the problems faced by students from low quintile schools, thus helping capture their livelihood in context. Students' experiences and perceptions about their learning environment and academic progress are looked at in context, based on the fact that students go through a development trajectory as they pursue their studies (refer to chapter two).

The main database sample in chapter four included all undergraduate levels of study at university such as number of years taken to graduate or dropout. The survey sample, on the other hand, could only go as far as capturing and analysing experiences and perceptions during the period of their studies at university, and not dropout or years of registration. The latter begs for further or follow-up research on the sample.

Table 41 Number of years studying at tertiary institutions

Number of years	Frequency	Percent	Cumulative Percent
1 year	9	22.0	22.0
2 years	17	41.5	63.4
3 years	6	14.6	78.0
4 years	6	14.6	92.7
Other (specify)	3	7.3	100.0
Total	41	100.0	

5.3.1.7 Type of Degree

For frequencies in terms of degree programmes BSc, BEd, BCom and BSocSci dominate (see table 41 below). Table 42 shows that low quintile students pursue degree programmes almost across all Faculties of the university.

Table 42 Type of degree

Degree	Frequency
B Pharm	1
BA	1
BAdmin	2
BCom	6
BEd	8
BSc	12
BSocSci	5
ComDev	1
MbChB	4
Nursing	1
Total	41

Interestingly, most of the 41 low quintile students were enrolled in the sciences, which require mathematical and numeracy skills. The expectation would have been to find fewer of these students in the sciences because of their low school SES which has been associated

with low academic achievement, and more in the humanities. Although this researcher did his utmost to gather a sample that matches both quintile and faculty distributions, in the end it was possible only to work with the valid survey responses which show a faculty skew towards science students. As there are too few students in the sample it was not possible to do analysis comparing faculty averages. Thus rather than continuing to compare the survey sample with the analysis of the main database in chapter four this chapter now moves to analyse the results of the survey questionnaire to elucidate the relationship between assets, context and outcomes. Where GPA is used it will be the average across the survey sample and not faculty specific. Furthermore, a new variable was created based on the GPA: strugglers are defined as those scoring less than 50% on their GPA.

5.4 Livelihood Assets Associated with Social Capital and Human Capital and Academic Progress at University

5.4.1 Number of people dependent on household income

In 90% of the students' families four or more people depend on the household income (see table 43). Disadvantaged students came from big families with a very low income base to sustain them. 31.6% of students' families consisted of six family members, while 23.7% of households had seven family members. Most of the students lived with their grandparents, whose source of income is pensions and social grants. The larger the family size, the higher the likelihood that the resource base will be lower. International literature has shown that students from large families performed more badly at school than those from smaller families (see chapter two of this study). Black African families in South Africa are particularly poor, with a household income of R1600 or less per month in certain cases (refer to chapter two). One of the reasons for this is that these are single families where a father or mother was absent, dead or non-resident and did not support their children left in the custody of their grandparents.

Table 43 Number of dependents on income

Number	Frequency	Percent	Cumulative Percent
2	2	5.3	5.3
3	2	5.3	10.6
4	7	18.4	29.0
5	6	15.8	44.8
6	12	31.6	76.4
7	9	23.7	100.0
Total	38	100.0	

What is noteworthy in the table above is that many students come from big families, and this show why this is important for NSFAS to ask a question about the numbers of dependents.

5.4.2 First Generation to Study beyond Matric

Just over half of the respondents (55%) are the first generation to study beyond matric (see table 44 below).

Table 44 First generation to study beyond matric

1st generation	Frequency	Percent
Yes	22	55
No	18	45
Total	40	100.0

By definition first-generation students are those who do not have at least one parent who earned a bachelor's or higher degree (see chapter two for a further explanation of this phenomenon). Research has shown that first-generation students face unique problems at university, which in turn impact on their academic progress. Thus, to be first generation is a disadvantage. This has implications for higher education policy and emphasises the need for university programmes that create social capital through economic, academic, social and student support services. By implication low quintile, first-generation students have fewer assets to offset the shocks and stresses that they face at university. This is due to their low school, family and community socio-economic status (SES) which in turn affects their academic performance at university. There is less social, human, financial and physical capital to make their livelihoods sustainable at university.

5.4.2.1 First Generation and University Participation

There was a significant difference between the income levels of participants who were first-generation students and those who were not. The latter came from higher income households. Table 45 provides an overview of these results. The literature attests to the fact that students from low SES backgrounds have lower university participation rates than those from higher SES backgrounds locally and internationally (refer to chapter two).

Table 45 Comparison of Median income and number of earners per household between households where the participant was the first generation to go to university and those where the participant was not

First Generation to Study beyond Matric	Combined H/hold Family Income after Tax	No of Regular Income Earners
Yes	1200.00	1.00
No	2250.00	2.00
Total	1500.00	1.00
Mann-Whitney p value	0.021	0.033

5.4.3 GPA and Parental Education Level

There was no significant difference between the mean GPAs for 2008 for the students whose father has primary school education and those whose father has high school education with a p-value of 0.526 (see table 46).

Table 46 2008 GPA *versus* father's education

	Feduc	N	Mean	Std. Deviation
GPA2008	primary school or lower	21	50.98	13.089
	high school or higher	5	53.17	4.122

t = 0.644 with a p-value of 0.526.

However, for 2009 there is weak evidence to suggest that the mean GPA for the "primary school or lower" category is higher than that for the "high school or higher" category (p-value of 0.060) mean GPA *versus* father's education (refer to table 47 below). This is counter-intuitive argument which begs further researcher.

Table 47 2009 GPA *versus* father's education

	Feduc	N	Mean	Std. Deviation
GPA2009	primary school or lower	29	53.71	11.356
	high school or higher	11	46.44	8.104

t = 1.937 with a p-value of 0.060.

There was also no significant difference between the mean GPAs for 2008 (p-value of 0.640) and 2009 (p-value of 0.303) for the students whose mother has primary school education and

those whose mother has high school education. These results are provided in tables 48 and 49 below.

Table 48 2008 GPA *versus* mother's education

	Meduc	N	Mean	Std. Deviation
GPA2008	primary school or lower	13	50.29	12.101
	high school or higher	13	52.52	11.986

t = 0.473 with a p-value of 0.640.

Table 49 2009 GPA *versus* mother's education

	meduc1	N	Mean	Std. Deviation
GPA2009	primary school or lower	18	53.72	10.569
	high school or higher	22	50.08	11.253

t = 1.045 with a p-value of 0.303.

The results for 2008 are not supported by most of the literature reviewed in this study on the relationship between GPA and parents' education. This relationship for 2009, though not strong, resonates with most of the international literature surveyed in this study (see 2.2.2.1 Educational Level of Caregivers and Parents, mostly North American and overseas literature). From a social capital perspective, human capital (in this case a father's education or parent's level of education) provides possibilities for creating a supportive learning environment at home and is indexed by parental education (see chapter two). Table 52 below illustrates that of the 41 respondents only two lived with a father and one with a mother. Most of the low quintile students lived with their grandparents, which suggests less adult-child interactions regarding children's education.

Parental education is an indication that parents will get involved in their children's education by participating in school activities and helping their children with their homework; this impacts on children's academic achievements. Moreover, parental levels of expectations may have as much influence on the child's persistence in college as the child's own expectations of him/herself (see chapter two).

In this study, parents of students from low quintile schools could only provide limited social capital at the economic and academic spheres. They do not have any influence except on 'mundane' things associated with nature's order (basic needs provision – lowest in the Maslowian thesis). Thus, parental education has no influence on students' academic results.

5.4.4 GPA and Older Relative that lived with Participants when they were Teenagers

The mean GPA of those who lived with two or less older relatives was slightly higher than that of those who lived with three or more relatives for 2008, pegged at 51.02 and 52.14, respectively (see table 50).

Table 50 2008 GPA *versus* older relative living with family

	oldeduc	N	Mean	Std. Deviation
GPA2008	2 or less	17	51.02	12.673
	3 or more	9	52.14	10.822

t = 0.224 with a p-value of 0.825.

For 2009, it stands at 51. 21 for two or less older relatives and 53.05 for three or more older relatives who lived with the participants while they were teenagers (see 51 below). However,

there were no significant differences for both 2008 (p-value of 0.825) and 2009 (p-value of 0.642).

Table 51 2009 GPA *versus* older relative living with family

	oldeduc	N	Mean	Std. Deviation
GPA2009	2 or less	29	51.21	11.533
	3 or more	11	53.05	9.683

t = 0.469 with a p-value of 0.642.

The expectation is that older relatives should act as role models for the participants and aid them in their cognitive and intellectual development. Studies have also confirmed that poverty is a more dominant phenomenon in single parent families than in families where both parents are present, particularly for never married single parents (see chapter two). Low income and poverty in single parent families lead to increased health problems and the inability to provide educational materials or resources for their children.

Almost three-quarters (73%) of the participants lived with their grandparents (grandfathers and grandmothers) as indicated in table 52 below. From an SLA-social capital perspective, this means that students from low quintile schools have a low capital base, with most of their fathers having completed only primary school.

Table 52 Older Relative that lived with Participants when they were Teenagers

		Frequency	Valid Percent
Valid	grandfather	16	39.0
	grandmother	14	34.1
	Father	2	4.9
	Mother	1	2.4
	step parent	4	9.8
	Aunt	2	4.9
	Uncle	2	4.9
	Total	41	100.0

5.4.5 GPA and Tertiary Qualification of the Participants' Relatives

There was no significant difference between the mean GPAs for 2008 (p-value of 0.455) and 2009 (p-value of 0.589) for the students where no relatives had NQF4 or higher and those where one or more relatives had NQF4 or higher. Tables 53 and 54 below provide an overview of these results.

Table 53 2008 GPA *versus* relative with the highest qualifications above NQF4

	Reduc	N	Mean	Std. Deviation
GPA2008	None	13	53.19	13.010
	1 or more	13	49.63	10.802

t = 0.759 with a p-value of 0.455.

Table 54 2009 GPA *versus* relative with the highest qualifications above NQF4

	Reduc	N	Mean	Std. Deviation
GPA2009	None	18	52.77	11.088
	1 or more	22	50.85	11.047

t = 0.545 with a p-value of 0.589.

While these results point to evidence that there was no significant difference between GPA and high educational (NQF4 or higher) achievements, international research shows that the educational attainment of caregivers was a predictor of academic progress of students (refer to GPA and Parental Education above, and see 2.2.2.1 in chapter two).

5.4.6 Biological Parents' Education and Academic Progress

In this section we begin to use the variable strugglers and non-strugglers so that chi-square measures can be used. This study reveals that there is no association (based on the chi square analysis) between father's education and struggling at university in 2008 (p-value of 0.759) and 2009 (p-value of 0.583). An overview of these results is provided in tables 55 and 56 below.

Table 55 Father's education *versus* strugglers for 2008

		Feduc		
		primary school or lower	high school or higher	Total
struggle	No	11	3	14
	Yes	10	2	12
Total		21	5	26

Chi-square = 0.094 with a p-value of 0.759.

Table 56 Father's education *versus* strugglers for 2009

		Feduc		
		primary school or lower	high school or higher	Total
struggle	No	16	5	21
	Yes	13	6	19
Total		29	11	40

Chi-square = 0.302 with a p-value of 0.583.

A similar analysis of the association between mother's education (meduc) and students who are struggling at university is obtained for 2008 (p-value of 0.431) and 2009 (p-value of 0.324) (see tables 57 and 58 for an overview of these results). However, mean GPA for those who did not have a relative with a higher qualification was higher than those with one or more.

Table 57 Mother's education *versus* strugglers for 2008

		Meduc		
		primary school or lower	high school or higher	Total
struggle	No	6	8	14
	Yes	7	5	12
Total		13	13	26

Chi-square = 0.619 with a p-value of 0.431.

Table 58 Mother's education *versus* strugglers for 2009

		Meduc		
		primary school or lower	high school or higher	Total
struggle	No	11	10	21
	Yes	7	12	19
Total		18	22	40

Chi-square = 0.973 with a p-value of 0.324.

These findings contradict most of the international literature which demonstrates that there is significant association between academic success or progress and a father's presence

(particularly the father's educational level). Indeed, some studies maintain that the father's education is significantly associated with odds of attending university (see chapter two).

As noted above, most of the low quintile students in this sample did not stay with their biological parents, but with their grandparents. This rendered them vulnerable to shocks and stresses such as failure and taking longer to graduate. Thus, low quintile student's livelihoods are context specific and can only be captured in particular contexts, which will further explain the impact and the outcome of these contexts.

5.4.7 Academic Socialisation: Influence of Adults on Academic Progress of Children

The analysis in this section relates to the influence exerted by older relatives (oldeduc) (that stayed with the students during their teenage life) and strugglers (students performing below a mean GPA of 49) in 2008 and 2009. This analysis indicates that there was no association between the older relative who stayed with the student during his/her teenage life and mean GPA in 2008 with a p-value of 0.899, as well as mean GPA in 2009 with a p-value of 0.385. An overview of these results is provided in tables 59 and 60 below.

Table 59 Living with older relative (oldeduc) v*ersus* strugglers for 2008

		Oldeduc		Total
		2 or less	3 or more	
Struggle	No	9	5	14
	Yes	8	4	12
Total		17	9	26

Chi-square = 0.016 with a p-value of 0.899.

Table 60 Living with older relative (oldeduc) *versus* strugglers for 2009

		Oldeduc		Total
		2 or less	3 or more	
Struggle	No	14	7	21
	Yes	15	4	19
Total		29	11	40

Chi-square = 0.755 with a p-value of 0.385.

A similar trend is evident in the analysis of the association between relatives with the highest qualification above NQF4 (reduc) and strugglers for 2008 and 2009 in section 5.4.8 (see tables 61 and 62 for an overview of these results).

Contrary to the above analysis, a number of studies have attested to the role adults play in the academic achievement of children. This literature draws on learning theories that highlight two salient aspects of adult-child interactions, namely: the cognitive and academic socialization of children. The former concerns itself with how adults (father, mother, guardian) influence the basic intellectual development of their children, while the latter focuses on adults or parents' influence on the development of attitudes and motives that are important for school learning (see Bempechat, 1992). A note of caution is appropriate here; this study focuses on students from low quintile schools who are living with low income adults. This said, whilst low income and less educated parents may indeed care about their children's academic achievement, most of them are ignorant about how to help their children.

With a larger sample, the focus should be on the analysis of the influence of adult-child interactions and educational attainment at school or post-school level. However, in this study most of the adults that stayed with students from low quintile schools were relatively poor. From an SLA perspective academic socialisation constitute assets in terms of human capital which impact on the academic progress of students.

5.4.8 Relatives with highest qualification above NQF4 (reduc) *versus* strugglers

There was no association between relatives with the highest educational qualification (above NQF4) and strugglers for 2008 (p-value=0.431) and 2009 (p-value=0.726.). These results are presented in tables 61 and 62 below.

Table 61 Relatives with highest qualification above NQF4 (reduc) *versus* strugglers for 2008

		Reduc		Total
		None	1 or more	
struggle	No	8	6	14
	Yes	5	7	12
Total		13	13	26

Chi-square = 0.619 with a p-value of 0.431.

Table 62 Relatives with highest qualification above NQF4 (reduc) *versus* strugglers for 2009

		Reduc		Total
		None	1 or more	
struggle	No	10	11	21
	Yes	8	11	19
Total		18	22	40

Chi-square = 0.123 with a p-value of 0.726.

The preceding tables show that the majority of strugglers lived with relatives without a senior qualification. Relatives with lower academic qualifications will not have significant influence

on struggling students, or non-struggling students for that matter, in terms of their academic progress as represented by mean GPA. The implication is that, from an SLA perspective, the context of a students from low quintile schools is that of a low asset base in terms of social capital (low educational attainment of relatives, and by inference lack of other assets such as financial and physical capital). Thus, low quintile students who are strugglers are not shielded from shocks and stresses because of their background.

5.5 Livelihoods Assets Associated with Financial Capital and Academic Progress at the University Stage

5.5.1 The Association between Financial Aid and Academic Progress (GPA)

This analysis revealed that there is no significant difference between the mean GPAs for 2008 for students that received financial aid (mean GPA 49.75) and those who did not (mean GPA= 52.73) with a p-value of 0.604. There was also no significant difference between the mean GPAs for 2009 for the students that received financial aid (mean GPA= 51.82) and those who did not (mean GPA= 49.72) (p-value of 0.601). Tables 63 and 64 below provide a summary of these results.

Table 63 2008 GPA *versus* financial aid

	Receiving Financial Aid	N	Mean	Std. Deviation
GPA2008	Yes	18	49.75	12.724
	No	6	52.73	9.208

t = 0.526 with a p-value of 0.604.

Table 64 2009 GPA *versus* financial aid

	Receiving Financial Aid	N	Mean	Std. Deviation
GPA2009	Yes	27	51.82	10.437
	No	11	49.72	12.718

t = 0.528 with a p-value of 0.601.

These results mean that the playing field has been levelled by the provision of financial aid to disadvantaged students at university. Thus, NSFAS has produced a positive livelihood outcome, namely, that all students, including low quintile students can access higher education. Resources and livelihoods are interlinked, and this relationship determines the type and direction of the outcome (see chapter one). Financial aid is a key resource (as financial capital from the SLA perspective) to sustain student livelihoods (access to residence, food, books, relationships) at university.

Local and international studies on higher education support these findings (see chapter two). According to some this literature financial rewards do not improve the achievement of low ability students with a low SES. Explanatory variables include the fact that academic performance could not be attributed to a single factor. For instance, factors such the locus of control of individual students and the time and effort (or lack of it) they expend on their studies, as well as institutional characteristics, contribute to academic progress.

However, it is surprising that such a proportion of students coming from impoverished backgrounds (students from low quintile schools) were not receiving financial aid (refer to tables 63 and 64 above).

5.5.2 Academic Progress versus Students Ran out of Money during Examination Time

The results for this section show that there was no significant difference between GPAs for 2009 for the students who ran out of money (51.84) and those who did not run out of money

(54.46) during the examination period with a p-value of 0.666. Table 65 below provides an overview of these results.

Table 65 2009 GPA *versus* ran out of money during exams

	Run out of Money during Exams	N	Mean	Std. Deviation
GPA2009	Yes	33	51.84	11.705
	No	4	54.46	6.399

t = 0.436 with a p-value of 0.666.

Thus, there was no association between running out of money during examinations and academic progress as expressed by mean GPA. The implication is that even if the university were to intervene by providing money for food during this period, this would not have an impact on the academic progress of students.

However, these results do not resonate with the findings of the existing literature (see Jones et al,, 2009). The literature survey attests to the fact that some students go hungry during examination time in higher education institutions in South Africa. Student poverty was said to be particularly prevalent during the crucial period of examinations (see Jones et al,, 2009 cited in chapter two). The fullest loan from NSFAS does not cover accommodation and food, or sundries such as toiletries and transport costs (see also chapter six).

From the above table it can be seen that the majority run out of money during examinations. From an SLA perspective, intervention would focus on the asset portfolio of each low quintile student. Students are vulnerable to shocks such as food insecurity while pursuing their studies at university which could lead to them failing courses, dropping out or taking longer to graduate. This has serious implications for NSFAS (overstretching its budget) and for accumulated student debt and deprives other potential recipients of access to education.

5.6 Livelihood Context Associated with Social and Human Capital at the University Stage

5.6.1 Friendship

5.6.1.1 Socializing on/off campus

The analysis showed that there was no significant difference between the mean GPAs for 2008 and 2009 for students who socialized on and off campus, with p-value=0.969 for 2008 and p-value=0.985 for 2009. Tables 66 and 67 provide an overview of these results.

Table 66 2008 GPA *versus* socializing on/off campus

	Socialize with Friends within Univ/Off-Campus	N	Mean	Std. Deviation
GPA2008	on campus	19	51.83	13.024
	off campus	5	51.58	9.515

t = 0.040 with a p-value of 0.969.

Table 67 2009 GPA *versus* socializing on/off campus

	Socialize with Friends within Univ/Off-Campus	N	Mean	Std. Deviation
GPA2009	on campus	30	51.67	11.286
	off campus	8	51.59	11.757

t = 0.019 with a p-value of 0.985.

On the other hand, the frequency distribution of where students socialized (on/off campus) revealed that just under 80% of the low quintile students socialize on campus (see table 68 below).

Table 68 Socializing with friends on/off campus

on/off campus		Frequency	Percent
	on campus	31	79.5
	off campus	8	20.5
	Total	39	100.0
Total		41	100.0

Disadvantaged students' main activities were confined within the campuses in the residences. There are a number of explanations for this phenomenon. Most of these students stayed in campus residence accommodation. They were far from home. They had limited resources for social excursions outside of the university or campus where they were resident. However, some of the socializing took place between campuses where transport is provided like the Westville and Howard College campuses and also residences on the outskirts of these campuses. Furthermore, making good friends was noted as the most single important factor for first-year students' academic success. This is not the ordinary type of friendship, but a unique one with an academic tag which enhances the academic progress of low quintile students. Student life for low quintile students revolved around creating social capital at different spheres. Socializing with friends created social capital at the academic and social levels. Thus, these two spheres encapsulate both social and academic integration, which are essential ingredients for student success at university (refer also to chapter two).

5.6.1.2 Discuss Academic Performance with Friends

More than 90% of the respondents discuss academic performance sometimes or often with friends. These results are shown in table 69 below.

Table 69 Discuss academic performance with friends

Reply	Frequency	Percent
Always	15	36.6
Mostly	10	24.4
sometimes	12	29.3
occasionally	3	7.3
Never	1	2.4
Total	41	100.0

The notion of friendship at university level is akin to peer or social learning. Thus, low quintile students (disadvantaged) have founded social learning on friendship, which is more readily utilizable for academic purposes. Low quintile students perceive friendship as a source of social and academic integration and concomitant intellectual development. It is a resource operating at the social sphere that produces outcomes at the academic sphere. The implication is that educational processes and practices in higher education institutions should consider bringing social learning or peer learning on board for the benefit of low quintile students and other, mainstream students who could also benefit.

5.6.1.3 Friendship as Social Capital

The results in tables 70 and 71show that there is no difference between the GPA means at the different "friends influence" levels for both 2008 (with a p-value=0.710) and 2009 (p-value=0.955). The implication is that friendship was not a telling factor as far as GPA is concerned for the years under review.

Table 70 2008 GPA *versus* friends influence

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	103.166[a]	2	51.583	.348	.710
Intercept	63466.373	1	63466.373	427.986	.000
FGionY	103.166	2	51.583	.348	.710
Error	3410.691	23	148.291		
Total	72220.237	26			
Corrected Total	3513.856	25			

Table 71 2009 GPA *versus* friends influence

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	11.596[a]	2	5.798	.046	.955
Intercept	99583.746	1	99583.746	787.719	.000
FGionY	11.596	2	5.798	.046	.955
Error	4677.552	37	126.420		
Total	111665.763	40			
Corrected Total	4689.148	39			

However, it has been shown that friendship at university plays a multifaceted role (see chapter two). It encapsulates the creation and realization thereof at the social, economic, academic, support and democratic spheres (see chapter one). At the social sphere it facilitates

social integration within the university system. At the academic sphere, it coordinates academic integration and concomitant intellectual development as it encourages social learning through peer groups and tutorials. At the economic sphere, students share material goods, including accommodation if there is a need.

5.6.1.4 Friendship for Academic Purposes: Social capital Operationalised

This analysis is linked to the analysis of the learning environment variables below where students were asked to list sources of help they received. Table 72 below shows that social networks in the form of friends as sources of help accounted for 53.68% (n=22 of the 41 low quintile students) of participants in this study.

Table 72 Sources of Help (from open section of questionnaire)

		Count
If Yes to items a-f Give Source of Help Parent	yes	4
If Yes to items a-f Give Source of Help Siblings	yes	4
If Yes to items a-f Give Source of Help Friends	yes	22
If Yes to items a-f Give Source of Help Staff (lecturers etc)	yes	4
If Yes to items a-f Give Source of Help Other (specify)	yes	3

This is not just friendship but a special type of friendship for academic purposes. Thus, friendship has been the main source of social capital amongst students when faced with difficulties associated with the learning environment variables at issue. This finding resonates with evidence from the higher education literature that university residences are homes away from home.

Friendship constitutes human capital which imbues the social learning of low quintile students. Students often do not have much choice on curriculum; however they have choices on how to choose their friends which enhances learning opportunities to improve academic performance. This said, the suitability of the SLA approach lies in its ability to capture the choices students make in an attempt to achieve sustainable livelihoods as they pursue their studies at university.

5.7 Livelihood Context Associated With Physical Assets at University

5.7.1 Academic Progress and Student Residence Accommodation at University

As indicated in tables 73 and 74, there was no significant difference between mean GPAs for 2008 (p-value of 0.271) and 2009 (p-value of 0.219) for the students who stayed in on- and off-campus residences. Thus, there was no association between residence accommodation and academic progress at university, whether or not one stayed on or off campus.

Table 73 2008 GPA *versus* type of accommodation (typacoml)

	typacoml	N	Mean	Std. Deviation
GPA2008	off campus	11	54.45	12.912
	on campus	15	49.18	10.923

t = 1.126 with a p-value of 0.271.

Table 74 2009 GPA *versus* type of accommodation (typacoml)

	typacoml	N	Mean	Std. Deviation
GPA2009	off campus	21	53.76	12.276
	on campus	19	49.45	9.097

t = 1.251 with a p-value of 0.219.

The startling implication is that there is no need to build more residences on the campuses. Institutional intervention efforts should rather be channelled to other sectors of the institution that will enhance students' academic performance. However, the association between residence accommodation and academic progress has been observed by other researchers. The international literature argues that students staying on campus are more likely to persist and graduate than students who commute (see chapter two, 2.6.1 Residence Accommodation; Ndzimande, 2012). Further, at UKZN, student opinion surveys have noted that accommodation was one of the services that needed improvement. By the same token an association between academic progress and type of residence accommodation is inferred (refer also to chapter six). Different results should not imply contradictions, but contexts which statistical analyses need to grapple with.

A final note on the analysis of residence accommodation is that it exhibits multiple contexts: a home away from home for students; a place for socializing with friends; a place of study; a place of rest after a long day of academic activities. All these constituent factors reflect the different assets embedded in residence accommodation that provides a conducive environment for study for low quintile students.

The results above are against this researcher's expectations. Frankly, it was expected that the survey findings would provide evidence to strengthen arguments for universities to build more on-campus residences and to cease using poor quality rented premises off campus. The counter intuitive results in tables 73 and 74 will be discussed again in chapter six.

5.7.1.1 Perceptions about Residence among the Survey Respondents

Perceptions about residences differed in terms of their location relative to their proximity to the university campuses, whether they were private, on-campus, or off-campus residences, shared or single rooms, and the attributes of roommates. All things considered, from the preceding factors, two categories emerged: a group of students who 'rated' the residence as in good condition and those who categorised the residence as not in good condition.

A residence was characterised as good when there was less noise; enough study materials; proximity to facilities e.g. libraries and LANS; was an on-campus residence; roommates are pleasant and committed to their studies; proper sanitation; abundant resources; environment is safe and comfortable; modicum of privacy; proximity to shops (student livelihoods – assets while at university); cleanliness; and residence close to the university.

Conversely, the residence is not good when it is privately owned accommodation. There are a number of explanations for this. It could be that residence fees are exorbitant, or simply because it does not have enough facilities for academic purposes. A residence is not good because it is crowded; noisy (associated with off-campus residences); dangerous and not safe (incident of a student killed in one of the off-campus private residences in recent years); its remote location in town away from the university campus; the environment is considered not to be good; limited study in library during the day; walking to campus at night; not enough space to study. The effect associated with the location of a residence was that it either facilitated or thwarted easy access to resources. For instance, a residence located in town prevented or limited students from accessing resources any time they wanted to. This was also cumbersome in the sense that a student would want to rest during certain times, maybe during the day and prefer to study at night. At 12 or 1am there are no buses, so one has to wait until the next day. While these perceptions make sense, they also have to be seen against the backdrop of the empirical evidence in this study which showed that the mean GPA for 2008 and 2009 was higher for those who travelled by bus than those who walked to and from university (see tables 75 and 76 below).

Some residences were far from shops. The other experience associated with the residence not being a good one is that of spending more time cooking. Off campus residences are far from resources, raising the issue of isolation which Chambers (1987) identified as a deprivation

trap related to poverty. Isolation is related to student poverty. Students who stay in off-campus residences not located within walking distance of the university suffer a double conundrum of having to incur extra 'expenses' or an overstretched budget which is not sustainable for the academic progress of the students involved.

Most on-campus residences are up-to-scratch in terms of general human habitation and materially well-furnished. The complaints concerning some off-campus university residences revolve around their remoteness, which limit access to resources. Some residences are located in 'notorious' spots in town for example, Mahatma Ghandi and Russell Streets in Durban.

When SLA is applied, residence accommodation at university is associated with a host of factors that can be either assets or resources which sustain student livelihoods – the way of life of low quintile students at university. When residence accommodation is deemed to be good, student livelihoods are sustainable because there are readily available resources and assets and they are accessible to the students. These assets and resources include both physical (good residences themselves; LANs and Internet access) and human or social capital (roommates who are pleasant; and peer learning) to mention a few. All these assets provide a buffer to shocks and stresses, and students can concentrate on their studies without being disturbed.

On the other hand, when residences are not good they expose students to shocks and stresses which tend to distract them from their main activity at university which is to study and progress towards graduation. The relationship between mean GPA and residence accommodation showed that those who lived in off-campus residences scored higher than those who lived in on-campus residence (see tables 73 and 74 above).

5.7.2 Academic Progress and Students' Means of Transport to University

There is no significant difference between the mean GPAs for 2008 (p-value of 0.632) and 2009 (p-value of 0.344) for students who walked and those who took a bus to campus. These results are shown in tables 75 and 76 below. Thus, neither travelling nor walking to university had an impact on the mean GPA of low quintile students. The implication is that

institutional efforts to help students from low quintile schools should focus on factors that have been found to have an impact on their academic performance.

Table 75 2008 GPA *versus* mode of transport

	Mode of Transport to University	N	Mean	Std. Deviation
GPA2008	Walk	6	50.66	13.018
	Bus	8	53.96	12.091

t = 0.491 with a p-value of 0.632.

Table 76 2009 GPA *versus* mode of transport

	Mode of Transport to University	N	Mean	Std. Deviation
GPA2009	Walk	11	51.52	10.025
	Bus	15	55.50	10.621

t = 0.966 with a p-value of 0.344.

The fact that students who were taking the bus had higher mean academic performance need some explanation. Depending on the distance travelled to university, students who commute to university will have to consider the time they wake up to attend lectures. Commuting to and from university incurs a disadvantage in terms of the time a student will spend in lectures, studying in the library or at the LAN and group study and other activities. A student who stays on campus or nearby off campus will have fewer problems than those who commute. Tentatively the only explanation to this high scoring by students who travel by bus is that they are super organised.

5.8 Livelihood Context Associated with Perceptions of Students at University about their Learning Environment

Learning environment is what the university provides in terms of curriculum, staff and learning resources. The survey taped into student perceptions of these and was able to compare these with GPA.

The following variables which are related to the learning environment at university were analysed based on the level to which disadvantaged students: feel overwhelmed by one's own ignorance ; lacked background knowledge of subject (LBKS); feelings of inadequacy; doubts about one's own intellectual capacity; little help from staff on how to study; feel unable to approach staff ; find it difficult to understand what staff require of students; have no idea on how to tackle a long essay; are unable to use the library effectively; are overwhelmed by amount of reading and the complexity of reading material; have difficulty understanding the requirements lecturers use in grading your academic work; and inadequate feedback from staff, all in relation to the mean GPA. The analysis yielded two trends.

First, I did not find any significant relationship between most of these variables and mean GPA, and were therefore discarded from the report.

Second, in contrast, the mean GPA for 2008 for those who lack background knowledge (LBKS) sometimes or less is significantly greater than for those who lack background knowledge always or mostly (p-value= 0.013); whereas, there is weak evidence to suggest that the mean GPA for 2009 for those who lack background knowledge sometimes or less is significantly greater than for those who lack background knowledge always or mostly (p-value= 0.074). An overview of these results is provided in tables 77 and 78. Lack of background knowledge of a subject relates to the context that students from low quintile schools come from in terms of their schooling. The backgrounds of low quintile students follow them to university. Thus, background as represented by low quintile is associated with academic progress. From an SLA-social capital perspective, students from low quintile schools lacked human/social capital at the student support (career guidance) sphere. A similar theme is noted in chapter six where students from low quintile schools reasoned that students

from upper quintile schools had background knowledge about certain subjects which made their studies easier.

A closer look at the frequency distributions of the learning environment variables revealed that most of the low quintile students experienced all of these learning environment variables 'mostly' and 'sometimes', an indication that they co-occur with academic progress.

Since the ensuing analysis pertains to student perceptions it is useful to articulate this through Thayer-Bacon's (1993) constructive thinking model, which is explicated as the creation of knowledge as 'transactive socio-political process with others'. This underlines her epistemological lenses, that of 'relational epistemology', which emphasizes caring as an element of critical and constructive thinking. The concept of learning environment emphasizes caring, collaboration, deep learning, reflection, and engagement as elements of critical and constructive thinking (see chapter two). The international literature attests to the fact that staff-student interactions and other institutional characteristics had an impact on academic achievement.

Table 77 2008 GPA *versus* lack of background knowledge of subject (LBKS)

	LBKS	N	Mean	Std. Deviation
GPA2008	always/mostly	11	44.90	11.893
	sometimes or less	15	56.17	9.611

t = 2.673 with a p-value of 0.013.

Table 78 2009 GPA *versus* lack of background knowledge of subject (LBKS)

	LBKS	N	Mean	Std. Deviation
GPA2009	always/mostly	15	47.84	9.439
	sometimes or less	24	54.34	11.470

t = 1.839 with a p-value of 0.074.

5.9 Livelihood Outcomes

In the survey, I had three questions on outcomes: one related to academic progress, and the other two concerned the province to work in and community participation. Bear in mind that in the survey these are based on students' self-reports not on verifiable data. However, when I did the survey I was able to provide verifiable data.

5.9.1 The Relationship between Failing a Course and Academic Progress: University Stage

The question about failing courses was put into the survey because at that point I was not confident that the research will be able to use GPA. If there is a relationship between failing a course GPA it means the students were reporting correctly about their academic results.

There was a significant difference between those students who did not fail any course and those who failed one or more courses for 2008 with a p-value of 0.013 (see table 79). Those who did not fail any course had a mean GPA of 59.77, while those who had failed one or more courses recorded a lower mean GPA of 47.69 (see table 79 below).

Table 79 2008 GPA *versus* failed courses

	Fail	N	Mean	Std. Deviation
GPA2008	None	8	59.77	10.231
	1 or more	18	47.69	10.773

t = 2.677 with a p-value of 0.013.

For 2009, there is weak evidence to suggest that the mean GPA for the students that failed no courses (55.87) is significantly higher than that for the students that failed one or more courses (49.22) with a p-value of 0.062 (see table 80).

Table 80 2009 GPA *versus* failed courses

	Fail	N	Mean	Std. Deviation
GPA2009	None	15	55.87	13.413
	1 or more	25	49.22	8.552

t = 1.922 with a p-value of 0.062.

The significance levels indicate that students were reporting their academic progress honestly. Some studies have shown that black African students tend to over-estimate their abilities as far as their academic performance is concerned compared to their white counterparts (refer to section 2.9.1 Students' Own Perceptions of Academic Performance in chapter two). But the tables above show that survey sample students were not doing so.

Furthermore, failing a course is related to time-to-degree variables in that it gives an indication of whether or not a student will complete in the minimum time. From an SLA perspective, failing courses is an important indicator that exposes a student's vulnerability to shocks such as dropout or withdrawal.

5.9.2 Province to work in: Post-University Plan

77.5% of the respondents would prefer to work in KwaZulu-Natal (KZN). The frequency distribution of this trend is shown in table 81 below. The reason for this choice is that all the participants came from KZN schools mainly located in rural areas. KZN was their home, and they have vested interests in their province. They have identified needs in their communities and aim to contribute to their communities' development when they graduate. To enhance livelihoods in their different communities and families they had to receive an education. Academic progress for these students did not mean merely graduating after three, four or six years, but translating their acquired knowledge into productive use by uplifting their communities. Theories on student change at college buttress this assertion (see for instance Pascarella and Terenzini, 2005 in chapter two).

Table 81 Choice of province to work in

Province	Frequency	Percent
KwaZulu-Natal	31	77.5
Gauteng	4	10.0
Western Cape	2	5.0
Eastern Cape	1	2.5
Limpopo	1	2.5
Free State	1	2.5
Total	40	100.0

5.9.3 Community Participation/Community Development by Survey Students: During University

Students from disadvantaged schools participated in activities that were designed to facilitate community development such as career guidance, general counselling, motivational speaking, and HIV/AIDS awareness campaigns. Important and relevant to the current gamut of identified presenting issues in higher education and concomitant training is the notion of career guidance in its embedded forms. Based on the results of this study career guidance involved two components namely, tutoring grades 11 and 12 learners and youth development, which has also been identified as a niche area in both higher education and political and public policy discourses. For instance, the Minister of Higher Education and Training launched his career guidance campaign for disadvantaged students from disadvantaged (rural and/or township) schools on Mandela Day in 2011.

Pascarella and Terenzini (2005)'s notion of student change in college postulates that students grow towards maturity while at college. Given the right environment, they progress towards career maturity which depends on individuals making informed and age-appropriate career decisions. These career decisions possibly also form part of the motivation to graduate.

People who are intrigued by their careers are likely to pursue them to the end, and this could be the motivation for persistence until graduation. For low quintile students – who are first-generation students and also come from low income families with low educational attainment– this can happen if there social capital at the sphere of the student support services, which first and foremost includes career guidance, financial aid (which is provided but not always adequate for student livelihoods at university) and residence accommodation.

5.10 Conclusion

This chapter undertook to answer all the three key research questions to be answered in this study, restated thus: (1) what are the contours of disadvantage that can be discovered through investigating samples of students from disadvantaged schools studying at UKZN? The summary of findings to this question is provided in section 5.2 below. (2) How do the 'contours' seem to co-occur with factors relating to academic progress? (3) What are the perceptions of students from disadvantaged schools at UKZN about their pre-university experience and the learning environment at university? The study design is a mixed-methods approach. The findings from this analysis, with so many survey variables proving insignificant, were unexpected as they run contrary to the international literature. In some cases the sample analysis results differ even from the analysis of quintile results from the main database; for instance where Matric is a strong predictor of results in the main database but is either insignificant (for 2008) or weakly significant (for 2009) in the sample. In the sample data, only one of the variables from the student perceptions section turned out to be significant: lack of background knowledge was one of the difficulties that students from low quintile schools at university experienced and it was associated with students' academic progress. This is understandable as the students from low quintile schools do not come with the family knowledge base provided by more highly educated families.

The major, and surprising, finding from this analysis is that some students from low quintile schools are achieving in spite of their social disadvantage. A major implication therefore is that the university is able to eradicate the effects of social disadvantage experienced by the students. Despite coming from a livelihood context of bigger families with a low family income, including a low social and human capital base, they are progressing. Thus,

graduating is more important than high GPA for low quintile students and others in general. High GPA played a function of helping students to postgraduate studies or programmes. Thus, even if the low quintile students performed on average around 50% this meant that there was progression to graduation, an important livelihood outcome for them given their low livelihood asset base. A reason for their success revolved around factors such as motivation from parents and teachers, mentoring, academic friendship, and self-efficacy.

CHAPTER SIX

ACADEMIC PROGRESS, LIVED EXPERIENCE AND THE LEARNING ENVIRONMENT AT UNIVERSITY

6.1 Introduction

This study set out to answer three research questions, namely: (1) what are the contours of disadvantage that can be discovered through investigating samples of students from disadvantaged schools studying at UKZN? What are the perceptions of students from disadvantaged schools at UKZN about their pre-university experience and the learning environment at university? The approach in this study was a mixed methods research design which emphasised complementarity, development and triangulation. Thus, both quantitative and qualitative methods were used to collect and analyse data. The report on the findings of this chapter is presented in the form of theoretical narratives comprising major themes that delineate the contours of disadvantage and academic progress at UKZN as perceived by participants in the interviews in this study. These themes are presented as headings and subheadings below following the order in which questions were asked in the interviews. At the end of each theme I provide an analysis of the findings. Furthermore, disadvantaged students' needs and academic progress should be understood within a multiperspective framework that underscores the salience of social, historical, economic, material, political and other contexts. Since this study approached this multiperspective framework within a SLA-social capital-social justice synthetic theory, the results need to be given closer attention in the context of this framework.

6.1.2 SLA-Social Capital - Social Justice Synthesis Framework

This study has taken a multiperspective approach to explore and explain academic progress, the perceptions and the [lived] experiences of disadvantaged students and their learning environment at university. The SLA-Social Capital - Social Justice Framework helped us to focus on the context in which learning, and academic progress or lack of it, takes place, and how students from disadvantaged schools experience it. One of the major tenets of this framework is the notion of the livelihood context, which in the context of this study refers to

understanding the totality of students' surroundings (pre-university and university, refer to table 1 in chapter one). It was therefore important to holistically understand the context within which outcomes academic progress (livelihoods outcomes) or lack of it (failure, dropping out or withdrawal) operates. Linked to the livelihood context are livelihood assets. In this study, these assets or resources include physical capital (residences), social capital (peer learning, parental education, staff-student collaboration, friendship), and financial capital (bursaries, NSFAS, and loans) and human capital (information, knowledge and skills: quality of teachers and educational level of parents and society). The findings from this study suggest that the question is not so much on the availability of these resources but access to some of the resources (assets) for disadvantaged students. For example, disadvantaged students had difficulties accessing physical resources such as university accommodation and financial capital. While some of the pedagogical resources such as the Internet and LANS were available, access was a problem for those who stayed off campus. On the other hand, while financial capital such as NSFAS was available, disadvantaged students only had access to a meagre ration which posed potential threats in the form of shocks or vulnerabilities such as food insecurity during the examination period and a shortage of books (see section 2.5.2 Student Funding, University Attendance and Academic Progress; and also Jones et al., 2008). Furthermore, orientation on the academic sphere of social capital (induction subject matter or knowledge) to facilitate the transition of first year students into the academic system, which in turn could have enhanced/deepened learning for disadvantaged students, was non-existent.

Vulnerabilities and shocks were often mitigated by the presence of some form of social capital. When the NSFAS allowance did not cover all the students' expenses, some students resorted to squatting to cut costs. In the absence of student-staff collaboration which is important in facilitating learning and academic progress, disadvantaged students resorted to social learning (peer learning). Further, friendship was utilised as a livelihood strategy for academic purposes. On the economic front, friendship was also a source of generating money and food. It (the theoretical framework) helped me understand how disadvantaged students strive to make a living at university, their attempts to meet different consumption and material necessities, how they cope with uncertainties, their response to new opportunities and how they make a choice between value positions (livelihood strategies). For this reason, I call this framework the Student Livelihoods Model (SLM) which is related to the SLA, section 1.6.1 Sustainable Livelihoods Approach (SLA) Framework in chapter one. The notion

of disadvantage in higher education is a complex one, and contexts and assets have to be continually invoked when interpreting particular data or analyses.

At the very baseline of this multiperspective synthetic approach is how to elicit and capture the lived experience of disadvantaged students during pre-university and university. First, the approach allowed me to focus on the context of the participants surveyed. In this case, the context is that these students came from disadvantaged schools which are defined in terms of the poverty of their catchment communities. This also helped me understand their initial social conditions before they came to university. Students' perceptions about [educational] disadvantage and academic progress were not linear, however varied. For the research design and methodology refer to chapter 3. At the level of practice in higher education, the issue of who gains access to what assets or resources hinges on policies and institutions; and at pre-university parental education, features within the school system such as career guidance and motivation by teachers may be important. However, this study found that career guidance was in short supply for most disadvantaged students. It is only after documenting and analysing the learning needs of disadvantaged students that interventions based on the notion of social justice, especially [formal] fair equality of opportunity can be applied in order to improve the learning environment of disadvantaged students at university. This being the case, my reference point for the application of the SLA-social capital-social justice framework in this study is provided in table 1 in subsection 1.6.1.5, and section 1.6.4, which the reader should refer to constantly.

6.2 Livelihood Context: Pre-University Experience

The ensuing analysis is devoted to understanding the initial backgrounds and social conditions of the students who attend the low quintile schools.

6.2.1 Disadvantaged students

There is evidence that links school SES with academic achievement (see chapter two).This study found that students from disadvantaged schools come to university with low Matric [entry] points. Some gained entry to university through access programmes; and could not pursue the careers of their dreams. One of the participants (a final year commerce female

student), when asked by this researcher why she did not do pharmacy which was her initial choice, said that:

> "Ngashaywa ngama-points – translated "I was let down by the number of points amassed at Matric to meet entry requirements [for university admission]".

She started in an access programme because her Matric points for biology were not good enough for her to enter the mainstream and study pharmacy. The access programme determined her progression to a Bachelor of Commerce, with majors in marketing and supply chain management. This course was not supposed to be 'demanding' in terms of her aptitude or ability.

Students from low quintile schools are disadvantaged because of their socio-economic background, the low educational attainment of their parents, and the fact that they come from poor communities:

> "I had to wake up early and do other things and then attend lectures and staying at res (residence) for the first time living on my own and my own life, but, well, I adjusted; however my school background had adverse impact on me when I came here because the culture on your back that says, you know where you are coming from and then you have to do this but also remembering the family background how it looks like you know what to do here but well the structure of the university about the offices and the orientation could not help much. To tell the truth, the orientation did not help, it's just a waste of time."

Students from low quintile schools also criticised certain institutional arrangements within the university such as what one student called the structure of the university (offices and the orientation) which refers to student services (see chapter one on the role and importance of student services). Regarding this, one of the participants charged that:

> "Well about the structure, for instance, the structure of the university is that a student come and then do Economics 101 do this, do that, without having got much information about the module one is doing; you don't know on which part to concentrate (focus) on in the module… Certainly you need to know more information about that particular module you are going to do; it's the other thing knowing about the sport science that the orientation taught us; and it did not give us … enough on the academic stuff, like this is this, and how to do it."

The majority of the participants abandoned their initial degree of choice (a form of academic roaming) on two grounds: (1) all the spaces were already filled; (2) based on their aptitude or

academic performance. The explanation for this academic roaming is lack of career guidance at school.

Poor performance in Matric, a lack of good grades and/or insufficient points have resulted in the participants taking any course that is available to them. Making matters worse was the lack of academic integration in terms of orientation. The orientation that the university offers focuses exclusively on social integration as opposed to academic integration which is important in facilitating students' intellectual development. Academic orientation is thus the missing link in the bid to integrate disadvantaged students into the university. Academic orientation will give students direction in terms of the basic requirements for modules and other relevant academic issues. The university should design an orientation programme that communicates the pedagogical content knowledge which is important in improving student achievement. Further, it could be that some students over-estimated their abilities to pursue certain courses as extant literature point to the fact that some students have the propensity to do so (see section 2.9.1Students' Own Perceptions of Academic Performance, chapter two).

6.2.2 Low Quintile Students and Poor Communities

The communities (the catchment areas of the schools) of students from disadvantaged schools are mainly rural and poor with a large number of dependents (see below for participants' comments on this issue), notwithstanding the fact that some of them come from township schools that can also be categorised as disadvantaged or poor (refer to section 1.7.3 Deciles and Quintiles).

The other noteworthy fact is that disadvantaged students come from highly illiterate communities (see section 1.7.3 Deciles and Quintiles). Their take was that there were no educational role models for them to follow. In cases where there were educated individuals, they were the minority of the population in that particular community, and they were not visible. One of the participants (a 3rd year male student) alluded to the fact that:

> "In my community a majority of people are not educated and therefore there were no role models who were educated. They have only completed standard 10. There are very few [who] have gone as far as university."

Academic achievement has been linked to characteristics such as competent societies of learned communities and the zeal for education in the society. Children in communities tend

to emulate those that they interact with on a daily basis. Communities of disadvantaged students have high functional illiteracy, and therefore do not provide role models to draw inspiration from, pointing to a deficit in human and social capital (refer also to table 1, section 1.6.1.5 summary of the application of the SLA).

6.2.3 Disadvantaged Schools and Academic Progress

The participants constantly referred to the schools which they attended and their backgrounds as disadvantaged and poor. They are mainly located in rural areas. The conditions at the schools where some of participants studied were not favourable.

> "Firstly, where I was studying when I am doing my work at home I did not grasp a thing. My problem was that I travel and when I get there; there are no laboratories things like that; library; and only three building blocks and administration for the whole school. However, some teachers were good in the sense that they will explain and demonstrate in such a way that you will end up with some understanding and get the picture."

The above quotation identifies a disadvantaged school as one that lacks certain kinds of resources that made learning and teaching difficult. These resources include science laboratories for experiments. As one participant noted:

> "What I can say is that I come from a disadvantaged school where there was a lack of resources for students who had the potential … very unfortunate not to have resources … in order to develop their knowledge at high school until they reach university."

Human resources were also lacking. A first-year student doing a Bachelor of Commerce in Accounting observed that:

> "Eish... in my school they do not have enough resources, like mathematics we didn't have a teacher that time we were studying on our own and then we just consulted anyone and other students and also other teachers from other schools. We only got an educator later; and there was a strike in that year when we were doing Matric and that influenced or affected our performance because we did not have enough time to study. It was hard, very hard ... the resources if I compare them to now, I have got access to a computer, at school there were no computers all that stuff, and you are using old textbooks. It's hard."

In addition these schools were located far from their homes so they had to travel for hours to get to school. Two of the eight participants interviewed said that they had to walk long

distances to their respective schools; one of them actually walked for two hours to get to school.

Five out of the eight participants interviewed said that their school background had an impact on their performance at university. One said that she had never seen a test tube in a laboratory. Teachers used 'surrogate' apparatus to demonstrate how some of these instruments worked and what they looked like. She went on to give credit to the teachers who did this, as the learners at least had a visual image or a picture of some of the apparatus:

> "As I was studying at school from rural areas, it was poor, many facilities are lacking like laboratory, so I didn't have experience how to use like a laboratory and teachers, sometimes we didn't have like qualified teachers, trained teachers sometimes other subjects were 'taught' by the other students who didn't complete their degrees at university; they come to our schools because they were unemployed and teach us."

It is difficult for disadvantaged schools to offer quality education when they are deprived of economic, material, social, and technological resources. Computer literacy was a scarce skill among students from disadvantaged schools, as one participant noted:

> "Yah, yah because in my school we didn't know about computers, and now in my first year, I start learning about the computer and doing all this stuff, I don't know I don't even have an idea what was a computer, how to do this stuff, some students seem to have some background information about these computer courses and they are performing well. In my first year I even failed ISTN because I didn't have background knowledge about certain concepts."

Conversely, some participants felt that even though their schools lacked resources, this did not necessary impact on their academic progress at university:

> "My school background did affect me but then *kokunye* (on other things) I am okay."

Others were less certain:

> "May be, but I cannot be certain, because the high school where I studied was not all that advanced and there were limited resources."

However, other participants were clear that their disadvantaged school background compromised their higher education, as shown above. For example, a 2nd year male student said:

> **"**I think because when I speak to other students about something we have been doing at the university you find out that it is something that they have done at high school

> so they have advantage and the lecture(r)s were expecting us to have that background knowledge about it/ so to me it was a disadvantage."

One of the problems at disadvantaged schools is the quality of the education offered. A 2nd year student argued that "teachers were not able to explain and clarify issues and concepts so that they could receive quality education." Another student explained:

> "I can say that the school I attended had a very low standard of education especially the teachers, they 'robbed' us when it came to education. I can affirm this because I myself for many things were self-taught especially mathematics. And I could see that we were doing absolutely nothing and wasting our time."
>
> "Teachers from disadvantaged schools were not able to explain and clarify issues and concepts so that we could receive quality education" (first year commerce student)."

When disadvantaged students came to university they lacked specific background knowledge or concepts which were supposed to be taught at high school in certain subjects. Moreover, there is an inferred direct link between resources and the quality of education offered in schools as inferred in the preceding passages about the socio-economic status of the schools in terms of resource endowment (physical, material - textbooks etc, and human – teachers). However, not all disadvantaged schools were as bad. One first year student noted that:

> *"ngingasho ukuthi eskolweni kwaku-right ngoba otisha ababesifundisa babesi-motivata ukuthi siqhubeke sifunde njalo…futhi ne-library yayikhona ku-community iseduze. Manje yonke into ubuyithola.Besekuthi la yonke into i-right, noma sihlal off-campus uyithola yonke into i-accessible, yikho ukuthi ufica ukuthi izinto ziningi ukuthi wenze ezinye izinto ke."*
>
> Translation:
>
> "I can say that at school things were okay because teachers motivated us to perform better and we had a library which was accessible from my community. Thus, everything was easily accessible. However, here in the university, there is almost everything and is easily accessible and this makes one's life easier when you have tasks to be done."
>
> *"Eskolweni kwaku-right ngoba wawukwazi uku-raiser iview yakho anyhow njengami nje ngoba kush' ukuthi eklasini kwakufundwa noma yikanjani ke laphaya kwaku komayikhulumela so kwakulula ekutheni u-understand(e) into ngoba wawuyibuzela noma yikanjani… kanti lana hay-ke kuthanda ukubanzima ngoba eish, uthi uyabuka yinqwaba uthi uyabuza uvele ubhede bese bayakuhleka."*
>
> Translation:

> "At school it was good because you were allowed to raise your views anyhow. When you did not understand something, you would just ask anytime, anyhow. However, here [at university] it is very difficult, because the classes are big, and thus you are scared of being embarrassed to ask questions lest you be laughed at for a dunce should you make a silly mistake or ask a stupid question."

The crux of the matter is that the conditions at disadvantaged schools made their (students from low quintile schools) livelihoods and outcomes miserable. The following narrative by one of the student articulates this notion:

> "You know when you are coming from the dark to light it is hard to adapt big time … when I came to university I had to change my lifestyle because at high school we were dependant on teachers, and now suddenly you have to be on your own, no one to encourage you, you have to read books on your own; now you are at a place where lectures (lecturers) speak one language, English; you did not know you have to consult…."

My analysis suggests that unequal school resources impact on the quality of education and student outcomes in poor schools in South Africa. Furthermore, students from disadvantaged schools preferred the type of teaching they got at high school such as smaller classes where they could be some interaction. Despite the disadvantages in poor schools there were positive things in certain schools. Students received motivation and information about NSFAS and other things from teachers.

School socio-economic status had an impact on the academic progress of students from disadvantaged schools. This is substantiated by a body of literature (refer to chapter two) which links school background and academic performance. However, in this study there were some good things that poor schools offered that are not offered by the university, that of smaller classes. The nostalgia by disadvantaged students for smaller classes is understandable, given the collaborations and reflection they allow for. Students are able to ask questions. Offering smaller classes at university has major cost implications (see also chapter seven). What comes clearly in this section is that the livelihood context at the pre-university stage is important as it influences how low quintile students perceive learning and teaching at university.

6.2.4 Households or families of students from disadvantaged schools

Another recurrent theme among the participants was the absence of a father in their households. Students from disadvantaged schools come mainly from single parent homes. One student said:

> "Hmm...I have a single parent, my mother; my father passed away when I was doing grade 11. He was employed and my (mother was) unemployed and when I lost my father then I ceased to have a parent who was employed who cared and that put me in a bad situation so I think that had an a serious impact as you know losing a parent who had good support for you and was employed…."

The absence or loss of a father who was the sole bread winner had an adverse impact on their lives in general and academic life in particular.

> "I come from a very, very 'unable' family, very, very disadvantaged family, so it was very difficult to cope because of that background where I come from and yonder there are certain things that happened in my life that had an impact on my academic life. I lost two people at the same time in my family, and they were buried on the same day, and this was my first time to see a dead person."

A considerable number (more than half) of the participants were the first-generation cohort to attend university in their families or households. A first-year female student studying geology had this to say about her household:

> *"Kusho ukuthi la engisuka khona yikhaya la okuhlushekwa khona, bengingo wokuqala ukuza la ukuzofunda. Zonk' izinto vele beziyale nale singekho-right isimo. Laph' engiphuma khona akukhona e-rural area futhi akukhona e-urban, yindawo nje ngingathi yindawo ephakathi nendawo.Yikho nje ukuthi vele ngangifunda es'kolweni esiduze ngihamba ngiyakhona ngenyawo ngiphinde ngize ngenyawo."*
>
> Translation:
>
> "I come from a big family which is poverty-stricken (…la okuhlutshekwa khona), and I am the first person to study at university in my family. And the place where I come from is neither rural nor urban. The school I went was a walking distance from home so I walked to and from school."

Many of the participants' parents were not educated. A fourth year female student noted:

> "I don't know what to say but I could say that I am from a big family. Okay and … *abazali bengafundile uyabo* (my parents were not educated)…may be *bagcina* ku-8 (they went as far standard 8)... although *bengafundanga bona bayaku encouraja ngesikolo* just that they were not advanced *ngesikolo* (even though they were not all that educated they valued school and they encouraged us to study further)."

The families of students from disadvantaged students were poverty-stricken:

> "My family is not rich; my mother is the only bread winner who also pays for our education and my father passed away a long time ago so we solely depend on my mother for survival. In terms of her education she went as far as standard 2, however, she still encourages us to go to school to get educated."

Parental involvement has been linked to the cognitive development of a child and academic achievement. While many disadvantaged students come from single parent families, where they do live with both parents, the parents are uneducated. From a social capital perspective the presence of a (successful) father in itself constituted social capital in terms of material provision and a role model. The literature notes that most children (especially daughters) with highly educated and successful fathers succeed academically and in their careers (refer to chapter 2). From an SLA perspective, this means that students from disadvantaged schools had a constrained asset base which meant that they could not respond effectively to shocks and vulnerabilities.

6.3 Livelihood Assets at the Pre-university Stage

A number of factors adjudicated the navigation of students from low quintile schools to university. These factors relate to livelihood assets at the disposal of these students during pre-university.

6.3.1 Motivation to come to the university

Most of the participants were motivated by their poor or disadvantaged background to come to university, and also self-motivation. They saw education as the sole vehicle to enable them to obtain decent employment and escape from poverty. One of the participants observed:

> "We all don't have fathers and it's just a 'mess' … now we are here at university … and that is the only thing that motivated us, our family backgrounds."

Note also that the plural 'we' in this passage. The 'we' at issue are the friends that this participant (a first-year male student doing a Bachelor of Commerce in Accounting) studied with at a disadvantaged school and they are now together at university. Another first-year

participant studying geography and environmental studies described his motivation for coming to university as follows:

> "I had a strong belief in myself that one day I will study at university despite a gloomy cloud hovering over me that my mother was unemployed and me also. My teachers at school always asked me questions about my future plans. My Life Orientation teacher was very instrumental by even further telling us about NSFAS and Edu-Loan."

The only way to exit a poor background is to get educated. Despite the fact that most of these students have uneducated parents, these very same parents were 'the wind beneath their wings' to propel them to come to university, as another participant said:

> "My mother also put pressure on me because she was the one who made savings from her money for my registration, it was tough. I did not know whether or not she will be able to get money for my registration; however she was able to provide. That was also another thing that motivated me, because I told my mother that if I finish Matric I want to go to university, and she say that I was capable of doing such a thing; and with this support I had to spend more time on my books than ever before."

Some dreamt about studying at university, which became a self-fulfilling prophecy as articulated by this 3rd year participant:

> *"Phela we all dream, nami I had my dreams ukuthi I want to be a pharmacist. Again akwenzekanga ukuthi ngibe yiyo.Yiyona eynza ukuthi ngize lana…I will say mina myself ngoba angeke ngithi ngangibone kubantu basekhaya…so mina ngazithandela."*
>
> Translation:
>
> "We all dream. Even I myself had a dream of becoming a pharmacist. However, that did not happen even though this is what brought me here. Obviously, the motivation derived from me because I had this desire to attend university someday."

While it has been noted that many teachers at disadvantaged schools were not well-trained, they were also the force behind some of students coming to study at university. They provided students with valuable information about how to apply for admission to university and information about funding, a vital issue for disadvantaged learners. In common with the following participant, my own first motivation to come and study at university came from my high school teacher:

> "My high school teacher who taught me that education was a powerful tool that I must possess I my life, and so that guy motivated me in a powerful way. He is the one who helped me to be here."

In two cases, the students themselves took the initiative after being encouraged by their teachers. A first-year female student observed that:

> *"Kakhulukazi kwaqala kwaba wutisha awayengifundisa last year wathi ngia-applaye.Kwase kwaba yikho ukuthi ngase ngibuka isimo sasekhaya ukuthi ena kusho ukuthi kufanele ngifunde ngoba manje ayisekho eyinye indlela ongathola ngayo umsebenzi uma ungafundile; manje ngase ngithi kungcono ngiqale ngifunde before ngiqale ngisebenze so ngizokwazi ukuthi ngibaphilise ekhaya."*
>
> Translation:
>
> "In actual fact it was my teacher at high school who encouraged me to apply to university for admission. Then I had to look at the current situation in my family or home and where I come from, consequently this meant that it was necessary for me to first go to school (university) and study before I start working because there were no other alternative avenues to secure decent employment without (tertiary) education; so then I decided to study so that I can provide for my family."

Some participants were motivated by peer role models:

> "The thing that motivated me to come to university was my cousin who was studying a Bachelor of Commerce degree at the Pietermaritzburg (PMB) campus of UKZN. From where I stay and PMB campus is not very far we only paid R13 for a taxi to get there. It was my mother who asked me to attend Matric classes which were run under a teaching project that targeted disadvantaged local high schools. For instance, in my high school there were instances where certain subjects did not have teachers taking them or even if there was a teacher, this very same teacher was under qualified to teach those particular subjects. So this was one reason why mother advised me to attend classes at PMB. When I came here I got motivated by students who were teaching us and they helped us on how to also apply for admission at university and many other related issues."

Beyond relational motivation (being motivated by a parent, teacher etc.), self-discovery in terms of inner strength and abilities was instrumental in deciding to come to university. One participant said that:

> "Because I realised I was good in calculations/the degree I am doing require Accounting and Maths/ I have obtained high marks these subjects. It helped me because I don't like reading (a chunk of things) but now I am good in calculations… so I decided to do a Bachelor of Commerce Accounting degree."

Whereas the educational literature (see chapter two) is silent on social capital among uneducated parents or single parents, it is not always true that students from families with low levels of education are lower achievers at university. However, this needs more empirical backing. In this study uneducated parents were a source of social capital both at the social and economic levels. These uneducated parents motivated and financially supported their children with registration fees. Teachers were also instrumental and influential in helping the participants attend university through providing information on NSFAS and how to apply to university. This suggests that teaching training programmes should incorporate modules on the motivation and provision of information. This is social capital, as human capital is one of the ingredients of functional societies.

6.4 Livelihood Context and Strategies at University

At university students from low quintile schools are susceptible to shocks and vulnerabilities. Given this context, in order to survive materially and academically these students resorted to certain coping strategies to earn their livelihoods.

6.4.1 Advice to University Authorities about First Year Students in Particular and Student Issues in General

Based on their experiences, the general feeling among the participants was that:

> "'freshman' (first year students) should be allocated single rooms until such a time when they have adapted to the environment they can share a room with a mate."

Some also felt that food should be provided for first-year students from disadvantaged schools when they arrive at university.

The issue of providing relevant information using a standard language that students can comprehend was important. This will facilitate understanding and rapport between lecturers and students. Participants also felt that students should not be given an unbearable academic workload.

> "Things should be done professional making sure that students get plenty and enough information in a standard language and teaching in such a way that students will be able to understand. Moreover, students should not be excessive academic work and

> demand that they submit assignments too early but that they should be given enough time to work on it."

Meanwhile, while other participants in this study were willing to offer their advice to first year students, some were of the idea that as students they were not qualified to offer such or any form of advice to other students. Thus, one participant felt that, instead advice to freshmen at university should be provided by those who are qualified to do so, the lecturers themselves. This said, a 2nd year Public and Information Technology participant said that:

> "If I can give advice (to first years), that will not be proper advice which comes from a person who is a student like me. This advice must come from people who are actually shape (making/modelled) student because a student is actually ignorant, and s/he (the student) is shaped by the very people or the lecturers that teach the student at issue so that s/he develops into what they expect him or her to be. Thus, I am not fit to give advice to lecturers or teachers on how a student should be able to cope at university."

Student-staff interactions and collaborations were seen as very important ingredients for success at university as noted in by this participant:

> "*Kahlekahle kufanelekile ukuthi kubekhona ukuxhumana phakathi kwama-lecturers and their students, ngoba most of them are very helpful, they understand all situations owatholayo if ungamchazela ngento e-personal uyakwazi ukukusiza njengomzali, even inking e-personal like ulambile akakwazi ukukulahla into angaphinde ayenze futhi abe nendlela azofunda ngayo negroup yabantu azophila nabo ngoba phela igroup yabantu igcina yenza ukuthi kubekhona leyonto ophila ngaphantsi kwayo, kubekhona indlela ezophazamisa indlela ophila ngayo. If ukuthi uyafika kwi first year uzophila negroup yababtu aba-ignorant. Kuzobakhona izimo lezo ongeke ukwazi ukuphila kahle. E.g ufuna ukuyo consulter ngeke bakunikeze imodule ethi go and consult so kufanele uthole eyo group ezo ku motivater ezothi lana asenze kanje uma uyi-first year kubalulekile ukuthi uhlale u-in touch nama-lecturers."*

> Translation:

> "In actual fact there must be proper communication between lecturers and students because most of them are helpful, they understand all situations that students experience, even when you relate to them personal issues such as student food insecurity they are able to understand help you like parents, and how to be behaviour in a group of people that you associate with...If you are a first year, there circumstances that you will be uncomfortable with, if you want to navigate successfully these lecturers will also help you find a proper group of people that you will associate with that will motivate you because there is no orientation course on consultation, so it is important for first years to maintain close interactions and collaborations with their lecturers."

> "I expected them (lecturers) to be approachable. Because some of them were not affable and user-friendly to students; however, there were some who were engageable and willing to help students."

Multiple choice as an assessment tool should be reviewed by the university. As one of the research participants noted:

> "The other striking thing that I have observed here pertains to that multiple choice examination papers, wherein one student who has not studied at all just ticks in the correct answers and pass, and s/he is dubbed intelligent or clever. You will have to review some of these things."

The orientation programme should be reviewed to focus more on relevant academic issues rather than just social entertainment and venues. One participant had this to offer as advice to potential first-year students and their parents:

> *"… ngangingekho kuma-orientation kuqala unyaka so that was my problem. I did not know ukuthi kune-orientation.Abazali bafanele babekhona ku-orientation. Abazali kumele bakhunjuzwe ngaleyonto (i-orientation) ngoba it does have an impact… even labo abangezi nengane zabo bafanele bakwazi lokho."*
>
> Translation:
>
> "The fact that I did not attend the orientation week for first years, was on its own a problem. Parents should attend orientation, and they should be reminded of the importance of this event for first years because of its impact on students, and those who do not attend should also be reminded."
>
> "You see people who design orientation programmes. Not enough information given on what to expect from a module during orientation. Thus orientation did not focus on academic issues – the what and how to do it, nuts and bolts of academic work at university for freshmen at university."

Other advice was that student funding should determine the number of books (for each module) that each student needs; and money for books should be given directly to the students. The R1000 allocated for books is not sufficient.

Four salient issues come to the fore in this analysis, namely: residence accommodation; food security; financial aid; and orientation. Universities adopt various models to allocate residence accommodation to students. The most widely used are those where first- and second-year students share a room, with single rooms for senior and postgraduate students. This study revealed a problem with such models, as perceived by disadvantaged students. Given the diversity of students in higher education, this policy needs to be revisited. The

issue of food security is at the heart of student livelihoods at university. It affects first-year students on their arrival at university because some do not even have pocket money; their parents could only provide the registration fee and transport costs to university. This is linked to another very important aspect of student livelihoods at university, financial aid. NSFAS allocations are not processed at the beginning of the academic year. First year students are vulnerable and incapacitated.

6.4.2 Advice to First year students About Academic Integration and Coping Strategies

While most of the research participants did not attend orientation or only joined in towards the end because they came late to the university, they felt that it was important for first year students to attend the orientation programme. It could be that they learnt about the orientation from others who attended it. Some felt that parents should be informed about the importance of the orientation programme for first years accompany their children. For first-year students, especially those from disadvantaged schools, forming study groups as soon as possible was an imperative. The study groups should consist not only of their friends, because friends tend to end up playing and wasting time**.**

The study groups enable students to learn how to manage their time, for instance together deciding on the date of the next meeting. They also enhance students' understanding of [abstract] concepts, as expressed by this first-year participant:

> "I can say of you are a first year students and you form groups as soon as possible with different people not only your friends to get different views /ideas because if you are only friends if you are only friends you end up like just playing sometimes wasting time but if you are with people from different places you able to come with different ideas and your group will be effective."

Quizzed as to why he felt study groups, which I perceive as a coping strategy for successful academic navigation, were effective, he observed:

> "It is effective because if you are in a group you will meet and decide in our next meeting we will deal with this; and this so everyone must go and read the chapter and after that we will meet and then sharing ideas and how do you understand and you collaborate that information and it will be useful sort of and you will know some concepts that you did not understand from this chapter…."

Some first year students join the mentorship programme within the university. The mentorship programme at the University of KwaZulu-Natal allocates a mentor to students who are at risk academically. Based on their experiences from the mentorship programme, the participants felt that it was vital for disadvantaged first-year students to attend as they have received help from the programme. One asserted that:

> "Firstly, I can say that they should have a general picture of what to expect at the university…. And also take advantage of mentorship programmes so that they can be able to cope with challenges faced at university."

Another participant argued that there was no such a thing as a difficult course at university; as such she advised first years to believe in themselves in order to be successful at university:

> "Do not listen to people who say to them (first year students) that certain courses or modules are difficult because at university there is no such a thing as a difficult course or an easy one; this is all in the state of your mind."
>
> "To believe in themselves, and forget about what happened at high school and focus on the current situation at university."

Participants also advised that first-year students should keep in mind why they are at university and realise that things are different from high school. They should not despair when at times they score low marks compared to those that they used to score at high school, because with the passage of time one can improve and perform better.

Making good friends and fostering student-Faculty staff interactions is helpful. Academic life does not take place in a vacuum but in a social space and this space should be congenial in nature. This said, the participants believed making good friends and establishing networks within the university were essential for first-years to navigate their academic endeavours successfully.

> "There should be communication between lecturers and students because most of them are very helpful – they understand situations in which most students find themselves enmeshed in. They also help you 'materially' when you do not have food."

The participants also pointed to the need to avoid students with undesirable habits:

> "There are students who are useless (for academic purposes) because they specialise in drugs."

My analysis in this section points to four issues that are important for first year students at university, which epitomise the four spheres of social capital. These issues are: joining the orientation programme, staff/student collaborations, joining mentorship programmes, and making good friends. As noted earlier, this study identified academic orientation as more crucial than the traditional orientation which emphasise social activities at the expense of the academic. Student/staff collaborations are important ingredients for both social and academic integration and the concomitant intellectual development of disadvantaged students in the university system. They also operate at the level of economic sphere, in the sense that some lecturers provide material and financial support to students in need. Friendship operates in the social sphere of social capital, but also encapsulates other spheres of social capital such the academic and economic. It should be noted that these spheres of social capital are intertwined. The categorisation here is presented merely for explanatory purposes.

6.5 Livelihood Context: The University Environment

6.5.1 Difficulties Experienced at University[20]

One research participant graphically expressed the humanly devastating experiences of first-year students' learning, living and material conditions at university:

> "When you are a first year the problem is that of fear. There are places where you can find help like the Writing Place but the environment is so intimidating and actually buttressing the very same fear. For instance, you get to the Writing Place you find people that will aggravate that same fear like they will ask you questions like 'where is the problem?[21] /how should I help you/how did the problem start? When you are a first year and you just arriving for the first time at university you know nobody and you need a place to sleep and you do not know where to start; the problem here is accommodation and you are told there is no space for you and you are far away from home. If I can give you an example: I and my cousin were staying in a TV room for two months; when I am asleep my cousin will guard me and *vice versa*/my bag was

[20]The reader is warned that some of the themes or quotes could recur in these sections that delineate the difficulties faced by students. This should not be construed as an anomaly because I have already asserted in the introduction to this chapter that themes are organised in alignment with the interview schedule. Thus, the reappearance of some themes merely indicates the context in which they emerged rather than lack of organisation or carelessness. Refer also to my methodology section (chapter three).

[21]These questions (that are alleged to have been asked by staff in writing or language centres within the university) are psychiatric kinds of questions that are not helpful in such a context or environment.

> my bathroom, until we got some dicey private accommodation where you have to raise a deposit before you can occupy the place, and this was one of the most difficult times in my life because the only money at your disposal is the R2500 for registration; and how do you raise a deposit for residence?"

Some of the students felt that their academic workload was overwhelming. One participant observed:

> "Being taught so much chunk of academic material at the same time. Within a short space of time you are taught about a computer, and suddenly how to write an essay and develop the argument thereof. After that you are on your own and even more confused and you don't even know where to start."
>
> "The other difficulty is the academic workload which more often gets overwhelming because of time constraints."

The participants listed a number of other hardships associated with their academic lives, namely: studying on their own; reading problems; and failing a course dismally or failing examinations. This said certain experiences were peculiar to individual students, as one of the participants reflected:

> "Difficulties! It depends on an individual, as for me I am just myself. However, my only difficulty was passing my exams."

One first-year Accounting student bewailed both his roots and unpalatable teaching styles:

> **"***Eish*! It was hard because I was coming from disadvantaged school, I am not used to the teaching style, this transparency stuff; at school we were using chalks. Teachers were able to explain each and everything. Whereas here, the lecture (lecturer)[22] will highlight the topics and you are the one who is supposed to cover all the stuff even the teaching style."

It was also difficult for a number of the participants to adapt and adjust to the new university environment, having come from a 'dark', disadvantaged background. A first-year female student depicts this 'darkness' as follows:

> "The university is far from home; and I am a person who is accustomed to staying close to her family; in such an environment you do not have to fend for yourself,

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[22]Students often confused the terms 'lecture' and 'lecturer'.

> everything is just within reach. It is difficult here at university because you have to fend for yourself on daily basis something that one is not used to."

There was also overwhelming agreement among the participants that a lack of food and hunger were perennial problems during examination periods. A minority of participants were perturbed about being far from home and grappled with the fact that there was nobody to provide for them.

The 'perennial' problem however, was accommodation and financial issues:

> *"...kwa-first year ngingathi imali ebesiyisebenzisa since we in the financial aid then u-Financial aid uthi uzofaka imali inkinga engibanazo kakhulu kwi-first year yami khona academically bekungeyona inkinga because abekhona amalectures abekade e-open if unenkinga asho ukuthi ufike kuyena you are always welcome, uya akwamukele kube inkinga lezi ezi-social maybe ezendawo yokuhlala. Ezinye inkinga ohlangana angayifaki (u-Financial aid) uthole ukuthi you are struggling all over the period you waiting for that money, ngezinye zezinto eziyinkinga ohlangana nazo kwa-first year."*
>
> Translation:
>
> "The issue in my first year of study [at university] was not academic, but it was that of money from financial aid [NSFAS] which was processed very late and hence you suffer for some time before they process it. However, there were lecturers who were helpful when you were faced with a problem."

Residence accommodation was a recurrent theme in this study. The first issue relates to social capital at the social and academic levels. Other issues concern the material circumstances of student livelihoods while they are pursuing their studies at university. Economically, disadvantaged students had a lower stock of assets and resources and this rendered them vulnerable and therefore unable to fully focus on their studies.

6.5.1.1 Some of the things that they did not like

Finding accommodation and conditions in some of the university residences were thorny issues. Problems range from the physical condition of the residence to their social ambience. The physical conditions included things like cooking appliances and showers, and overcrowding.

> "The way people stay in residences. For instance, people in the same study group others allocated in off-campus, in town and other on campus. This makes it difficult to

> coordinate your work because of time in terms of bus timetable. Some residences are better (in terms of security) but some are in bad condition; no study desks, stoves, and washing machines. The presence or absence of these facilities has an impact on a student's academic work."

Student Housing is very slow in processing the allocation of rooms. It was suggested that they do not plan properly:

> "When it comes to residence DOSH has serious problems because each and every year when students arrive in this university they are told residences are full when they were sent letters that they have been given accommodation in university residences; and this is a problem for a first year student who is just arriving for the time at university, let alone they are coming as far away as Eastern Cape or Newcastle."

It was also noted that the mattresses in some residences were in bad condition and not comfortable to sleep on:

> *"First indawo yokuhlala ke nga-struglisha kakhulu so ke nje ngastruglisha kakhulu ngangingenayo nje".*
>
> Translation:
>
> "In the first place, I struggled so badly to secure accommodation in this university."
>
> "I used to stay at Point in town. Yah! In one of the residences there was a bus. "Eish"! I can say that to operate on somebody else's timetable is not good because sometimes it happens that you have planned to do something else then has to leave at 22h00 so you are forced to leave your studies while you still want to continue and finish the work that you have been busy with."

Issues about faculty staff and lecturers:

> *"Engingazithandanga wukuthi uma ufika* [translation: "what I did not like when I came to this university] during i-consultation time *umuntu athi* u-fully [translation: someone says I am fully] booked, you may come some other time. This is not possible because you are rushing for the next lecture. So my expectations on how I will be taught and were not fulfilled sort of" [things that I did not like are things like when you have an consultation or appointment with a lecturer, your consultation is deferred to some other time which is not suitable for you have other commitments like the next lecture to attend]."

The problems related to the social ambience were as articulated noisy neighbours or roommates.

> "Problems in the residence, particularly noise, you get distracted and cannot concentrate. This applies when you are in the library when there are bashes which usually take place around the library especially at the Westville campus."

The issue of overcrowding was associated with off-campus private residences. The university got involved after a spate of bad incidents took place in private accommodation. The issue of noise was raised by students staying in residences located deep in town especially at Point and South Beach in Durban. In addition, students from disadvantaged schools were not happy with sharing a room with a stranger. This was particularly true of first-year students:

> "In the residence where I stay we share rooms and there is a lot of noise coming from radios and this disturbs my sleep and studies."

Some cited issues of discrimination, racism and classism:

> *"…bese ukuthi into engingayithandanga kakhuluazi lana e-kempusini ngibona sengathi i-racism ayikakapheli".*
>
> Translation:
>
> "Things that I badly did not like here on campus, I suspect there is still racism."
>
> *"Eskolweni nje, ngizosho okuncane… mhlawumbe ngingasebenzisa indaba zo-diversity…kuncane la ekempasini…kuna ma-buildings amaNdiya nama-Sulumani kodwa ufice ukuthi awama-Christians namaZulu noma oShembe akukho nokukodwa okwabo, futhi ubusufica unkuthi insuku – akhona ama-days athile abawabiza ngokuthi ngama-holidays ajwayele ukuthi acelebrwethwe (celebrate) uma kuyikuthi athinta lawo ma-religion.Besekuphinda kuba yikhona ukuthi ufice kunabantu obabonayo kahle ukuthi banayo/bagcwele i-racism, abafuni ukuhkuluma … ngoba bena leyo attitude, bese kuba nalento le abanye abazosibiza ngama-blacks – angiyithandi ke leyo… ungcono no-African instead of black."*
>
> Translation:
>
> "Here at university, I will mention few things...perhaps I will have to use issues such as diversity...it is not enough here in this campus...there are [religious] buildings designated for Indians and Moslems, however, you discover that there are no such structures for Christians, Zulu people such as the Shembe Movement. Further, you find that there are recognised days or dates [which the university calendar recognises] for Indians and Moslems that are celebrated annually. Moreover, there are people who are easily discernible that are full of racism they don't to speak [to you] because they have that [racist] attitude. And then there is this category of people who call us Blacks, seriously speaking I don't like that [being addressed as Black]...Instead it is at least better to be addressed as an African than as a Black."

> "A certain lecturer who was a coordinator of a certain module discriminated against students from disadvantaged background based on their accents" (see elaboration on section 6.5.1.7). .

Shelter is one of human beings' most basic needs. For disadvantaged students, residence accommodation is a presenting issue. Based on this study and the 2009 student survey at UKZN, it was identified as one of the services that need to be improved. The problem revolved around inefficiency on the part of administrators in the allocation of rooms. There is also room for improvement in the creation of social capital at the sphere of student support services.

6.5.1.2 On food insecurity or Student Poverty

The participants felt that the NASFAS allowances for food were insufficient for 'sustainable' student livelihoods:

> *"Engikudlayo ku-determinwa (determined) ngokusephakethini (pocket) kush' ukuthi ngikhuluma ngemali.Uyabona lento yase-funding isiza kakhulu ama-student ngoba otherwise nabe ayikho ngabe angikho la.Kush' ukuthi noma nakho ikhona iyasiza hayi ngalendlela eyanele ngoba name into engizidlayo angingizidli izinto engizithandayo".*
>
> Translation:
>
> "What I eat is determined by what is in my pocket; thus, I am referring to money. The money from student funding is very helpful because if it were not for it I would NOT be here (studying). Although it does help but it is still not enough because I don't eat what I would love to eat (under ideal conditions)."
>
> *"Le eyama meals i-enough, R500, yanele ukuthi uthenge okwanele ukudla kwenyanga yonke, kodwa into eyenzakalayo nayo iphinde inganeli ngoba ungathatha kuyo uthenge incwadi...."*
>
> Translation:
>
> "The R500 allocated for meals is enough to buy a grocery for the whole month. But the problem is that from the same amount you also have to buy books..."

> "The university need to have its own shop, not the other shops. You go there and buy bread for R9.80 and how does a student raise such an amount of money? Thus, you mean that every day you need to buy bread that is so expensive?"
>
> "You end up buying those basics like rice, braai pack, mealie-meal, and you can't buy cereal etc."

The issue of food insecurity is a sensitive one. A first-year student, when asked what he did when he ran out of food, responded:

> *"Hm! Bengehluleka ukuthi mhlampe ngikhulume nomuntu entweni ezi-sensitive, bengehluleka ukuthi ngiyibikele omunye umuntu kanjalo, bengiyibikela kuphela abantu basekhaya."*
>
> Translation:
>
> > "It is difficult for me to talk to a stranger or anyone other than my relatives about sensitive issues (such as money and food)."

This finding is similar to that in the preceding section. However, the most salient aspect is that disadvantaged students' livelihoods at university revolved around NSFAS. A lack of budgetary skills and ability to save are challenges that the university student support system should consider tackling to mitigate some of the problems associated with student hunger.

6.5.1.3 Staying off-Campus

Students who stayed in residences in town felt disadvantaged in accessing these resources at night, when they wanted to do their academic work. The buses leave and arrive at these residences at certain times. Even if a student is still busy with his/her work, they have to abandon it to catch the bus at those particular times. Some also felt that living in off-campus residences interfered with how their groups functioned, especially if one were a member of a group where the majority of members stay on campus.

6.5.1.4 Language and Communication at University

It is important, if not a requirement, that students entering the university should at least be able to communicate at all levels (read, and write and speak). However, as one participant noted:

> "This [language] was a problem for people coming from rural areas who were not taught how to read and write. It was hard to adapt – to read the textbook on my own."

The participants felt that communicating with lecturers was a stumbling block to their academic progress, especially for first-year students, let alone those coming from disadvantaged schools. It was alleged that lecturers do not communicate effectively with students; in some cases students alleged that they were instructed not to disturb the smooth delivery of the lecture by asking questions. The reflections of one of the participants underscore this point:

> "Yes, language is a problem in the sense that at school where I come from we were taught in (concurrently) in our mother language that I speak every day, and when it comes to asking questions I use the same language to the teacher that is teaching you; but when you come to the university the lecturer will explain something in differently and at the same time you don't understand what you are being taught and hence you are also scared to ask questions for clarity. To worsen an even inflamed situation, you go to a person (a lecturer) who speaks another language and this very same person asks you what is your problem you are scared to ask to explain your real situation because of language, and this person will further make it difficult instead of really explicating for your understanding.
>
> *"Yes, it's a problem i-language, esikolweni esisuke sifunda kuzo each course or subject osuke uyifunda kuyafundwa nge-language yakho oyisebenzisayo since ngisebenzisa isiZulu, my mother tongue language they gonna use it if ngibuza ngayo kulomuntu obengifundisa using my language. Then uma ufika la uzoyichaza lento ube kanti ungayi-understand and usabe ukubuza…uzofika kumuntu okhuluma another language akubuze ukuthi yini inkinga yakho, ikuphi uzochaza achaze noma kukhona akushoyo ongaku-understand kunzima ukuthi again ubuye back achaze ongaku-understand."*
>
> Translation:
>
> "Yes, language is a problem (at university) because at school in all subject that you learn you are taught using your mother tongue, and even when I ask questions I use my own language. However, when you start attending university, you are scared to ask questions on issues that you do not understand. Moreover, you pose a question to a person who speaks a different language, and that person may try to explain that and you still do not understand, but you intimidated to ask further for clarity."

> "There is no engagement in the sense that some lecturers will instruct you not to disturb them by asking questions during the lecture…."

According to the participants the problem stemmed from their fear of speaking in 'broken' English, as it is the medium of instruction at university. They were afraid of being embarrassed in front of other students who have a better grasp of English. Language was perceived as the single most perennial difficulty faced by freshmen, particularly those from disadvantaged backgrounds. A frequent lament amongst the participants was: "the language of that the lecturer uses is English". Some of the observations included:

> "Sadly the difficulty is the issue of language, it had a lot of impact because when one was reading a book it was difficult to understand it (what one is reading) clearly especially when you are first year coming from township or local area."

> "At some point when you need clarity (about certain issues raised during the lecture), you have to wait. And asking questions will sound as if there is a problem with you [you are a dunce] and this in fact has an impact in terms of one feeling inferior in front of other students. As result, when you write a test on the same issue that the lecturer raised in the session you end up failing and this is also related to the fact that one is coming from a disadvantaged school and also one's [disadvantaged] background in general."

Another participant said:

> "One is also being scared of asking questions and sitting in the front seats and let alone you are a freshman ['even sophomores']."

The lecture therefore becomes a one man show. There is no interaction. To make matters worse, some lecturers leave immediately after the lecture without entertaining any questions.

In terms of the language of instruction, code-switching was the norm in high schools attended by the study participants. The majority of disadvantaged students cannot communicate at all levels in English. There are two problems about language that affect students in their quest to acquire education. The first is that it hinders staff/student exchanges in terms of reflection. Secondly, the delivery mode of the lecture did not allow for engagement to facilitate deeper learning.

6.5.1.5 Things that were surprising

First-year students from disadvantaged schools were also surprised by their first test marks in different subjects. One participant observed:

> "It was hard because I even came very late, and it took a long time for me to get residence. Under such circumstances it was difficult for me to study and apparently I failed an economics test dismally. My first year has been very difficult and I hope that in my second year things will improve or get better."

First-year students expected that they would have face-to-face – one-on-one – contact with lecturers, but this was not the case for many. A first-year female student remarked:

> "At university most of the 'communications' are not transmitted directly face-to-face (verbally) but you find them on notice boards (hardcopies) and electronically through e-mail. The implication therefore is that one should not wait for hearsay from the rumour mill because people can mislead you by giving you misinformation."

> "The onus is on you to communicate with lecturers when you find such notices. Moreover, at university one is not pushed to attend lectures and lecturers do not bother whether or not you are in class unlike at high school."

The use of English as the medium of instruction was startling for some of these students. Language is central to teaching and learning. The question is: does it facilitate learning? How is one taught using a language that confuses one? Is the focus on language or on learning that particular language? Is one being taught language or the subject?

The interviews with students revealed that some had extreme difficulty, lexically and literally, in communicating in English. Many refer to both a lecture (process) and lecturer (the person or teacher delivering the process) as 'lecture'. Before the interview had even started, one of the students asked that we speak isiZulu during the interview. Those who preferred to use English most of the time could hardly complete a correct sentence in English. Most of them switched from isiZulu to English and back again.

The university environment can be overwhelming for newcomers. The analogy is that of first-year students coming from a pond (school) to an ocean (the university). Their response to this new environment was not so much about IQ but more about emotional intelligence. In this environment, there is depicted communication (passing messages through physical and electronic notice boards) and English is used in most academic interactions within the university. Thus, the university environment became an impediment to disadvantaged

students' academic progress, and social justice would lie in the creation of social capital at the academic, social and student support services spheres.

6.5.1.6 Least successful or useful methods

This section sought to describe what participants felt were least successful methods of curriculum delivery at university. The lecture, which is deemed the mostly widely used mode of teaching in the modern academy, was the least successful method. A lecture was not adequate because it is "simply a guide", remarked one participant:

> "Lectures are just a waste of time for instance, this semester (second semester) I attended 25% of lectures and 75% I spent in my room and the library studying on my own. I will only consult the lecturer when I encounter problems. I attended lectures only when I had problems with textbooks and notes – get them from the lecture guides that are given to students."

An explanation for this apathetic feeling about the lecture method could be the lack of engagement in the classroom. Further, it could be that these students preferred rot learning to deep learning or simply that these students could not participate in some lectures due barriers such as English language (see Jones et al., 2008; also chapter two).

6.5.1.7 Discrimination against Students from Disadvantaged Schools (by certain segments of the university community: Lecturers)

One third-year student and one second-year student believed that there was discrimination against students from disadvantaged backgrounds by lecturers and university administrative staff. The former alluded to the fact that language was used to discriminate against such students. He maintained that a lecturer would identify that you are from a disadvantaged background because of your accent when speaking English. Two of the students said that the test or check of the English accent was whether or not one "can roll his or her tongue and speak from your nose". Moreover, the participants felt that lecturers had low expectations of students from disadvantaged schools based the students' accent or language in general. One of participants who seemed to be struggling with his studies said:

> "A certain lecturer who was a coordinator of a certain module discriminated against students from disadvantaged background (based on their English accents). For

> instance, he will tell you that if you are from one of these disadvantaged schools, go to another student (who was better 'accented' than you in terms of English); something that is very painful to be referred to another student because he is deemed to be very clever than you because he went to those schools (model C schools)."
>
> "Another participant said: "When I realised that I had a problem with my lecturer I changed the course that I was doing, because I felt that I was not good to pursue this only as far as the lecturer's judgements were concerned those that said I am from a disadvantaged background."

A first-year female student said that discrimination was especially rife on the Westville campus. She dubbed this form of discrimination 'racism':

> "Here at college generally, I will be briefly, maybe I have to give examples of issues such as diversity especially in this campus (Westville) … and there are very few mentionables…there are religious structures (or buildings) that are associated with Indians and Moslems (Islam), but you find that when it comes to Christians and Zulu people or Shembe Movement, there are no such structures (or shrines) for them. And moreover one finds that for Indian and Moslem, religions, there are certain days that are even celebrated and designated as (special) holidays… maybe this is caused by the fact that this is Westville an Indian enclave."

According to her, this racism took different forms, such as being labelled 'Black'. She would have preferred to be tagged 'African' rather than Black:

> "On the other hand, the other issue is, it goes without say that there are people that explicitly show out that they are full of racism … and they do not want to talk to you because they have that (racist) attitude/ and then there are those who call or label us Blacks … I do not like this … labelled or being addressed African will be germane or better."

While racism still exists in South African society post-1994, other ramifications of discrimination have surfaced, particularly those associated with class. This classism manifested itself the English accent exhibited by students from Model C schools and the dress code which led to some disadvantaged students spending their NSFAS allowance on designer clothes.

6.5.2 Livelihood Strategies

To overcome the difficulties that is shocks and stresses faced at university such as those mentioned above in section 6.5.1, low quintile students adopted a number of survival

livelihood strategies. The subsections that follow are devoted to discussing some of these strategies.

6.5.2.1 Preferred Learning Styles

Students from disadvantaged schools preferred the following methods of learning:

- Internet
- Lectures notes and textbooks
- Past examination papers
- Self-study in the library
- Study group discussions
- Summaries from lectures
- Tutorials

"Tutorials were good, lectures worked less. I can Google some of the things. Angi-understand indlela abenza ngakhona; why can't they just say go and read page so and so.Ngangithi bazoza nama-summary. Omunye uvele eze ne-book and read from…we can do that ourselves. At least tutors are more engaging and useful."

Translation:

"Tutorials were good, lectures worked less. I can Google some of the things. I don't understand the way they do things; why can't they just say go and read page so and so. I thought they will give us summaries. Some [lecturers] will bring a textbook and begin to read for the class... we can do that ourselves. At least tutors are more engaging and useful."

"I can say lecture notes are good used in concert with the textbooks because if you follow (understand) the lecture notes and then you go to your book it worked well for a student and even Internet if you want to get more information about that subject."

"Lecture notes were useful if only they can be e-mailed in advance or issue (distribute) them during the lecture session because in this way you are able to refer or cross check something that you see which is at your disposal together with other students. Then textbooks, if you do not have financial aid you can be able to purchase

> those textbooks, and the reserve section of the library cannot also help because there are only two books for a battalion of students, so lecture notes are more useful and helpful (under such circumstances)."
>
> "For me in particular, it was to attend lectures and lecture notes and also self-study in the library."
>
> "Textbooks and past examination papers because in economics you can read the textbook and understand everything but if you have not done past examination papers you will have problems. Even though it is important that you do past examination papers, it is equally important to also read the textbook because you cannot just rely on past exam papers. Despite the fact that textbook is important, past examination papers are more essential in the sense that for instance, in quantitative methods in economics, during the first semester, an examination will consist of all the questions coming from a past examination paper with '*smallanyana*' modifications; thus further buttressing the essentiality of past examination papers."
>
> "I preferred Internet. Say if they post academic material on slides to the Internet and we just print them/because slides were summaries unlike textbook/slides were good because they are able to portray in a picture square manner what lectures (lecturers) failed to clarify in a satisfactory way. Lecture notes just increased the workload when they have piled up."

Among the most preferred learning methods were lecture notes, textbooks, and study group discussions, each of which recurred more than three and/or four times in the interviews. Internet slides, past examination papers, summaries from lectures and self-study in the library were also favoured by some, each recurring twice. Why did some respondents prefer lecture notes to attending a lecture? Do they have problems understanding delivery in oral English?

While helpful, lecture notes, summaries and past examination papers are learning styles that are associated with rote learning (scope, spotting) which detracts from deeper learning associated with understanding. Thus, the students' preferences could be based on laziness or the desire for shortcuts. Study groups, on the other hand, acted as social capital for students who could not grasp issues during a lecture. Thus, social learning encouraged understanding and deeper learning. Furthermore, tutorials emphasised the seminar mode of teaching in small groups.

6.5.2.2 Preferred Teaching Styles

Students from disadvantaged schools preferred to attend tutorials. The reason was that "you are few in a group of between 20 and 30" which allows engagement amongst the 'stakeholders' (tutor-students and student-to-student interaction). These students envisaged a teaching environment where they would be allowed to ask questions freely during lectures; however this did not materialise for some of them. They did not expect to be taught a lot of chunk of material in one lecture:

> "I thought you were going to cope; we were not going to attend three modules per day like attend politics, physics or maths in the afternoon; I thought that maybe I will attend one module a day say economics and after that you attend tutorials and then after tutorials you go for group discussions for better understanding of what you learnt during the day; but then you still going for the second lecture and even then you are still even more confused until the third one."

Asked whether or not their expectations were fulfilled in terms of how they were going to be taught at university, most participants felt that their expectations were not fulfilled in a number of ways. Some they did not expect to have to learn on their own. Others were of the view that lecturer-student ratios were too high:

> "I thought that the methods were going to be similar to those at high school but it turned out to be different. At school there was more interaction in the class than here. Here it seems that the only way is to study on your own."

Ironically, while lecture notes were preferred by students, they felt that lectures were confusing, as demonstrated by the following remark:

> "…they will be given assignments and be guided (step by step) on how to do it and other ways that will help you learn or study better and then attend lectures, however, I realised that you do most of the things on your own and attend lectures; but even if one decides not to attend that is your own look out."

To illustrate the above discussion, the following synopsis gives an overview of the preferred mode of learning for students.

6.5.2.3 Most successful Teaching method

6.5.2.3.1 Tutorials

Tutorials were the most preferred teaching method because of the one-on-one contact with tutors. To underscore the importance of the tutorial mode one participant said:

> "According to me I will suggest that if you are being taught as if like you are attend tuts (tutorials) because you are only few students around 20 or 30, you can grasp all information that the tutor is telling you, you can just get all the information, but if you just go with a thousand students and then the lecturer just highlights, and then when you are alone in your room trying to understand all that information; and you must still write the tutorial at the end of the day. Thus, you end up writing what you do not know."

> "Tutorials were good, and lectures worked less successful [for me]. I can Google some of the things. I don't understand the way they (lecturers) do things/why don't they say go and read page so and so/I thought they would give us summaries (chapters). However, one will just bring a textbook and read from … we can do those ourselves."

6.5.2.3.2 Study group discussions

Study group discussions were preferred because they helped students from disadvantaged schools catch up where they did not comprehend something from the lecture. Some students had problems understanding lecturers because of language (the lecturer 'rolling his tongue', or simply for conceptual reasons).

Two issues need to be raised concerning study groups. First, a word of caution: "choose the right people for your group". Second is the problem of students in the same study group yet staying 'poles' apart in on-campus and off-campus residences, particularly in town.

One participant remarked that:

> "… At UCT, for example, students attend one lecture and after that go for tutorials and then after that they go for study groups for one subject a day. I think that strategy is very good because you know that on this day you are going to attend Accounting for an example, and you are able to prepare yourself; read a chapter before the lecture and if the lecture (lecturer) addresses issues in that chapter you are able to grasp more information … this how I want to be taught."

> "…I expected that if you did not understand something during the lecture you will be allowed to ask questions. However, what transpired is that after the lecture session, the lecturer disappears from the scene without entertaining any questions."

Teaching practices in the lecture halls matter. This said if the higher education system acknowledges students as important stakeholders, then student appraisals of how curriculum material is organised, delivered and explained by educators is important. As noted, the preference for a tutorial mode of curriculum delivery could be attributed to the fact that students are nostalgic about their school system, where classes were smaller, and this allowed interaction between students and Zulu-speaking educators and amongst students themselves. On the other hand, it could be that it was efficient in terms of helping students understand subject matter. While the way in which the material was organised and how the lecturers explained and reviewed subject matter are important, student learning involves a gamut of other factors such as self-efficacy, locus of control and other abilities. Further research could be done to establish these relationships. This is also in view of the fact that it is not clear quantitatively how small classes could benefit these students.

6.5.2.4 Social Learning

A number of survival and coping strategies were advanced by the participants based on the nature of the problem. For academic-related difficulties some students formed study groups as coping strategies. In the study groups, they revised past examination papers (especially in courses like economics). There is an emphatic "but: 'Chose the right people to be in your group'". Some were advised or obliged to attend student counselling workshops for 'treatment' and advice on time management.

> "I have been trying to the best of my ability to fight against (the difficulties), however, it was not an easy task for me. But now I could feel that I was not coping by the look of things. When things got this far I realised that I have to go for counselling, and that is where I found help."

> "…I communicated with people [who] knew how to do it and I asked them then they helped but also being able to attend the workshop that was conducted by other organisations because there are also organisations for students I was also exposed to the organisation and I also joined and then I got to know other things how other things functions here in this university so it helped me a lot like self-confidence and I joined Black Management Forum and also I was in the programme of the EMS in

> management studies also so those programmes actually gave me right information, gave me a lot of back, gave me a lot of how to do it… ."

Some made use of student counselling services available within the university:

> *"Ya, yiku-attenda ama-workshops…kukhona ama-workshops abawa-offerishayo lapho oku-mananjwa umsebenzi omningi nges'khathi esincane."*
>
> Translation:
>
> "Yes, attending workshops... there were workshops [that were run by student counselling] where they offer short term course on managing or dealing with huge amount of working on limited timeframes or time constraints."

Students from disadvantaged schools also joined mentorship programmes.

Social capital theories elevate student support services as one of the most important in terms of both social and academic integration. It is not just about the availability of student support services, but knowledge of and the accessibility of these facilities to disadvantaged students (see table 1 in section 1.6.2 social capital; see also Jones et al., 2008). Thus, student services should be a vanguard of the social and academic and intellectual development of these students.

6.5.2.5 Friends for academic purposes

When a student lands in trouble, whether academically or financially, they not only need their brains but also the 'social' and the 'spiritual' that will provide a congenial environment. When students reach a 'cul-de-sac' or are at their wits' end, they find solace in friends. The participants said that friends ameliorate hardships whether academic or financial. One of the students alluded to the fact that talking to friends and people close to her was better than trying to phone your parents who are miles away. You can socialise with friends and share your problems with them.

> "It is all about joining group studies (study groups) with friends and we were able to elaborate few ideas, sharing ideas with each other and then they taught me and helped me understand where I did not understand a concept during a lecture. There is no other option except to join these study groups."

Socialising and interacting with other people (2nd, 3rd years) with experience of university life provides direction on how they managed to navigate successfully from first year:

> "I think it was important that I socialise with people so that they can help me academically and then socialise so that I can be able to live with other people and to solicit for advice from people that are already more advanced or ahead of me and have had some experience about life at university especially those who in 2nd, and 3rd year. From their experiences I can learn how they actual navigated successful their successive levels."

Rather than looking to their parents for this kind of support, the students relied on their parents mainly for mundane things such as money and food. This is not surprising, as most parents of students from disadvantaged schools have low literacy levels.

Survival at university for disadvantaged students required both formal and informal activities, including staff/student exchanges. For both academic and economic purposes, students relied extensively on social networks such friendship. Friendship acted as social wealth, resulting in both economic and academic benefits for survival and academic progression at university.

6.5.2.6 Some of the things that they liked at the University

Almost all the respondents were impressed by the bountiful resources at UKZN. The resources were not only bountiful, but also accessible because they were located within the university, especially for those who stayed at on-campus residences.

> "There are a number of things that I can say I liked about this university such as having access to Internet, Yah; most of the time most of the (academic) material that we needed were accessible such as libraries… we did not struggle when we had to submit an essay so things were made easier for us to do our academic work."

> *"Engingakusho izinto engizithandile…yikuthi ngifunde okukhulu ebantwini beside ukufunda lokhu oku-academical abakhona aba-around la ngoba umuntu nomuntu ebengihlangana naye bengifunda something kuyena e-unique ngaye noma nje engifundisa okuningi ngaye noma nje engifundisa okuningi ngabantu…"*

> Translation:

> "What I can say about things that I have liked in this university is that I have learnt very important lessons from people around me beside just academic stuff, because from each and every person I have met I have learnt unique things about them...."

While disadvantaged students encountered difficulties at university, the physical and material infrastructure enhanced their academic life. Some of these assets include access to the Internet and good libraries. It was noted that student livelihoods could be enhanced by having wireless Internet connections in off-campus residences.

6.6 Livelihood Assets Associated with Financial Capital at University

6.6.1 Financial Issues

> "The problem with financial aid is that NSFAS will promise to transfer money into your accounts on particular dates and they will not honour to that; and that meant that you are struggling for sometime before they do that, and these are the perennial problems that you encounter at first year level of university studies."

> "By the time one receives the money from NSFAS you already have spending plans 1, 2, 3 and 5 for it. Again when you have it, you easily spend it all because it is too little, just R500 per month. If you can't make a budget it is because it is meagre. By the next month end you have got nothing left. This vicious circle continues because it is a morsel. But now that I'm not using NSFAS, I'm getting money from home… they assist or support me financially. The R500 is too insufficient, it's nothing – books are expensive, for four modules, each book cost R300 plus something. However, if just for meals alone, it should be sufficient, it should suffice and cover up everything you need, but then you do not only need meals alone, but that students need this and that; for instance, somebody will need clothes not just ordinary clothes but designer clothes which are very expensive (*ukugqoka lokhu kwezimanga kubiza imali*); moreover, others have genuine needs like they were not given clothes from home to wear at university (*omunye akazange anikwe impahla*)."

For some time now, NSFAS has been dogged by administrative problems. These cause delays in processing student allowances. The problems have been also acknowledged by NSFAS authorities and by reports from the Ministry of Higher Education and Training (see chapter two). However, students compound the problems when they apply very late and then expect a miracle overnight. The second issue is the meagreness of the financial aid allowance. The reason for this is that NSFAS allocations are thinly spread across a large number of students. However, NSFAS is the only single scheme that can tackle student poverty at university.

6.6.2 Budgeting

Most of these participants said that that they did not draw up a formal budget when they received their allowances from NSFAS or any other source. One fourth year student argued:

> "I do not budget; I just know I need this and that ... I mean I stay alone. However, I do budget."
>
> "Well not to lie to you I don't [budget]."

One of the reasons for not drawing up a budget is that the money is just a pittance.

When asked if they had stuck to their initial budgets, all the participants conceded that they had overshot their budgets, except one first-year student who did not have financial aid. The reasons related to sundries, being influenced by friends or just being attracted to something else while doing one's shopping, and buying clothes from the NSFAS allowance allotted for food and books:

> "I do overshoot my budget because of things like airtime and clothes, shoes, maybe the one that I currently have is getting worn out, so I have to see that from the R500 I get one of these items and grocery included."

There were, however, other problems associated with NSFAS. Some students reported that they stress about NSFAS money and not having money in general because, besides being a pittance, the money is released very late.

Budgeting the 'unbudgetable' aside, the following issues with NSFAS were raised by students from disadvantaged schools:

- Communication about NSFAS be done at high Schools
- Money is not sufficient to buy groceries:

> "The R500 for meals is enough, however, given the fact that the one for books is not sufficient you end up deducting some money for books from it and then you are sacrificing part of the grocery for which is supposed to last for a month."
>
> "Not at all because it doesn't even cover basic food like meat, fruit, for instance. The R500 you get for grocery, you also have to print, photocopy, and use it for transport."

> Thus, you have to cut on grocery in order to accommodate some of the above sundries related to academic purpose."[23]

- NSFAS money not adequate for transport/books:

> "NSFAS money not sufficient – it can only buy food. R1000 for books is not enough – it can only buy one text book and just get some change…"

Quizzed by the researcher what they see as a sufficient NSFAS allocation, they made the following submissions:

> "Sufficient will be R1500 per month."
>
> "Hm... I can say for textbooks, they should give each student in the first semester R2500 for book allowance and then in the second semester anotherR2500 for books. And for meals, I suggest that R1000 a month it will be good because this R1000 you must be able to deduct it if you must buy the credit point to print notes. Maybe you can use R200 per month for the entire subject for printing and all this R800 you can use it, even though the R1000 is not enough but it is reasonable, you can make a grocery of R700 and you are just left with R100 for the bus fare."

What should NSFAS include that is not currently covered by the scheme?

> *"Mhlampe ama-fees bangazama ukuthi bawakhave (cover or include). Ngesinye isikhathi ufica ukuthi ama-results azobanjelwa into encane obungayinakile wena, bese uthola ukuthi ama-fees akho asabanjiwe."*
>
> Translation:
>
> "They [NSFAS] should include fees, because at times you find that you results cannot be released to you because you owe some (smallanyana) fees on your account."

While there is concurrence amongst higher education stakeholders including students that the NSFAS allowance is inadequate, I do not agree that it is 'unbudgetable' as the findings of this study suggest. Disadvantaged and other students tend to see budgeting and saving as something for parents and guardians. The problem is that students from disadvantaged backgrounds lack social capital in terms of educated parents, although there may be role models in their communities who could pass on such knowledge. Another problem with

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[23] See Appendix C for an estimate of Book costs for Selected Degree Programmes per Annum as prescribed by the university.

financial aid is located at the economic sphere of the creation of social capital for disadvantaged students, which relates to marketing the NSFAS scheme to schools in rural areas. It appears that publicity about NSFAS is limited to urban areas, and schools with teachers who were beneficiaries of the scheme when they were studying. In the final analysis, student support services have to identify some of these issues and come to the party.

6.7 Livelihood Outcomes

6.7.1 Career Paths of Students from Disadvantaged Schools

As shown in chapter 5, disadvantaged students were spread across the university's Faculties. The participants revealed their career aspirations:

> "I will study BCom honours because my dream is to become a chartered accountant (CA) so I am supposed to study for honours and if I pass the honours I will do in-service training for three years and write board exams, ok my dream will be reached."

A first-year geology student had this to say about her career aspirations:

> "It is important, I have to give an example of a house or a bridge that it is crucial that it is built on strong and stable ground because for us people it has to be a permanent structure (nonetheless, it cannot be permanent) however it has to be stable and sustain people's lives, especially building a house is an investment, suddenly it could be painful say for instance during earthquakes or mass movements and it collapses, and that would be amount to a great loss."

> "I want to do a Masters degree and become a director in the banking industry".

> "I will start with internship because I want to cool off. I will go and work to get some experience and then come back (to study further at university)."

With the exception of the career path of chartered accountant, the other six students abandoned their initial career based on their 'imputed learning ability' or because they did not secure a place for their first choice of career. One disgruntled first-year participant felt that he was forced to abandon his initial degree of choice by the university authorities. He said that:

> "Hmm! As I have mentioned this earlier on that so far there is nothing in my mind/ you see this 'thing' (the degree) that I am currently doing I am just doing for the sake of it. I am trying with the best of my ability to complete it so that I can graduate. What happens after that there is nothing in my mind so far. It will be a façade if I say this is what I will do after completing this degree."

Three of the study participants were prepared to work in rural areas for the purposes of developing KwaZulu-Natal; and work with communities in their different fields. With the emphasis placed by South African President Jacob Zuma's administration on rural development, the participants noted that they could work in the rural areas if decent jobs were on offer. However, one participant questioned whether this would be the case:

> "Currently, the positioning of South Africa, there are limited chances that one can work in rural areas, however, I would love to work at metros around the country."

Another acknowledged certain political dynamics that could facilitate his working in rural areas:

> "However, given the emphasis by the Zuma Administration on rural development three could be opportunities to work in rural areas and public finance involved. And this will help me mobilise our society towards development."

However, some preferred to work in big cities such as Johannesburg. A fourth year student said:

> "I will want to work in Johannesburg *ngoba* [because] I am familiar with the place and because there is a lot of money there."

It is commonly believed that students of low socio-economic status avoid careers in science and mathematics (refer to chapter two). Contrary to these beliefs, this study found that disadvantaged students pursued careers in science and accounting that the literature associated with high SES students. The odds thus are that if disadvantaged students managed to garner enough NSC points to be eligible, and are given support, they can pursue the careers of their choice. However, the most important issue is whether or not they reach the exit point, graduation. A number of low quintile students have moved from the programmes they initially registered for because they could not cope.

6.7.2 Uplifting my community

The following passages reflect how students from disadvantaged background envisage helping their immediate communities:

> "I will encourage them to get educated and show them the importance of education, because there are a number of young people from my community who are still at

> school, while intelligent they are doing a lot of crime or rowdy things; they are capable of excelling and showcase their different talents, however the environment is influencing them in the wrong direction … But if I have succeeded and am now educated they will listen to me and I will be able to change the environment."
>
> "For my community, I will create an orphanage and hire people that will guide or take care of them; and motivate them to acquire education. And to achieve this I have to bring on board certain [government] departments such education."
>
> "For my community I want to be a role model by attaining a university degree. Help mobilise resources for under-resourced high schools (in acquiring resources that they need); connect high school learners and how to apply to university; organise career guidance workshops to schools."
>
> "To my community there is a lot because at this moment we are the only three guys studying at university, it's just for the first time, most students drop out at high school, and they will be surprised if they see us in this way, we passed our Matric and we are now at university. I think this will motivate them even those young people who are still at high school and at primary. My dream is to help change their attitude because they have this kind of attitude that the only person who can afford to study at university is a person who has money who is affording."

The impetus for disadvantaged students to uplift their immediate communities is predicated on identified needs. These needs are associated with an array of social capital such as career guidance. As role models they want to be agents of change in their communities.

6.7.3 Uplifting my Family

Almost all the participants felt obliged to do something to assist their immediate families after they have graduated:

> "I have to do a number of things for my family like building them a big house and also buy them a big car big enough for the whole family."
>
> "Since I come from a poor background; for my family I have this desire to bring about some change to lift it (*ngiyithuthukise*). Amongst my siblings I am the first to study at a university, and when they reach grade 12 I want to help them to come and study at a university/ and also that I can be able to take care of myself in terms of my needs."

In line with the analysis in this section, the participants possessed comprehensive information about the different needs of their families. Some could be genuine and some derivative, based on the theory of social comparisons where they have seen houses in affluent neighbourhoods and want to emulate this lifestyle.

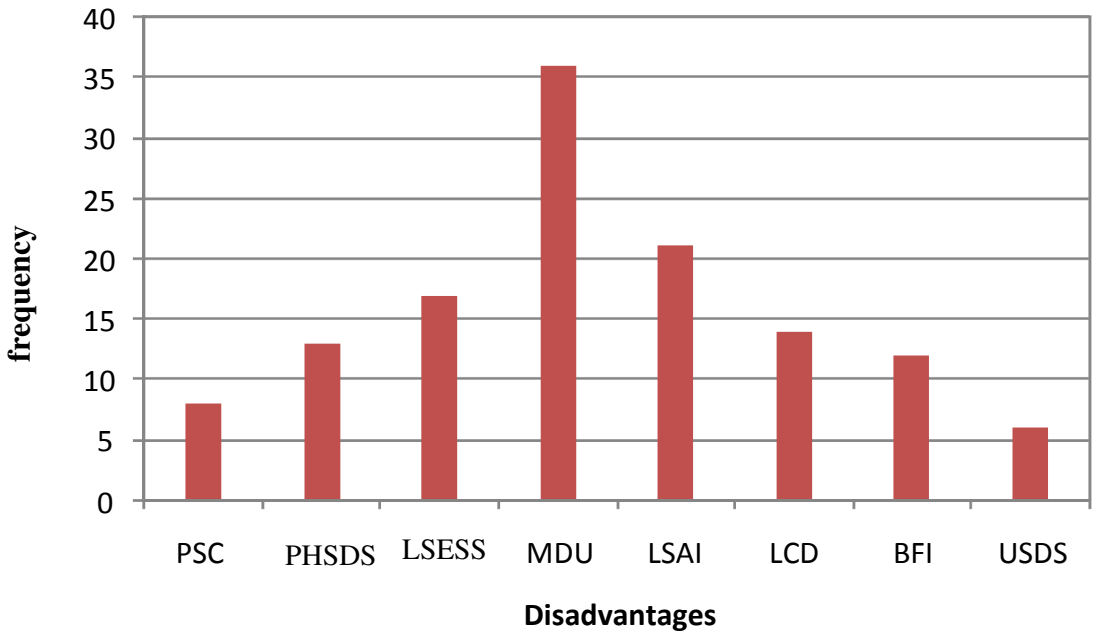
6.8 Conclusion

The two charts (figures 8 and 9) below summarise the issues faced by students from disadvantaged schools while pursuing their studies at university. The charts simply set out to plot the frequency distribution of each aspect of the analysis in this chapter, not individual interviews or cases; thus, the number of mentions of each factor in the analysis. The statistical analysis is displayed in tables in chapters 4 and 5. These contours were derived from NVIVO Matrices. A matrix is a collection of nodes resulting from a Matrix Coding Query. Matrix coding queries enable one to compare pairs of items and display the results in a table or matrix (QSR, 2009). This is an attempt to provide a graphical summary of the salient issues in this study.

Contours of Disadvantage

These nodes were generated by statements made by the students while describing their socio-economic and educational conditions prior to and during their studies. Of note in Figure 8 material deprivation at university is commented on most commonly.

Figure 8 Contours of Disadvantage



Key to Figure 8 above

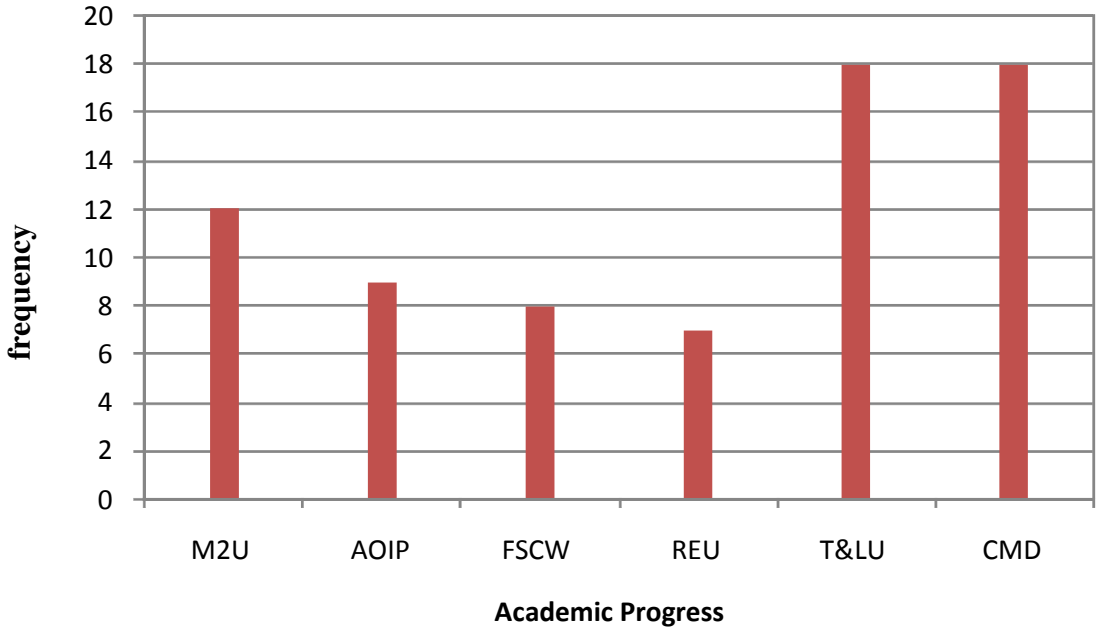
These are presenting issues faced by disadvantaged students from high school and university.

(PSC)	Poverty-stricken Communities of students from Disadvantaged schools
(LSESS)	Low Socio-economic status of schools
(PHSDS)	Poor Households of Students from Disadvantaged Students
(MDU)	Material deprivation at university - e.g. student poverty or food insecurity, accommodation problems
(LSAI)	Lack of Social and academic integration
(LC)	Language and Communication
(BFI)	Budgeting and financial illiteracy
(USDS)	Underpreparedness of students from disadvantaged schools

Contours of Academic Progress

Figure 9 below indicates the livelihoods assets, livelihood strategies and social capital utilised by low quintile students to offset shocks and vulnerabilities associated with contours of disadvantage in figure 8.

Figure 9 Contours of Academic Progress



Key to Figure 9 above

These constitute the social capital and assets and resources that were available to offset the shocks associated with the factors in figure 8 above and enhance student life at university.

(M2U)	Motivation to come to university - Creation of social capital at the social sphere: role played by teachers and parents. This also subsumes livelihood assets.
(AOIP)	Academic Orientation: Institutional Provision - As opposed to social orientation, this should focus on core academic issues such as modules. This subsumes the livelihood context in terms of the learning environment at university, thus, creating social capital at the academic sphere (see table 1).
(FSCW)	Friendship as Socio-cultural Wealth -This is what I call 'academic friendship' because it is a livelihood strategy at university adopted by low quintile students to facilitate academic progress.
(REU)	Resource Endowment at University - This refers mainly to pedagogical resources such as the Internet, LANS, and libraries which are up to date in terms of relevant books. This relates to the livelihood assets that facilitate student livelihoods in terms of academic progress.
(T&LU)	Teaching and learning at University; social learning - This refers to the teaching and learning styles preferred by low quintile students, such as study groups, and tutorials which are seminal or dialogic resembling the Socratic model. This subsumes the livelihood context (environment) that improves the academic progress of low quintile students.
(CMD)	Community Development - This pertains to career guidance at the school level that could help potential university recruits to gain knowledge about offerings at university; and also other programmes that can uplift their communities. This mode subsumes human capital in terms of livelihood assets.

The data presented in this chapter show that the study participants from disadvantaged schools who are studying at UKZN experienced a number of problems during their studies. To recap, chapter five did not yield a vast amount of data in terms of the positive relationship amongst SES variables, individual attributes and institutional characteristics, and academic progress. However, chapter four provided some rich statistical analysis of SES variables associated with the quintile system which influenced academic progress; my literature survey and current chapter demonstrate that most of the SES variables, individual attributes and institutional characteristics are associated with and/or co-occur with academic progress. Those who were struggling were likely to blame their incapacities on the university system and the academic staff. From the current analysis, this study shows that it was difficult for some students to admit that they did not have the ability to do certain courses.

CHAPTER SEVEN

CONCLUSION AND IMPLICATIONS FOR FURTHER RESEARCH

7.1 Introduction

The main objective of this study was to ascertain the perceptions and experiences of students from low quintile schools at UKZN regarding the influence of the socio-economic, material and learning environment and bio- variables (such as gender, quintile, and matric scores) on their academic progress (mean GPA, graduation, attrition rates). This chapter presents the conclusion and implications for further research arising from this study.

This study set to answer three key research questions, namely: (1) What are the contours of disadvantage that can be discovered through investigating samples of students from disadvantaged schools at UKZN? (2) How do the 'contours' co-occur with factors relating to academic progress? (3) What are the perceptions of students from low quintile schools at UKZN about their pre-university experience and the learning environment at university? To address these research questions a mixed methods research design was employed mainly for its flexibility and multiple entry (multiple level) approach to analysing social phenomena. The theoretical framework adopted in this study is premised on open-mindedness in examining the social phenomena under study. As such, the mixed methods research design employed in this study had to be liberal in order to allow multiple entry analysis of the phenomena. Multiple entry analysis simply means that a number of complementary methods and techniques are used to analyse and understand the phenomena at hand. The SLA-social capital and social justice framework was adopted due to its capacity to analyse the academic progress of students from low quintile schools by looking at the totality of their surroundings (livelihood context and social capital); livelihood assets and livelihood outcomes. Resources and livelihoods are interlinked and this relationship shapes the type and direction of outcomes resulting from interventions associated with social justice notions to address disadvantage.

The findings from this study are organised under the following themes based on my conceptual framework: Livelihood Context, Livelihood Assets and Livelihood Outcomes. The notion of social justice is mainly employed to draw implications from the findings.

7.2 Summary and Reflections from the Findings

The main objective of this study was to investigate the perceptions and experiences of disadvantaged students at UKZN regarding the influence of socio-economic variables, material circumstances and the learning environment on their academic progress. Arising out of this objective were specific aims, one of which was 'to analyse the relationship between socio-economic factors and the learning experiences of low quintile students at UKZN and the impact of variables identified in this study on academic progress'. The specific aims/or objectives of this study were: (1) To investigate data about disadvantaged students and their academic progress available from Student Management Systems (SMS); (2) To analyse the relationship between socio-economic factors and the learning experiences of disadvantaged students at UKZN; and (3) To analyse perceptions of disadvantaged students with regard to their pre-university experience and the learning at university. The findings of this study suggest that students from low quintile schools at UKZN tend to perform marginally if not poorly as discussed in chapter four (see tables 7b, 8b, 9b, 10b, 13b, 15c, 17c, 22b, 26b and 40), and take longer to graduate (refer to tables 31 and 32), fail and dropout (refer table 33 and figure 4 in chapter 4) compared to students from higher quintile schools. The reasons cited for this marginal or poor performance are school quintile (which measures the asset base) and the quality of the school, teachers, resources, and location and family background, mainly the absence of a father, but also the poor educational levels of parents (see also chapter six).

While much has been done to address problems faced by disadvantaged students in higher education institutions in South Africa, the studies by Scott *et al*. (2007), Jones *et al*. (2009) and Bawa (2000) revealed that a number of problems remain unresolved. Arising out of this study, several strategies have been identified to address the challenges faced by these students. These include social learning such as peer learning in groups, tutorials, academic orientation and academic mentoring and academic friendship (see figure 9, and results in chapter six).

The SLA-Social Capital-Social Justice framework was employed in this study (refer to chapter one). Despite the fact that these SLA theories have proven to be useful analytical tools, mainly in sociological studies (with the SLA approach having been applied mainly to poverty studies), they cannot be applied individually or separately within the field of higher

education hence my decision to integrate them into the SLA-Social Capital-Social Justice framework in this study. The study has analysed possible factors contributing to academic outcomes of students from low quintile schools at three points: pre-university (matric), during university (GPA) and exit point (graduation or dropout). These three points reflect the overall context around which student livelihoods (academic progress, activities and concomitant livelihood strategies) revolve. Based on this analysis, quintile, gender and Grade 12 (Matric) represent the livelihood assets at university, while income and the educational attainment of biological parents relate to livelihood assets at pre-university, which in turn influence the livelihood outcomes (academic progress – better Matric and GPA, graduation rates or absence of academic progress – failing courses, attrition rates). Interesting to note in this study is that the clearest results come from measuring assets to assets (quintiles to matric), assets to outcomes (quintiles/matric score to GPA), but not context to outcome as demonstrated in chapters four and five. For example, from the ODD Matric score was a strong predictor of GPA, and the odds that a student will progress to graduation.

A major thrust of this study was the relationship between GPA, matric score and school quintile. The major, and surprising, finding is that some low quintile students are achieving despite their social disadvantage. The implication is that the university is able to eradicate the effects of social disadvantage experienced by students. Thus, despite coming from a livelihood context of bigger families with a low family income, including a low social and human capital base they are progressing in some way. Explanatory variables for these students' achievement, though marginal, are attributed to personality traits such as commitment, personal determination and organisational issues (plan when to wake up if one lives at an off-campus residence and the like) and motivation from their uneducated parents and less qualified teachers to succeed against all odds. The problems analysed in chapter five, such as transport (walk to university), and staying off campus did not deter these students from performing well in terms of their GPAs (refer to table 40).

The implication for educational policy and practice is to work to improve the matric scores of students low quintile schools with a focus on reducing the SES imbalance embedded in the quintile factor in South African schools and subsequently, higher education institutions. This study adopted a multilevel framework that structured variance in student achievement into quintiles. Thus, student academic progress occurs between quintiles (comparisons of upper quintile students and low quintile students' academic progress as demonstrated in chapter

four), and also within quintiles (there are strugglers and non-strugglers within the low quintile students as is shown in chapter five). The quintile factor has an overall impact on the matric scores and GPA of students (see evidence in chapter four).

Livelihood strategies utilised to earn livelihoods for better livelihoods outcomes revolved around creating social capital at different spheres. In the academic sphere, the findings concern academic orientation, a preference for smaller learning groups (seminars) and problems with staff-student communication. In the social sphere, friendship was used by disadvantaged students for social and academic integration. At the economic sphere, disadvantaged students grapple with material poverty in terms of food insecurity, accommodation and access to pedagogical resources as a result of the meagre National Student Financial Aid Scheme (NSFAS) allocations and their disadvantaged backgrounds. With regard to the support sphere, orientation emerged as important. In the democratic sphere, it was found that the sampled students did not feel that structures like the Student Representative Council (SRC) meet their needs.

7.3 Livelihood Assets and Academic Progress at the University Stage

From the objective download data (ODD) first, the findings of this study reveal that gender was not a significant variable as far as the mean GPA of low quintile students was concerned for the cohort years 1994, 2004 and 2009. This was not the case for 1999 when the mean GPA for females was significantly greater than that for males (refer to table 5b in chapter four). The results for 1994, 2004, 2009 contrast with both the South African and international literature, which points to a relationship between gender and academic progress (see subsection 2.3.1 in chapter two).

Second, this study found that, in contrast to gender, the quintile factor was a strong predictor of academic progress for the cohort years 1994, 1999, 2004 and 2009 (refer to tables 7a, 8a, 9a and 10a). Quintile in the context of this study is multidimensional. In refers to embedded development indicators such as income, unemployment rate and level of education or functional literacy (see section 1.7.3 Deciles and Quintiles; Kanjee and Chudgar, 2009). Thus, the influence of quintile also subsumes the influence of these indicators on the academic progress of students from low quintile schools at university. Based on my

theoretical framework, coming from a low quintile background implies a low livelihood asset base in terms of financial resources and the educational level of parents and other caregivers which again relates to low SES. Low SES has been associated with low academic achievement by a number of scholars (see Gorard *et al*., 2008; Letseka et al., 2008; Cardak and Ryan, 2006). This study confirmed that the mean GPA of students increased as one moved up the quintile ladder.

Third, this study also revealed that quintile was an influential factor when it came to the matric scores of students (refer to tables 21a and 21b). Thus, there is an incremental effect on matric scores as one moves up the quintile ladder. The most plausible conclusion is that livelihood assets impact on student grades at school and university. This again resonates with both the South African and international literature which postulates that socio-economic status influences academic achievement (refer to chapter two section 2.4.1 and 2.4.2). The low quintile factor represents a low livelihood asset base in terms of material resources, financial and human capital (educated parents, community) for students from low quintile schools, and a high social capital base (livelihood assets) for upper quintile students in terms of resource endowment.

Fourth, when compared to quintile, the findings of this study reveal that matric score was a strong predictor of academic progress of students in all Faculties except Engineering (refer to tables 13a, 14a, 15a, 16a, 17a and 19a). This once again demonstrates that a student's asset base influences their academic achievement (see Letseka et al., 2008; Jones et al.' 2008). From an SLA perspective, matric refers to livelihood assets at university. The international literature has also shown that school background is associated with academic achievement (see section 2.4.1 School SES and Academic Progress). Thus, according to ODD university students who attended higher quintile schools performed in accordance with their Matric scores, which suggest a correlation between matric scores and GPA.

Fifth, this study found that the quintile factor was significantly related to mean GPA for most of Faculties in 2009 except for Humanities and Law (refer to tables 22a, 23a, 24a, 26a, 27a and 28a). One plausible conclusion is that (quality of) school and community background subsumed in the quintile factor follow students to university, and maybe other spheres of life (see Letseka et al., 2008; section 2.5.1, and 2.5.2 second paragraph in chapter two). Again, clearest results come from measuring assets (quintile) to outcomes (GPA). The implication is

that the university's admission policy should take students' livelihood asset base into consideration for access and equity purposes. The explanatory variables for this trend lay in the admission criteria for the two Faculties that did not follow the trend. The Faculty of Law assesses potential students on the basis of selection tests as well as their matric scores. In the Faculty of Humanities, various access programmes could be the explanation, as the required entrance points go down to 20/24 for extended programmes.

7.4 Livelihoods Outcomes at the University Stage

The findings from this study suggest that there was an association between quintile and graduation for the cohort years under study. The upper quintiles recorded higher graduation rates than lower quintiles for three-year programmes during the period under review (refer to table 31). This phenomenon is linked to the relationship between livelihood assets (low school SES because low financial capital) and academic achievement (GPA). The implication is that students from a high livelihood asset base (high SES background subsumed in quintile 4 and 5)) are more likely to persist and graduate on time than their counterparts from low asset base that is low SES categories subsumed in low quintile 1, 2 and 3(see section 2.5.2 1st paragraph). Further, from an SLA-social capital-social justice synthesis, the interconnectedness of resources or assets and livelihoods cannot be overstated. Omosa (2002) observed that "resources and livelihoods are inter-linked and this relationship determines the type and direction of outcomes". This is further substantiated by the international literature surveyed for this study; see for instance Ho (2003), in chapter two). Furthermore, resource endowments have been seen to be related to either persistence to graduation or risk to dropout. However, a modicum of caution needs to be exercised when explaining these results. It is important to consider a multiplicity of factors as well as such individual and institutional characteristics. This said, note however that quintile 1 in three year programmes (table 31) and quintile 2 in four year programmes (table 32) broke the norm of 'marginal' or poor performance associated with low quintiles. This observation attracts further investigation beyond the scope of this study related to the performance of students from low quintile schools, and reasons for these anomalies.

As with graduation rates, dropout rates were lower in upper quintile 5 students for three-year programmes (table 33), and the highest for lower quintiles 1 through 3 with quintile 2 recording the highest percentage of dropouts (table 33 and figure 4). The implication is that livelihood assets in terms of the quintile factor was more significantly related to the risk of dropping out (livelihood outcome) for lower quintile students than upper quintile ones. However, while students from low quintile schools may meet the minimum requirements for admission to university, the odds of not completing are higher than for upper quintile students. School and family SES embedded in the quintile factor dogs them from the point of entrance (and along the way) until the exit point (see Letseka et al., 2008; section 2.5.1in chapter two).

To proceed, failing a course is related to slow progress or failure to graduate. The reports of failure (chapter five) are in concurrence with the ODD in chapter four, buttressing the fact that students from low quintile schools perform marginally. From an SLA, failing a course reflects the vulnerability of some low quintile students to shocks and stresses (refer to chapter one section 1.6.1). Failing courses, the likelihood of dropout and slow progress to graduation in turn affects students in terms of debt accumulation when they finally graduate. In the final analysis, this risk-proneness of students from low quintile schools derives from the livelihood context (poverty of communities) and livelihood assets (quintile and matric). Institutional interventions to ameliorate this situation include the university creating social capital at the academic sphere (induction, learning skills, and formative assessment) and student support services sphere (relationships between staff and students); and more so dealing with the asset base associated with the twin of matric and quintile in order to improve outcomes (academic progress of low quintile students) (see Thomas, 2002 cited in chapter two specifically table 2).

7.5 Livelihood Assets Associated with Social and Human Capital and Academic Progress at University

The families of low quintiles students were relatively big. Ninety percent of low quintile students' households had four or more people dependent on the family's meagre income

(refer to table 43). Young adults from bigger, poorer families are less likely to attend university than their counterparts from smaller, richer families. The international literature substantiates this finding (see chapter two, section 2.4.2 Size of Household and University Attendance).

Further, there was a significant difference between the income levels of the households of those who were first-generation university participants and those who were not (see table 45). Those who were not first-generation came from higher income households. This raises the question of a student's livelihood context in terms of social background and how this context is related to low quintile students' academic progress. Their academic activities revolve around this context, whether implicitly or explicitly. This requires an examination of who owns what in order to facilitate their livelihoods (academic activities and student livelihood strategies to survive and those that facilitate learning) at university. The livelihood assets of low quintile students depict a low financial and social capital base. However, family income cannot be the single indicator of academic progress or university progression or persistence, as there is a gamut of other explanatory variables such as individual and institutional characteristics.

The findings of this study showed that there was no relationship between mean GPA and biological parents' (father and mother) educational attainment in 2008 and 2009 (tables 55, 56, 57 and 58). This implies, firstly, that parental educational attainment does not matter in terms of the academic progress of low quintile students. The results have been affected by the small size of the sample. However, this finding is not supported by most of the literature surveyed for this study. Many of the parents of the students surveyed for this study had low educational attainment and therefore could not get involved in their children's school or academic activities (see Desimone, 1999). However, surprisingly, the uneducated parents (especially mothers) of students from low quintile schools motivated (an asset from pre-university) them to pursue higher education (refer to chapter six). Furthermore, this resonates with Desimone's (1999) valuation that while a relationship exists between parental involvement and student success, however this does not mean that one variable cause the other. The plausible explanation for this variation lay in understanding country specific contexts when analysing such social phenomena.

Nevertheless, there is well established evidence in the sociological literature that parental educational attainment (especially the father's educational level) amounted to social capital which was associated with student academic achievement (see section 2.2.2.1 Educational level of Caregivers and Parents, chapter two). In this study I have also noted that the quintile (as noted earlier) represents livelihood assets. Therefore, I can infer that despite this study's finding that there is no relationship between parental education and academic progress, low quintile students lacked most of the livelihood assets mentioned above, however made modest academic progress.

This study revealed that the majority of the low quintile students surveyed lived with their grandparents (see table 52), who had low educational attainment; this means they had minimal involvement in the children's school and academic activities. This finding has two implications. Firstly, the livelihood context (at pre-university level) lacked cognitive and academic socialisation, which has repercussions for student academic and concomitant intellectual development. Secondly, there is a lack of livelihood assets in terms of social capital (low education attainment of caregivers), human capital (lack of knowledge and skills) and financial capital (grandparents who relied on the social security system which means a low income for their many dependents).

7.6 Livelihood Assets Associated with Financial Capital and Academic Progress at University

According to the results of this study financial aid was not related to students' academic progress at university (refer to tables 63 and 64). The implication is that UKZN has tried to level the playing field by providing low quintile students with financial aid. This opens access to higher education to the underprivileged. This is consistent with the SLA-social capital-social justice framework in the sense that financial aid was key to accessing other livelihood assets (such as books, food, and the like) including higher education itself. These results resonate with some of the South African and international literature, and also contradict with others. For instance, Leuven *et al*. (2006) maintained that financial rewards did not improve the achievements of low ability students (financial aid was not a significant variable for the academic progress of students from low quintile schools). Conversely,

Glocker's (2009) study found that financial aid influenced academic progress in terms of persistence to graduation or high risk to dropout (see Jones et al., 2008). Thus, increased financial aid expedited the time to graduation while fewer financial rewards for students led to a high risk of dropping out of university (see Letseka et al., 2008 cited in chapter two).

Increased financial aid (coupled with budgeting and saving) could prevent students from running out of money during examination periods. While this study revealed that running out of money during examinations was not related to mean GPA (see table 65), there is evidence that many students ran out money during this crucial period (refer to chapter six). However, the different conclusions about the effect of financial aid on GPA could be explained by the fact that there are a number of other factors that contribute to academic success.

7.7 Livelihood Context at University

This study found no association between residence accommodation and the mean GPA of students from low quintile schools (see table 73 and 74) with the implication that there is no need to build more residences on UKZN campuses as students can achieve even while living in poor off-campus residences. However, these results are not supported by the literature surveyed for this study. The international literature demonstrates that students who stayed in a campus residence were more likely to persist and finally graduate than students who did not (refer to section 2.6.1 Residence accommodation in chapter two). The residence characteristics seem to be an important factor. Those that are effective have been transformed into living learning centres (LLCs) that enhance the residence environment for educational purposes (see Pascarella and Terenzini, 2005 cited in chapter two). The literature findings were supported by the perceptions of the students surveyed (see section 5.7.1.1 in chapter five). On-campus residences were depicted as good because they promote an environment that is conducive to study.

From an SLA perspective residence accommodation, while subsuming an asset as physical capital, exhibits many other characteristics such as the context or the environment in which student livelihoods take place. This context is important to understand, as it captures the livelihoods of low quintile students.

This study found that whether a low quintile student walked or took a bus to university did not affect mean GPA (refer to tables 75 and 76). One implication of this finding is that the university does not need to arrange transport for students from low quintile schools. However, anecdotally the means of transport and time taken to reach the university have some implications for the student. Depending on the distance travelled to university, students who commute will have to consider the time they wake up to attend lectures. Commuting to and from university incurs a disadvantage in terms of the amount of time a student will spend in lectures, studying in the library or LAN and group study and other activities.

The other important fact pertaining to students from low quintile schools is that means of travel to and from university if they stay at home or far off campus is related to livelihood assets such as financial aid. Note that contexts and assets are interlinked and they determine the direction of the outcome (refer to section 1.6.1.3 Livelihood Assets in Chapter one). Travelling to and from the university will depend on affordability, which might prove to be a problem for low quintile students. The bus to off-campus university rented premises is free but if students hike other off-campus means then transport must be paid for. Students who lived off campus and travelled by bus to their individual residences complained about the inconveniences involved, which affected their academic schedules (see chapter six).

This study shows that more than the majority of low quintile students discussed their academic performance with friends (see table 69; and also table 72). Thus, student livelihoods in terms of academic progress lay in finding coping strategies for survival. Friendship constituted one of these strategies for students from low quintile schools. This was not just an ordinary friendship, but purposeful friendship for academic survival which I have termed ‘academic friendship’ (see also chapter six on this phenomenon). Friendship formed part of human capital in terms of acquiring skills that facilitate academic and intellectual development, and social capital with reference to social networks, which advance social integration (see section 1.6.2 Social capital and also table 2 some examples of social capital and benefits of social capital within higher education).

A lack of background knowledge was associated with mean GPAs for both 2008 and 2009 (refer to tables 79 and 80). A lack of background knowledge from an SLA and social capital perspective relates to lack of human capital (Chambers and Conway, 1998 and the creation of social capital at the academic sphere (refer to table 2 citing Thomas, 2002). In this case

human capital implies knowledge, skills and the ability to work. Thus, this study has shown that a lack of background knowledge about a subject was a problem for low quintile students (refer to chapter six). Again, this is linked to the quintile factor in the sense that it subsumes school and family SES. This background haunts students from low quintile schools at university and perhaps at the workplace. The implication for institutional policy is that measures should be put in place to mitigate the effect of SES on the academic performance of low quintile students. This analysis is actually important because it demonstrates significant role played by context in influencing livelihood outcomes (GPA). Thus, the implication for university policy is that social capital has to be created at the academic sphere in order for these students acquire knowledge about subject matter (refer to table 2 in chapter one).

7.8 Lived Experience, Learning Environment and Academic Progress

The analysis in this section and its subsequent subsections derives from interview explications in chapter six.

7.8.1 Livelihood Context: Pre-University

The majority of low quintile students came from families where the father was absent. Social capital theories and extant international literature surveyed in this study associate a father's presence with children's academic achievement (see section 2.2.2.1 Education Level of Caregivers and Parents in chapter two). This is related to support and material provisions. More importantly, the educational attainment of the father acts as social capital for children or students. The international literature has also shown that the daughters of educated and successful fathers are successful in their careers (see Marjoribanks, 1998 cited in chapter two). Given these valuations about the role of a father in the educational achievement of children, the reasons advanced by students from low quintile schools for their poor academic achievement cannot be overstated. The absence of a father is associated with a string of other problems, chief amongst which is poverty. Poverty is related to nutritional issues and has been shown to be related to students' academic progress (see chapter two on food insecurity).Thus, parental investment in terms of resources (cultural, material and educational) is imperative in the educational achievement of students and also later in life after graduation (see section 2.3.2 Material Conditions at Home in chapter two).

It should also be noted that the low educational levels of biological parents have a negative impact on students' academic achievement. This stems from a lack of cognitive and academic socialisation of children. Many students from low quintile schools lived with their grandparents, who also had low educational levels (refer to chapter five, table 52).

7.8.2 Livelihood Assets at University

The quintile factor is very important in this study and therefore needs to be revisited at this juncture. By definition and within the context of this study, it comprises three salient aspects, namely: income (which includes dependency ratio), unemployment rate, and level of education (functional literacy) [see section 1.7.3 Deciles and Quintiles in chapter one). This trio that describes the notion of quintile is important because it is also used to represent national development indicators. Low quintile schools had fewer resources (meaning a low livelihood asset base) which impacted on the quality of education that these schools could offer and student outcomes in terms of their Matric scores or grades at university (see section 2.5.2 Student Funding, University Attendance and Academic Progress in chapter two). Matric scores as an asset are the strongest predictor of the academic progress of students at university (see chapter four). The quintile factor in the context of this study implies a low social, human, and financial, and capital, base. Thus, from an SLA-social capital-social justice approach, students from low quintile schools have a lower asset base, which also relates to low SES. Low SES has been attributed to students' low academic achievement (see also section 2.5.2 in chapter two).

The quintile factor also subsumes and depicts **communities of low quintile students** in that when classifying schools into quintiles, the poverty of the community catchment area is important. This study has shown that communities of students from low quintiles were illiterate (see chapter six section **6.2.2 Communities of Students Coming from Disadvantaged Schools).** They were few educational role models. Studies have linked the educational levels of communities (competent societies of learned communities) with students' academic achievements (refer to chapter two).

Furthermore, the **household SES of** students from low quintile schools is subsumed in the quintile factor. This study found that the households of low quintile students had a low

income base, which compromised their livelihoods at home and university. Most of these households, as shown in chapter five, subsisted on social security grants and pensions. Low quintile students stayed with their grandparents. This meant a low asset (low financial capital) and human capital (lack of educated role models) base.

The livelihood context (family background, school quintile as SES) and livelihood assets (low financial base, low human capital base) affected the livelihood outcomes (academic progress, repeat years, and dropout) of students from low quintile schools (from the interview results, chapter six).

This study demonstrated that a majority of students from disadvantaged schools come to university with little money for subsistence before the NSFAS money is processed. Parents cannot afford even to offer pocket money and only provide money for transport and registration fees. Student poverty has been identified as a perennial problem for students from disadvantaged backgrounds (Nzimande, 2012; Letseka *et al*., 2008 in the South African context), and the root of all problems faced by students (Clarke, 2009, from a British perspective).

Participants in this study agreed that student poverty was a problem during crucial periods such as examinations (Munro et al., 2011cited in chapter two section 2.4.4; see also Jones et al., 2008). The link between poverty and academic progress (and/or attrition) cannot be downplayed. Thus, the material conditions of students which manifest in a variety of forms including student poverty (food insecurity and other material deprivation) are important determinants of student success or dropout (Letseka et al., 2008; Nzimande, 2012 on the South African context; Clarke, 2009, on the British experience). From an SLA approach, poverty abides at university because of the unsustainable livelihood asset base of low quintile students.

This study revealed that most students from disadvantaged schools do not draw up a formal budget. The reasons cited for this was that the allowance was so meagre as to render it ‘unbudgetable’. Based on the fact that South Africans in general do not save money and that drawing up a budget was akin to saving, low quintile students lacked social and human capital in terms of parents who could teach them how to budget and therefore save money and avoid running out of it during crucial periods such as examinations. Again, the question of the livelihood asset insinuates itself here. The livelihood asset at issue is related to the

context (that of family background) where families or guardians never drew up a formal budget. The other explanation for this tendency is that whereas modern literacy elevates written texts, traditional societies, especially African ones, uphold oral traditions, so budgeting may have been done in their heads. Nevertheless, the most plausible conclusion in this case is that the issue of not budgeting by students from low quintile schools could be due to a lack of social and human capital for the reason that their parents or caregivers or community were not educated. The implication for university or higher education policy is to create social capital at both the academic and economic spheres to harness social capital benefits for the concerned students (see table 2 or Thomas, 2002).

7.8.3 Livelihood Context at University

This study revealed that like NSFAS, the department of student housing (DOSH) was inefficient and badly managed. This evaluation is shared by the general student community, as evidenced by the strike led by the Student Representative Council (SRC) on 1 March 2011 where one of the demands was for more residences and wireless Internet access in residences (see also University of KwaZulu-Natal, 2009). It is important to consider the impact of residence life at UKZN from a student change or development perspective. The international literature (for instance in the US) found that students' academic performance (or progress) is not affected by the type of residence, nor did it have a significant impact on 1st-year academic performance (Lopez-Turley, 2010). However, intriguing in this study is that black students who lived on campus had considerably higher GPAs than similar students at the same institution who lived off campus with family (Lopez-Turley, 2010). My survey revealed no relationship between accommodation and the mean GPA of low quintile students. Explanatory variables could include motivation, commitment and organisational ability and hunger for success against all odds. Thus, the effort applied by these students could have outweighed the difficulties and poor background of students from low quintile schools.

The participants seemed to dislike lectures because they lacked engagement and collaboration. Language impeded communication. The participants felt that tutorials and group study were more 'user-friendly' curriculum delivery modes which facilitate constructive learning. My perspective is that seminars should be the defining and

distinguishing feature of the modern academy. Universities cannot claim to be centres of excellence and quality teaching in their absence. How do you foster or facilitate epistemic progress when the teaching process is not dialogic in the Socratic sense? In the absence of an ideal mode of delivery, peer tutoring and peer learning in small groups are alternatives. In the final analysis: What stops all disciplines from teaching in small tutorial groups? Should we be bold enough to put an end to lectures and let students rely on on-line material and textbooks for the background knowledge needed for tutorial engagement? Problem-based learning has been tried at UKZN's Medical School but they have since gone back to more lectures. The impediment in implementing problem-based learning is the costs involved in hiring or training extra tutors or teaching assistants.

Students' preference for lecture notes is a matter for concern. It seems that students prefer rote learning to deep learning. This is not surprising since the modern university employs test-based education as opposed to the Socratic seminar model. This is buttressed by the participants' affinity with past examination papers, especially in economics and subjects where multiple choice is widely used. The issues raised here prompt serious questions about good practice in undergraduate education.

The results of this study also showed that students' learning styles (section 6.8 Conclusion, key to figure 9) co-occurred with personal and contextual factors such as status (based on school background), academic discipline, and prior education. This finding is supported by Vermunt (2005), who asserted that students' learning patterns provide evidence to explain variations in their academic performance; hence my proposal on the customisation of learning. Transformation should focus on the 'context' in which learning takes place. Learning and teaching styles should promote deep learning which is associated with constructive thinking. This assertion is consistent with my theoretical framework which suggests that student needs can only be captured in their livelihood context, and in turn this context influences student livelihood outcomes (academic progress or dropout). However, the interview data probed students' learning styles but did not properly research educational factors such as curriculum, therefore it is difficult to make concrete conclusion.

Language emerged as one of the most densely contoured disadvantages for first year students. There are three aspects related to language that require attention, namely:

- Lack of terminology or vocabulary: the issue of language is related to 'naming'. Thus, lack of vocabulary is tantamount to lack of knowledge; hence epistemic success is compromised. This resonates with the valuations of the literature survey in this study (see Cross and Johnson, 2008; Alexander, 1998).

- Syntax: this concerns grammar in language. This relates to sentence construction or sentence structure (the arrangement of and relationships among words, phrases, and clauses forming sentences). In simple terms it is how words are put together in a sentence e.g. words like 'the', 'this' and cohesive markers etc.

- Sounds: This relates to the speed with which one pronounces words or speaks a language. How many people have said 'yes' to something that they have not understood because of being embarrassed to ask somebody to repeat the question?

If language is an important element of academic development and hence epistemic progress, these three aspects need to be considered by lecturers in their mode of delivering the curriculum in the classroom, and in their curriculum and choice of learning materials and activities.

My interviews revealed that using English as the only medium of instruction was an impediment to academic progress (both in terms of social and academic integration and intellectual development) of students from disadvantaged schools, and hence epistemic success of these students (see Cross and Johnson, 2008; Boughey, 2005; Alexander, 1998). Language was also a hindrance to Faculty and student collaborations or interactions which are regarded as important ingredients for academic progress and intellectual development (see Pascarella and Terenzini, 2005). Furthermore, as demonstrated by remarks made by the study participants, student-staff interactions have a positive impact on student success, while the absence of such interactions had a negative effect (see (Pascarella, 1984). Thus, remedial efforts should focus on these relationships to help students cope with existential realities while pursuing their studies.

7.8.4 Livelihood Strategies Adopted to Face Challenges at University

This study revealed that students viewed orientation as one of the most important programmes that could ameliorate some of the academic problems raised above. The problem with the current form of orientation is that it focuses more on the social aspects of university life, and does not help low quintile students in their academic work. This calls for a review of such programmes and their repackaging into a mix of social/leisure and academic orientation. The academic component would cover such issues as modules (because modularisation was also seen as a source of stress for students, see Clarke, 2009), and study skills. From a social capital perspective, academic orientation creates social capital at the academic sphere where students gain skills on a one-to-one basis. It involves induction – institutional knowledge and learning skills (see table 2 or Thomas, 2002).

Mentorship is an important ingredient in academic integration and intellectual development, with the overall purpose of improving the university teaching and learning environment for low quintile students. It serves two purposes: social and academic (and concomitant intellectual development) integration for disadvantaged students at university. From an SLA perspective the livelihood context is important because it could also act as a source of vulnerability (see section 1.6.1.2 The Livelihood Context); thus strategies such as mentoring mitigates against the risks of student repeating courses or dropping out. Cognizance has to be taken of the fact that earlier in chapter four I observed that students from low quintile schools are an at-risk group. Mentorship improves the social capital base of students from low quintile schools. Furthermore, mentoring could be useful in addressing other issues raised in this study, such as budgeting, residence life, sport, and writing skills, to mention but a few. However, it was not clear whether the study participants desired such services.

Social wealth, a term that I have coined derivatively from social capital for the purposes of articulating the productive base of all stock of usabilities at the disposal of members of society, communities, families and individuals, was lacking among the participants. Friendship was one of the most indispensable aspects of social wealth readily available to students when they were in need and far from home. Friendship facilitated social integration (peer influence,) and academic development (social learning in terms of peer learning, small

study groups, peer tutors), including intellectual development. Thus, friendship as social wealth has been utilised for academic purposes. Some students seem to learn more from their peers than in the classroom. This is called 'social learning' which is facilitated by student social teachers. There is a need for further research on how to integrate this type of learning into the mainstream academic programme. This could be promoted at residence level, a parallel of the LLCs described in chapter two. Thus, friendship means the creation of social capital at the social sphere (see Thomas, 2002 in table2) with benefits such as access to information ultimately social and academic integration into the university system.

7.8.5 Livelihood Outcomes and Career Maturity

In terms of their career choices disadvantaged students were spread across the disciplines offered at the university. According to Pascarella and Terenzini (2005), students become more mature, knowledgeable, and focused during the time at university in thinking about a career. Furthermore, educational outcomes such as acquiring a degree were related to economic, financial, material and social outcomes in terms of improving individual and family income and material circumstances. Thus, a degree was akin to social capital, a livelihood asset after graduation. The participants were not focussed solely on individual advancement, but desired the economic upliftment of their households and communities; they perceived themselves as agents of change playing a role in community development.

7.9 Towards Promoting a Better Learning Environment for Students from Low Quintile Schools

The overall purpose of this study was to analyse the perceptions and experiences of students from disadvantaged schools regarding their academic progress at UKZN. These perceptions and lived experiences were specifically about: (a) their learning environment; (b) their material circumstances while at university; and (c) their social circumstances while at university (see chapter one).

From the literature surveyed in this study, the higher education system in South Africa is still dogged by unresolved fundamental transformation issues (see Scott et al., 2007; Jones et al., 2008; Bawa, 2000). From this study, Matric and quintile (assets at university) stood out to be influential variables on GPA (an outcome at university). Figure 8 (in chapter six) illustrates the major contours of disadvantage revealed by this study in chapter six. The livelihoods strategies of low quintile students to support their academic progress included NSFAS allowances, social learning, tutorials, academic orientation and mentorship and friendship. These livelihoods strategies are merely for survival and in themselves do not seem to eliminate the SES imbalance revealed in this study that is currently embedded in the quintile factor. Taking these livelihoods strategies as their point of departure, higher education institutions need to create an environment where achieving a fair society – levelling disparities in school opportunities and outcomes–is made possible in South Africa. This will fit category three of Taylor's (2009) modified version of Nagel's (1973) taxonomy consisting of five affirmative-action categories (see chapter one). Based on the findings from this study, I provide a number of suggestions to address the condition of disadvantage.

First, Inkunzi Isematholeni (the bull is in the calves); and thus start with the school system. The quintile factor (low income base, unemployment rate, and functional literacy – see Kanjee and Chudgar, 2009; section 1.7.3 Deciles and Quintiles) begs attention. This study found that it is a strong predictor of matric scores as well as academic progress at university. Why is understanding the quintile factor important for UKZN and other higher education institutions? It has been noted that the quintile system is not perfect in identifying schools in terms of resource allocation (Kanjee and Chudger, 2009) and academic performance (based on this study), however, it is a critical variable in the classification of schools based on poverty indicators for the purposes of resource allocation. It is therefore important for higher education institutions to investigate the quintile system and make recommendations because they are on the receiving end of the school system. The quintile factor is about livelihood assets (resources, financial, physical, social – father's education, and human capital – teachers etc.), the livelihood context (school and SES imbalances, and the university learning environment), and livelihood outcomes (academic progress). It is widely acknowledged that the South African school system is dysfunctional, especially in the three provinces of KwaZulu-Natal, Limpopo and Eastern Cape (SABC *Asikhulume*, 2010; Mohlala, 2010).

Universities have always complained about the underpreparedness of students. To deal with underpreparedness, we have to start with the school system and maybe extend this to the pre-school level. Given this analysis, social capital should be created at different spheres to help the situation at the school level (see table 2 in chapter 1). The focus on the school system is based on the assertion that interventions at university level do not eradicate the SES imbalance associated with the quintile factor. Unless this happens, low quintile students will continue to perform just above 50% in their GPAs. This issue begs the attention of all concerned parties including parents, government, higher education institutions and students.

Second, provide food security for students from low quintile schools. According to Munro *et al*. (2011), a number of students at UKZN were susceptible to food insecurity (see chapter two). The most vulnerable were those receiving financial aid. This resonates with the findings of this study that the NSFAS allowance is a pittance (though useful to some extent). To ameliorate susceptibility to vulnerability, some have suggested 'unsustainable' food parcels during examinations; however, this study has shown that issues that relate to money and food are sensitive ones and therefore not all students will appreciate this kind of intervention. Human dignity is at stake, and if one loses one's dignity and self-esteem at university, where are you going to regain it? This said NSFAS remains the single solution. Study participants suggested that first-year students be provided with food; this would create social capital at the institutional level. A recent Ministerial Report by the Department of Higher Education and Training supports these findings, noting that although 41% of campuses had provision for dining halls, and 19% had both self-catering and dining halls, students still went for days without food (Nzimande, 2012).

To ameliorate the vulnerability of low quintile students to food insecurity a voucher system or meal cards should be (re)introduced for first years and sophomores. These would be tenable at supermarkets of their choice. This would take into account the cost of meals per day (two meals would be sufficient –breakfast and dinner). However, this system has to be monitored as it is prone to abuse (trading in vouchers) by the recipients, or the patron. This proposal is made in view of the finding of this study that students went hungry during examinations, and the fact that money was squandered on 'trivial' things, rather than food.

This institutional intervention will support category 3 of Taylor's notion of social justice, which focuses on compensating support: special training programmes, or financial backing.

Third, NSFAS should be reviewed to address critical needs of students from low quintile schools. The literature surveyed in this study revealed that an average student with poor financial endowments faces the highest dropout risk; however an increase in the amount of financial aid promotes the probability of graduating (Glocker, 2009; see also Letseka et al., 2008 on the South African experience). According to Tilak (2005) "the best method of financing education is financing by the State out of its tax and non-tax revenues". An income contingent loan scheme is the best option for the South African higher education system because it would to a greater extent remove a student's or household's ability to pay for university tuition fees from the entry decision (see also Cardak and Ryan 2007, who make the same point for the Australian higher education system). If there is evidence of unspent money in the bourse of NSFAS each financial year, then increasing financial aid to low income students is a plausible proposal (see also DoE, Ministerial Committee 2010 for further recommendations on how to improve service delivery at NSFAS). In the interim, NSFAS should formulate a marketing strategy for high schools especially in rural areas. Teachers are direct links to potential university students; they should be empowered to pass this information on to these learners.

Given the fact that universities are socialisation agents (homes away from home for students) akin to the family and other socialisation institutions, it follows that where there is an absence of resources, students' academic progress is compromised. This thinking is aligned to the notion that NSFAS is currently the only reasonable facility to ensure that some of the resources are catered for, while we rethink ways of addressing student poverty in higher education. Increasing financial aid to low income students is recommended by this researcher. An impetus for the proposed increase finds resonance in Rural Education Access Programme's (hereafter REAP) access package which seeks to supplement the NSFAS loan. The purpose of REAP's access package is to address disadvantaged students' most critical needs such as financial needs, facilitating registration, purchase of books and technical equipment, travel and meals/or accommodation and basic toiletries (see Jones et al., 2008). Thus, this increases assets for low quintile students so that they can compete more effectively

for university admission and pursue their studies unencumbered. At a theoretical level, this requires the deliberate creation of social capital at the economic sphere (refer to table 2 or Thomas, 2002). Unlike the emphasis on the creation of social capital at the economic sphere in table 2, the proposed model should focus on students from low quintile schools with an emphasis on increasing the financial aid available to them in order to eliminate the SES imbalance associated with the quintile factor.

Fourth, budgeting, that is teaching students basic personal financial management skills, should be prioritised, and needs incorporation into the mainstream curriculum at university. One of the findings of this study was that students lacked skills such as budgeting because of lack of social and human capital in the context of socialisation in low quintile families. The role of higher education institutions is to create social capital at both the academic and student support spheres (see Thomas, 2002). At the academic level induction for the purposes of acquiring institutional knowledge and personal skills is important for full integration. Becoming familiar with and applying budgeting principles will mean improved management of finances and therefore an improved livelihood lifestyle that is sustainable within limited financial resources.

Furthermore, departing from the premise that education is about facilitating epistemological access or epistemic success, at the academic sphere of social capital UKZN and other higher education institutions should promote an inclusive curriculum that grows rounded or t-shaped students and graduates. This means acquiring useful knowledge skills to carry on with their livelihoods and activities and strategies that sustain these livelihoods in terms of coping with shocks related to their finances, resulting in enhanced livelihoods in terms of their academic progress. Budgeting skills is a livelihood strategy that could help students have enough to eat throughout the semester.

With the broader picture of inclusive curriculum, good practice should encapsulate three proposals:

- make financial-literacy training mandatory by offering financial literacy courses: this should include a well-packaged and standardized personal financial management

pocket book or toolkit for students from disadvantaged backgrounds and the general student community (and staff if necessary);

- peer counsellors in free and confidential one-on-one sessions (see Supiano, 2008); and
- NSFAS should provide additional resources to train students on personal financial management.

These proposals are not farfetched given the fact that South Africans in general have a low savings rate (HSRC study on the middle class, 2008/9). This is illustrated by such television programmes such Dr Debt on the South African Broadcasting Corporation (hereafter SABC) channel 1, currently on air from 5:30 pm on Saturdays, March, 2012.

Fifth, Delivery (or Teaching) Modes of the Curriculum at University should be reformed if not transformed. While some higher education institutions may have good curricula, this is not enough. It is not the curriculum that is a problem, but what one does about the curriculum. This brings us to the methods adopted for delivering the curriculum to a diverse student population, including students from low quintile schools. One of the findings of this study was that lectures are not a popular method with students from low quintile schools (refer to section 7.8.3.2 on "Teaching and Learning Environment and Academic Progress", for reasons cited for disliking lectures as a method of teaching). This invokes the notion of good practices in undergraduate education for students from low quintile schools and the general student population.

Addressing this situation requires that higher education institutions create social capital at the student services/support sphere which advocates mentoring and staff-student collaborations (see Thomas, 2002). To put these processes into practice, IsiZulu speaking assistants need to be trained to help eliminate barriers to learning or epistemic access for students from disadvantaged backgrounds. They would be mentored by senior academic staff. However, this would be very costly.

Teaching, as a career in the field and not a career in the office, should be action-research-oriented and teaching practices should be evaluated both by lecturers as learners and teachers, and students as learners and teachers. The 'seminar' mode of delivery needs to be

resuscitated. However, this will be a very costly exercise in terms of employing tutors. The size of the seminars and the number of extra tutors to be employed would have to be determined.

The need for a seminar model is based on study participants' observations that there is currently no engagement, reflection, collaboration and caring in teaching and learning (compare with Langan *et al*., 2005). The undermining of the seminar in the modern academy has been described by Higgins (2007) as a product of the entrenchment in the academy (the university) of the notion of managerialism, with its emphasis on efficiency (which in the context of higher education means less teaching and learning, because value for money is prioritised at the expense of the core business of the university which is teaching, learning and research). While it is true that it would be difficult to raise additional funding for small tutorial classes, there is currently a propensity towards budgetary model which says 'let's do what we can as quick as possible with limited resources' negating quality in the long run. Small class learning programmes need not only monetary resources, but also political will amongst higher education leadership and long-term planning.

Sixth, professionalisation of lecturers should be mandatory across institutions of higher learning. Lecturers are not professionals guided by an Act of law under any statutory body like other professionals such as school teachers, psychologists, and medical doctors. They practice their careers based on the minimum requirements specified by the institution that employs them. They are self-regulatory agents (autonomous), and they are not accountable to a statutory body about how they practice their teaching in the lecture halls or auditoriums. While a plausible philosophy, self-regulation cannot be applied indiscriminately, especially when your subjects are human beings.

What informs university lecturers' teaching practices? If the assumption is that education seeks to develop the whole human being without impoverishing him/her, then the teacher has to grapple with the epistemological and ontological implications of the student body that s/he seeks to develop. This means that the teacher must understand the nature, realities and needs (the profile of the student body that the sector and each institution needs to cater effectively for, referred to in chapter one) of students from low quintile schools. Understanding these

epistemological/ontological implications means understanding three things about these students, namely: the livelihood context, livelihood assets and livelihood outcome.

The issue of the professionalisation of lecturers is about creating and upholding certain ethical valuations. This professionalisation of lecturers is a necessary step and a plausible proposition for higher education because the much talked about issues of standards and quality in higher education are measured not only by curriculum and conventional assessment methods but also by the quality of the mode of delivery in the classroom (the lectures in the auditoriums).This will mean acquiring new attitudes about learning which should include the value of the work experience, learning how to learn, and flexible opportunities for continuing professional development informed by the livelihood context (the nature of the student body), and livelihood assets (socio-economic realities, needs) which in turn influence livelihood outcomes (whole development - academic progress or impoverishment - the absence of academic progress. Refer to chapter one – significance of the study).

Concomitant with the professionalisation of lecturers academic tutors need to be put at the frontline of student support for a cohort of students to succeed in higher education. The participants in this study preferred the tutorial mode of delivery to lectures.

Furthermore, learning and teaching in tertiary institutions should be customised to suit individual preferences in learning and teaching. This should be evidence-based; thus for instance five different delivery methods could be piloted and students could choose between them.

Seventh, promote polyglotism in higher education institutions in South Africa. There is well established evidence on the relationship between mother tongue instruction and academic progress (Alexander, 1998 on the South African experience; Hornberger, 1987; Heugh, 1999 and UNDP, 2004, on the international experience respectively). A significant finding of this study was that language affected the students' ability to participate actively and effectively in classroom discussions (refer to chapter six). The issue of language relates to the learning environment and contexts in which low quintile students' livelihoods (academic progress or the absence of it) take place. Thus, good practice in teaching students

from low quintile schools lies in understanding the livelihood contexts in which teaching takes place.

Teaching disadvantaged students in English only denies diversity and access to higher education. It is noted in chapter two that research shows that if students are provided with access to the dominant language, you contribute to perpetuating and increasing its dominance (Cross and Johnson, 2008). This is precisely what is taking place in most South African higher education institutions. This literature further observed that if one continues to recognise the language of dominance one further perpetuates the marginalisation of those for whom it is not a home language, thus denying them access to the extensive resources available in that language (see also Janks, 2004; and Boughey, 2005, cited in chapter two emphasising epistemological access in higher education institutions). Teaching students from disadvantaged schools in English is justice denied; I view this as a form of discrimination which does not comply with fair formal equality of opportunity (FFOE) propounded in this study.

Denying students the right to learn in their mother tongue leads to them losing their identity; in turn, this could result in the underutilisation of their educational and human potential. This type of educational assimilation kills students' creativity, creating both educational and labour market' mimickers, or educated 'stooges'. UKZN, and other South African universities for that matter, have a well 'articulated' language policy, but what has UKZN done with it since its promulgation in 2006 to facilitate teaching and learning? To meet the criteria of FFOE higher education institutions need to provide extensive support in language development for almost half of their registered students (see Smetherham, 2009). However, like other proposals such as introducing problem-based learning and teaching the issue of providing support in language development requires additional monetary and human resources.

Language, like curriculum and teaching and learning is content-, and context,-specific. A student coming from a rural area who is introduced for the first time to a course like Actuarial Science will be bombarded with new terms such as 'cheque' or 'ledger book'. Some of the language used in a university curriculum is determined by the concepts and practices of the discipline. Students learn better when they can identify with content in a 'cultural', context specific way (see Gerdes, 1996 cited in chapter two). This kind of teaching is context

specific, and students can easily identify with because it facilitates learning. This could be useful in South Africa where students have been seen to be 'dunces' in such highly prioritised subjects as mathematics, actuarial science and other subjects requiring high levels of numeracy. Has teaching and learning in South Africa become dislocated from its socio-cultural contexts? This topic calls for further research.

Language as a barrier to learning and teaching will begin to diminish if the Minister of Higher Education and Training's recommendation (Requirement of Students learning one African language as a condition for graduating) is implemented. However, I suggest that the best place to start is at school level (the reasons for this are spelt out in the section on language above). The South African higher and basic education sectors need enforceable, or 'sanctionable' legislation on language which will make language policy a 'qualified' Act of law and therefore implementable. The Language Bill currently (2012) being proposed is a step in the right direction, however long overdue.

In the final analysis, any attempt to facilitate students' academic progress, particularly students from low quintile schools, should grapple with environmental influences both before and at University that foster or deter academic progress. To realistically facilitate the success of students in the modern academy we have to deal with social and economic inequalities (the environment) or the SES imbalance embedded in the quintile factor and matric results in our education system. As explained earlier, this study is conducted within a multiperspective framework of SLA-social capital-social justice framework with a methodology that enables both quantitative and qualitative analysis.

From the quantitative analysis (ODD), this study showed that the livelihood assets (quintiles, matric) matter in the academic progress (livelihood outcomes such as GPA or length of registration) of individual students (see chapter four).

Furthermore, from the survey sample, this study showed that some of the results were against my initial hypotheses about the University environmental factors that would influence academic progress. However, some of the frequency data (and the open section analysis of the questionnaire) is interesting in itself. For example, it showed that a majority of low quintile students were raised by grandparents, had many siblings, and their caregivers and biological parents had low level of education. At University some of the low quintile students go hungry during examination times.

From the interview data, this study revealed that some of the low quintile students are still battling with language barriers that are important to staff/student collaborations and learning in terms of a seminar. Fig 8 shows the extent to which contours of disadvantage still exist according to the perceptions of those interviewed in this study.

Therefore, livelihood strategies for promoting a better learning and university environment would encapsulate promoting social capital in five spheres as spelt out in table 2 in chapter one of this study, and a consideration of social justice discourse about university education based on Taylor's notion of Fair Equality of Opportunity (FEO).

Thus, to promote a better learning environment for low quintile students, the analytical approach in this study might heuristically teach us that students' livelihood outcomes such as academic progress are influenced by a complex interaction of the livelihood assets, livelihood context and livelihood strategies such as the creation of social capital at different spheres as spelt out in Table 2 and figure 9. This said, until disadvantaged students show academic progress that fits the norm, the contours of their disadvantage need to be continually investigated.

Despite the problems identified below with the study's research design, the appropriateness of the methodology finds its credibility in the triangulation employed in this study, that of between-methods triangulation, involving both quantitative and qualitative approaches (Denzin, 1978). Triangulation in this study was used at three levels: data triangulation (use of a variety of sources in a study – sources used were DIM – CHES data, a questionnaire survey and interviews), theory triangulation (use of multiple perspectives to interpret the results of a study – SLA, social capital, social justice synthesis and literature survey), and methodological triangulation (use of multiple methods to study a research problem – quantitative –survey and ODD, and qualitative – interviews). One of the challenges identified in the background and rationale of this study in chapter one was that understanding the profile of students in the higher education sector was important. Using a multilevel approach – within-low quintile component (analysis in chapter five) and between-quintile (chapter four), this study was able to present a profile of students in terms of their academic progress. In this way, the South African higher education system may begin to speak to the needs of ordinary people.

The challenges faced in carrying out this research pertained to the sampling design. For the analysis in chapter four, I initially used all the cases equalling 234 886 in the CHES dataset. I had to rethink this approach when I realised that all the results showed a significant relationship between variables (p-value=0.000), regardless of whether I had used chi square or Duncan's test (MRT). This is a major problem with large samples. To overcome this, the sample was adjusted through selecting a random sample of 10% of 234 886 only for quintile classified cases in the dataset. The main purpose of adjusting the sample size for chapter four was to obtain a certain level or degree of confidence for the analysis.

For the survey analysis presented in chapter five, two *inter alia* problems emerged, one at the data collection phase and the other at the analysis stage. At the data collection phase, the response rate was very low. Initially when I sent the questionnaire electronically to 144 students only four returned completed questionnaires. I resent the questionnaire four times to the other 140, but there was no response. The situation was worsened by the fact that this study dealt with sensitive issues such as student records of GPAs. At the data analysis level the problem encountered was that the sample was too small to be generalisable to the larger UKZN population of students. However, in instances where inferences were not possible, simple descriptive statistics were used, such as frequency distributions to determine the number of counts of variables (who or how many said what about a particular variable). I believe a relatively bigger sample will improve on the rigour of the analysis. Furthermore, a comparative survey of both low and upper quintile students on the socio-economic variables in chapter five could have provided a bigger picture of the perceptions of both groups of students and their experiences regarding academic progress.

For chapter six, my initial intention was to use a phenomenological approach as part of the research design. Instead guided interviews were used following the form of triangulation that was envisaged at the proposal stage, that of development (see chapter three). The interviews were guided by salient findings from the survey analysis presented in chapter five and the objective downloads data analysis in chapter four. Nevertheless, the study retains some phenomenological aspects because it managed to tape and capture the lived experience of students from disadvantaged schools based on the SLA approach, which focuses on the livelihoods of these students and the context in which such livelihoods take place.

7.10 Implications for Further research

The focus of this study was the academic progress of disadvantaged students at UKZN. Within its limitations it provided statistical analyses of GPA *versus* bio-variables such as quintile, matric scores, gender, and time measures variables (graduation and attrition rates) as presented in chapter four (ODD), and SES variables and academic performance of these students as presented in chapter five (RS).

This was followed by interviews focusing on low quintile students' experiences of pre-university and the learning environment at university. However, the RS did not show many significant relationships or correlations amongst various SES and institutional variables and academic performance or progress, because the sample size of the students who allowed access to their academic records was small. This shortfall was compensated by the ODD.

From the ODD analysis in chapter four we learned that the quintile factor is an important variable in terms of its impact on matric scores and then GPA. The two databases (DMI and CHES) need to be upgraded in terms of what data they collect. The DMI database should include the quintile variable because in it are imbedded other salient issues such as classism, the triple challenges of poverty, inequality and unemployment, and the level of education in the South African higher education landscape. Before the university decides to accept the quintile factor as one of the variables to be collected by the DMI, further research needs to be carried out to guide the improvement of the quintile system in terms of properly identifying schools based on both resource allocation (Kanje and Chudger, 2007) and academic progress (see chapters 4 and 5).

This study revealed that there was a strong relationship between quintile, matric score and GPA. However, this did not tell us which skills were acquired by low quintile students; further research could focus on the study skills acquired by tracking and analysing them. Is there a relationship between acquiring these study skills and the academic progress of low quintile students compared with upper quintile students? This would require a control group of non-university students with which to compare it.

Chapter four of this study provides quintile comparisons of outcomes (matric, GPA, graduation) of students from disadvantaged schools and those from higher SES schools (Model C in quintile 5) regarding their backgrounds and academic progress. What is needed,

in addition to this RS and ODD analysis, is a phenomenological research into the lived experiences of advantaged, quintile five students to compare with those of the lower quintile, disadvantaged students investigated in this study.

While this study did not focus on student organisations, its findings point to the role that these student bodies should play in the academic lives of students from an SLA-social capital-social justice perspective at the level of support services. Further research is suggested into the capacity of student leadership to effect change in students' academic progress. This should incorporate the academic progress of student leaders in dominant student bodies such as SASCO. Student organisations such as these should constitute social capital in terms of the creation of social capital at the democratic sphere and the concomitant benefits (refer to table 2).

This study was weak on the educational and learning processes, as it emphasised the socio-economic and material conditions of disadvantaged university students. Further research could be undertaken on strictly educational processes, based on the many questions pertaining to learning and teaching. Such research could be extended to cover curriculum questions, and surveys of teaching staff, using a methodology and conceptual framework based on educational theories of learning.

7.11 Conclusion

Jousse (2004:16) noted that "to be fit to guide the development of the whole human being, without impoverishing him, it is necessary that the teacher be experientially aware of all of the learner's anthropological 'potentialities', which seek to blossom forth. This is precisely the role of an educator: to make them blossom forth, to lead out from within". In order to "guide the development of the whole human being" one should understand their social, economic, material and cultural contexts (students from disadvantaged schools) who are the focus of this study; and also have a "close and comprehensive acquaintance with the environment" (Blumer, 1969) that these participants find themselves in (the university). In the final analysis, "to be experientially aware of all these students' anthropological 'potentialities' (academic progress or student success) which seek to blossom forth", one has to understand the 'lived experiences' (existential realities) of students from low quintile schools.

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APPENDIX A

Questionnaire for University of KwaZulu-Natal Students 2008

Instructions

Tick in the appropriate box, and write answers in the spaces provided. Should you need more space to write on, please feel free to use an extra sheet to express yourself.

Section A. Biographical Information

A1. Individual Student Data

1. What is your gender?

Male	
Female	

2. Which of the following type of accommodation do you live in?

Private Rented Accommodation	
University on-Campus Residence	
University off Campus Residence	
Family household/home	
Other (specify)	

3. Are you receiving financial aid?

Yes	
No	

4. What is the name of qualification you are studying towards or have just completed?

……

……

5. What is your major?

……

6. How many years have you been studying at tertiary level?

1 year	
2 years	
3 years	
4 years	
Other (specify)	

A2*: *Information about your family and family household

"Family household" means your home at the time when you studied for your matric".

7. Which older relatives lived in the same house as you when you were a teenager?

Grandfather	
Grandmother	
Father (biological)	
Mother (biological)	
Step Parent	
Aunt	
Uncle	
Cousin	
Older sibling	
Other	

8. Which of these relatives had tertiary education? (tertiary education is higher than NQF 4. It includes qualifications at University and technikons, and professional qualifications such as for nursing and teaching)

	Highest Qualification
Grandfather	
Grandmother	
Father (biological)	
Mother (biological)	
Step Parent	
Aunt	
Uncle	
Cousin	
Older sibling	
Other	

9. What is the highest educational level of biological parents?

	Mother	Father
Tertiary Qualification as above		
Senior Certificate		
Left School at Grade 12		
Left School at Grade 10 – 11		
Left School at Grade 8 – 9		
Left School at Grade 6 – 7		
Left School at Grade 4 – 5		
Did not complete primary		

10. Are you the first person in your family to study further than matric (grade 12?)

Yes	
No	

11. How many people get a regular monthly income in your family household?

1	
2	
3	
4	
5	
6 +	

12. Are you receiving money from your family or extended family?

Yes	
No	

13. Are you contributing to your family income? If yes state the amount

R

14. Does your family household have access to a regular supply of electricity at home?

Yes	
No	

Section B: Student income

15. Are you receiving money from any of the following sources? (You can tick more than one if relevant)

NSFAS Loans/Bursary	
University Scholarship	
Bank Loan	
Employer Provided Aid	
Received Work Study	
Other (specify)	

16. If yes, give amount

R

17. Are you earning money regularly?

Yes	
No	

18. If yes, what job are you doing?

Specify……

Section C: Your family household incomeSection B: Student income *A2*: *Information about your family and family household*

19. If you have made applications through the University Financial Aid office, do you consent to the data questions number to number being disclosed to the researcher?

Yes	
No	

20. Where does your family household income come from?

Salary	
Rent	
Pension	
Self-employed	
Child grant	
Foster care grant	
Disability grant	
Old Age grant	
Other (please specify)	

21. What is the combined household family income after tax including child grant?

Give Amount

R

22. How many people depend on this income?

Specify number in the in table below

1	
2	
3	
4	
5	
6	
Other (specify)	

23. How much is the family contribution towards your University expenses, including fees, accommodation, and your spending money?

Specify Amount

R

Section D: Your life at University

24. Would you say the place where you reside in term time is good for studying?

Explain?.....
.....
.....
.....
.....
.....
.....

25. How much money do you spend on average a day on food?

R10	
R15	
R20	
R30	
R40	
R50	
Other (Specify)	

26. How many regular meals do you have per day?

1 meal	
2 meals	
3 meals	
Other (specify)	

27. How often in a week do you have to skip a regular meal?

Once a week	
Twice a week	
Thrice a week	
Other (specify)	

28. What is the most common reason for you skipping a regular meal?

……

29. Where do you buy cooked food most often?

Campus Cafeteria	
Fast foods outlet	
Supermarket	
Street Vendors	
Other (specify)	

30. Do you cook in the residences (if you stay in residences specified in section A1 above)?

Yes	
No	

31. Where do you buy the ingredients from?

Campus shop	
Supermarket	
Spaza shops	
Street Vendors	
Other (specify)	

32. How much does it cost you to get to the shops to buy food?

R

33. Do you run out of money during examination time?

Yes	
No	

34. If you live off-campus (excluding off campus university residences) how far do you live from the university?

Live within 2km from university	
Live within 5km from university	
Live within 15km from university	
Live within 20km from university	
Other (specify)	

35. How do you travel to university?

Walk	
Bus	
Train	
Own transport	
Other (specify)	

36. If you have to travel to University, how much does it cost you to travel to university each day?

Give amount

R

Section F: Student Life

37. Are you currently having in a close sexual relationship?

Yes	
No	

38. Do you socialize with your friends mainly within the University campus or off-campus?

On Campus	
Off Campus	

39. How do you mostly spend your leisure time?

Dance	
Music/Concerts	
Sport/Gym	
Religion	
TV	
Shopping	
Cinema	
Other (specify)	

40. Do your friends have a good influence on you generally?

Always	
Mostly	
Sometimes	
Occasionally	
Never	

41. Do you discuss how you perform academically with your friends?

Always	
Mostly	
Sometimes	
Occasionally	
Never	

42. Do you think that the way you relate to your friends has an impact on how you perform academically (in class assignments, tests, and examinations)?

Always	
Mostly	
Sometimes	
Occasionally	
Never	

43. Further comments how your friends influence your studies

……
……
……
……
……

Section G: Academic Performance and Institutional Contexts

44. How would you describe your academic performance?

Excellent (above 75%)	
Good (60 – 74 %)	
Average (50 – 60 %)	
Struggling (40 – 49%)	
Failing (Below 40 %)	

45. If you have failed courses can you give reasons why (in up to 4 failed courses as below)

Failed Course give its name……………………...

Subject too Difficult	
Examinations too difficult	
Lecturers not helpful	
Did not study enough because of illness	
Other	

Failed Course give its name……………………...

Subject too Difficult	
Examinations too difficult	
Lecturers not helpful	
Did not study enough because of illness	
Other	

Failed Course give its name……………………...

Subject too Difficult	
Examinations too difficult	
Lecturers not helpful	
Did not study enough because of illness	
Other	

Failed Course give its name……………………...

Subject too Difficult	
Examinations too difficult	
Lecturers not helpful	
Did not study enough because of illness	
Other	

46. Have you experienced the following (a-k) at this institution:

a. Feeling overwhelmed by one's own ignorance

Always	
Mostly	
Sometimes	
Occasionally	
Never	

b. Lack of background knowledge of the subject

Always	
Mostly	
Sometimes	
Occasionally	
Never	

c. Feelings of inadequacy

Always	
Mostly	
Sometimes	
Occasionally	
Never	

d. Doubts about one's intellectual capacity

Always	
Mostly	
Sometimes	
Occasionally	
Never	

j. Little direction or help by staff on how to study

Always	
Mostly	
Sometimes	
Occasionally	
Never	

k. Feel unable to approach staff

Always	
Mostly	
Sometimes	
Occasionally	
Never	

51. If yes on all the aspects referred to above, where did you find help to get out of this situation?

Parent	
Siblings	
Friends	
University staff (lecturers, etc)	
Other (specify)	

47. Have you ever experienced the following difficulties (a-f) in your academic work:

a. Difficulties in understanding what staff require of students in any academic task such as in tutorials, practical work, written assignments, etc)

Always	
Mostly	
Sometimes	
Occasionally	
Never	

b. Have no idea how to tackle a long essay (choosing, researching, planning, organizing, selecting material, developing argument, writing, referencing)

Always	
Mostly	
Sometimes	
Occasionally	
Never	

c. Inability to use the library effectively

Always	
Mostly	
Sometimes	
Occasionally	
Never	

d. Overwhelmed by the amount of reading and complexity of reading material

Always	
Mostly	
Sometimes	
Occasionally	
Never	

e. Difficulties in understanding what lecturers are looking for in grading your academic work

Always	
Mostly	
Sometimes	
Occasionally	
Never	

f. Inadequate or highly critical feedback from staff

Always	
Mostly	
Sometimes	
Occasionally	
Never	

48. How many times have you experienced examination results that surprised you (tick in the table below)

Better than expected	
Worse than expected	

Section H: Students' Aspirations after graduation

49. What job do you plan to do after graduation?.....

50. Which province do you want to work in?

KwaZulu-Natal	
Gauteng	
Western Cape	
North West	
Mpumalanga	
Eastern Cape	
Limpopo	
Northern Cape	
Free State	

51. Do you hope that your work will be:

In a big city in South Africa	
In a township or location in South Africa	
In a small town in South Africa	
In an underdeveloped rural area in South Africa	
Overseas	
Other (specify)	

52. How often do you go to the underdeveloped rural areas of South Africa, including your home area if rural?

Once a week	
Once a month	
Once a year	
Never	

53. Do you participate in any community activities in your home area?

Always	
Mostly	
Sometimes	
Occasionally	
Never	

54. If yes, what kind of activities do you get involved in?

……

THE……END

APPENDIX B

Interview Schedule for University of KwaZulu-Natal Students Nov 2009

PhD Thesis

Pre-University Stage

Question 1

Let us begin by discussing your family background and also how this has had an impact on your academic progress. How would you describe the family where you come from? How would describe your family's material conditions from your school days till now?

Question 2

What motivated you to come to university? In your opinion who do you think influenced your decision to go to university?

Question 3

Let us now converse about your career aspirations. When you eventually decided to go to university, was this decision inspired by your future career aspirations? Tell us more about why you chose the degree that you are currently pursuing at UKZN.

Question 4

Let us discuss the conditions under which you studied at school and how this influenced or affected your academic progress then and now. In your opinion how do you think that your school background has had an impact on your academic progress at university?

First Year Experience at University

Question 5

Based on your experiences during your first year at university what was surprising?

Question 6

Give examples of some of difficulties that you have come across during this period of your university life.

Question 7

Assuming you experienced difficulties or problems we have already discussed in questions 5 and 6 above, how did you overcome them?

Question 8

Based on your experiences already discussed, what kind of advice would you give to new first year students?

Current Living/Material Conditions

Question 9

Let us discuss your current living or material conditions in this university. What are the things that you would say you like and also don't like (eating, sleep, LAN access etc.,) in this university?

Question 10

If you had run out of money during exams, what did you do?

Teaching/Learning Environment

Question 11

What were your expectations of how you would be taught and how you would learn at University? And how were these expectations fulfilled or not fulfilled?

Question 12

Which learning methods (e.g. lectures, lecture notes, textbooks, library use, internet etc) did you find worked best for you? And which were least successful?

Spending Habits

Question 13

In your opinion do you think the money that you receive from NSFAS for your subsistence is sufficient? Let us discuss further. If your take is that it is not adequate can you suggest what will be sufficient and why? What expenses does it NOT cover that you think it should cover?

Question 14

Do you make up a spending budget after you know what your income will be monthly? If so, are there items that you have found make you over-shoot your budget? How have you had to alter your budget expectations as you have gone through this recent academic year?

Career aspirations after graduation

Question 15

Assuming you are going to graduate what is it that you would like to pursue as a career? Discuss further

Question 16

And where would you want to work? Why would you want to work where you choose to work?

Question 17

I would like to ask you to dream and forecast how you want to help your family or your community where you come from after graduating from this university.

THE……END

APPENDIX C

Estimate of Book costs for Selected Degree Programmes per Annum

	First Year	2nd Year	
Degree	Cost per year	Cost per year	NSFAS Allocation per Annum
BCom Accounting	R2640	R2800	R1000
Pharmacy	R2000	R2750	R1000
Engineering	R4000	R4000	R1000
Computer Science	R600	R600	R1000
Social Work	R1800	R2100	R1000
Chemistry	R2100	R2350	R1000
Medicine	R3100	R3260	R1000
LLB	R1800	R2050	R1000
BED	R1600	R1900	R1000

Source: These are general estimates gathered from some of the Adams Bookshop Staff at selected UKZN campuses, 2010.