Bridging the gap between school and university: A case study of the University of Namibia's Access Programme

by

Gertrud Frindt

Thesis submitted in fulfillment of the requirements for the degree

Doctor Educationis

UNIVERSITY *of the*
WESTERN CAPE

in the

Faculty of Education

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Supervisor: Prof. Shirley Walters (Ph.D)
June 2002

Declaration

I declare that the doctoral thesis, *"Bridging the gap between school and university: a case study of the University of Namibia's access programme"* is my own work, that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

....
Gertrud Frindt   May 2002

UNIVERSITY *of the*
WESTERN CAPE

Dedication

This thesis is dedicated to my husband, Mat,

my three children, Stephen, Kathy, and Michael,

my grandson,

Adriaan,

and to my late parents

Dolly and Hendry Degè

Acknowledgements

*I thank the Lord, sustainer of life, for giving me **Job 11:13-19** to hold on to during the time of my study.*

"Yet if you devote your heart to Him

and stretch out your hands to Him,

if you put away the sin

that is in your hand

and allow no evil

to dwell in your tent,

then you will lift up your face

without shame;

you will stand firm

and without fear.

You will surely forget your trouble,

recalling it only

as waters gone by.

Life will be brighter than noonday,

and darkness

will become like morning.

You will be secure,

because there is hope;

you will look about you

and take your rest in safety.

You will lie down,

with no one to make you afraid,

and many will court your favour."

(7th September 1998).

My sincere gratitude goes to the following dear people who supported me in various ways throughout my time of study:

➤ Prof. Shirley Walters for her knowledgeable academic advice, motivation and supervision of the study.

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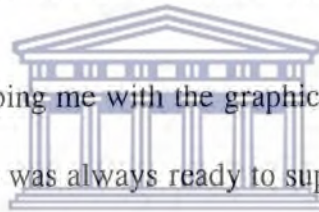
Abstract

Without neglecting the broader scope of the phenomenon of student access, this study focuses mainly on student academic access. An Access Programme, initiated by the University of Namibia, is used as a case study in order to gain a contextual understanding of such programmes, and to identify and critically analyse both those factors which contribute to its success and those which hinder it.

Theoretical perspectives on student access are provided in chapter 1. These shed some light on different notions of access, on the multiplicity of entry paths, on the various forms of access, the targets of access initiatives and the factors driving the need for widening access provision. Attention is also given to access barriers whereby alternative approaches and strategies to illuminate such barriers are provided.

Personal interviews, questionnaires, observations and statistical data on student enrolments and end-of-year results, contribute to a triangulation of research methods so that the situation can be viewed from more than one viewpoint by using both quantitative and qualitative data.

The study reveals that Access Programmes are increasingly recognized as necessary, and the need for them is likely to increase in future. Findings also reveal consensus on the need for epistemological access which places emphasis on learner success and throughput rates rather than access that is limited to admission and entry.

While the study is not an evaluation of the particular Access Programme, the study does contribute to understanding of what makes for an effective Access Programme within the Namibian context and beyond.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

*C*onsistent with the University of Namibia's mission statement, which states that it aims "To serve both urban and rural communities, and to provide extension services throughout the country with a view to contributing to the improved functioning of the education system as a whole" (UNAM Five year plan: 1992), the University of Namibia (UNAM) was urged by its Northern Campus Advisory Committee to implement an access programme in the northern part of the country. The programme was to focus on Mathematics and English for young school leavers whose International General Certificate of Secondary Education (IGCSE) results did not qualify them for entry into the University or the Polytechnic of Namibia. After careful consultation with higher officials at the Directorate of Education in Oshakati and with concerned people in the northern region, the University of Namibia introduced an access programme to prepare students to enter the Science Faculty. This programme was introduced in March 1999.

1.2 STATEMENT OF PROBLEM

Many students are under-prepared for tertiary education and this accounts for much of the failure rate of first year students. Although there are various programmes worldwide which address this problem, only one such programme has ever been implemented to assist under-prepared students in Namibia. This programme could assist Namibia to find ways of assisting its under-prepared students.

In the words of Bird (1996:9), "there is widespread recognition that access to higher education is something which should be widened, in particular to include groups who have not in the recent past successfully entered such institutions".

In 1999, after careful thought, the University of Namibia introduced an access programme to assist disadvantaged and under-prepared, unqualified school leavers from the Ondangwa East and Ondangwa West Education Regions.

The purpose of this research is thus to understand the UNAM Access Programme (UAP) within its context, and to identify and critically analyse factors which contribute to its success and those which hinder it, in order to draw conclusions and guidelines for general application in Namibia and elsewhere.

The problem questions that will be addressed are the following:

1. Why was the UAP established and what form has it taken?

2. What were the difficulties that students experienced in bridging the gap between school and university?

3. What educational objectives must be set to ensure that the majority of students succeed in the programme?

4. What were the successes and failures of UAP and why?

In order to deal with the above research questions, a set of secondary questions were posed which will support the main research issues.

Subsidiary questions:

- What factors have an influence on access demand?

- Through which access routes do students enter universities?

- What are the access barriers that face students?

1.3 SIGNIFICANCE OF THE STUDY

A lack of students in science, technology and engineering subjects and the under- representation of black students in these programmes is not only a Namibian phenomenon; this situation is common in most developing countries. The current position in Namibia is that school leavers who attain good results in general nevertheless experience problems in studying Mathamatics and English. Their problems may be viewed as having been caused by past educational deficiencies.

With the establishment of the UAP, it was hoped that the situation will improve. The programme provides a new opportunity for disadvantaged students within the Ondangwa East and Ondangwa West Education Regions, whose school leaving Mathematics and English marks in IGCSE failed to qualify them for entry into the University or Polytechnic of Namibia.

It is hoped that through this study factors contributing to the success or failure in correcting this imbalance through the UAP can be identified, and that generalizations can be drawn from this experience, which will assist educationalists to develop successful programmes in the future both in Namibia and elsewhere.

The research is unique in Namibia, since no similar research on access programmes has been done. In addition, because Access programmes are increasingly recognised as necessary and are likely to increase, this study can contribute to understanding access programmes and their effectiveness in general. It is hoped that this study can assist designers of future programmes.

1.4 CLARIFICATION OF CONCEPTS AND TERMS

The concepts and commonly utilized terminology with reference to access programmes are defined differently by different interest groups depending on purpose and situation:

"Politicians, academics and the public have defined student access in a number of ways, while some definitions having a broader scope than others" (Baker 1992:4).

1.4.1   Definitions of the concept access

Definitions of the concept "access" in the literature range from the very simple to the very complex. Many authors regard the concept as self-explanatory, merely referring to access as:

"an opportunity to acquire entrance qualifications usually for higher education;

the opportunity to acquire qualifications that are regarded as equivalent to recognised qualifications;

access to a particular course;

or

a second chance" (Jarvis 1990:110).

A more specific definition is provided in the British Further Education Unit's discussion document, *Access to Further and Higher Education* which states that the "basic characteristics of Access Courses are negotiated and guaranteed progression procedures on to specific courses at particular HE institutions, validation of courses by those HE institutions, and HE staff involvement in the teaching of Access courses." This definition is consistent with that used by other organisations in Britain. For instance, the *Forum for Access Studies* (FAST), a national body established to represent and promote access studies into higher education, defines access as 'an alternative entry into a range of higher education opportunities for mature students', which involves 'collaboration between adult, further and higher education' (Osborne & Woodrow 1989:5).

The South African Green Paper on Further Education and Training (1998) defines access as the "provision of entry points at appropriate levels of education and training for all prospective learners in a way which facilitates progression."

According to Walters (2001:5), the term access, as referred to in South Africa's National Plan for Higher Education (February 2001), entails the following:

> Participation rates regarding 'race', gender, class, creed, physical ability, and age, are concerned both with access and success of different students in a range of different fields of study. It is also concerned with redress of past inequalities through ensuring that staff and student profiles in higher education progressively reflect the demographic realities of the society. It also refers to 'economic access' through discussion of the financial aid schemes and 'epistemological access' through discussion of the needs for certain competencies and curricula orientations (Walters 2001:5).

1.4.2   Student access and equality

According to Baker (1992:4) access as equal educational opportunity means providing Black and other (disadvantaged) students with the opportunity of enrolling in all levels of post-secondary education. This concept is referred to in some literature as egalitarianism. Hall (1991:9) defines egalitarianism as a means of "fostering equality through inclusiveness and opportunity for all people". Maharasoa (2001:30) states that such a demand-driven approach actually forces universities to respond to the needs of the society without hesitation. It ties universities down to the responsibility of analyzing and providing for societal needs. (See also 3.2.4.)

1.4.3   Student access as persistence

The definition of access as persistence lends itself to the view that "opening the doors of higher education is only a small part of the process" (Bird 1996:9). The bigger challenge lies in the availability of support structures to encourage the retention of students. Persistence entails the opportunity of remaining in a university and obtaining a degree in a timely fashion (Baker 1992:4). The notion of persistence relates very closely to progression and throughput. Maharasoa (2001) is of the opinion that advocates of the progression viewpoint are interested in investigating the learner's progression over time. This includes progression at various levels and in various fields of study. The significance of this notion is that, while it is a component of access, it is also a criterion through which the quality of access can be measured

and validated. As Maharasoa (2001:31) says, "Does it really matter whether a learner enrolls with a university or not, if such a learner cannot make it through to completion of the programme? Universities must therefore aim at translating the cliché of opportunity for access into opportunity for success."

1.4.4   Student access and age

With reference to the university-going rate of age cohort, Williams (1997:29) states that academic traditionalists in Britain, who place an enormous emphasis upon the "gold standard" of A level points scores, refer to a student as being normal and acceptable, if he/she has undergone a quite particular form of academic socialization, designed for 16-18 year old students. A higher education institution can, on this basis, take for granted the preparation that the individual has received and build upon it. Such an elitist approach to access utilizes this criterion to gauge the "quality" of an institution and it refers to this age cohort as the traditional students.
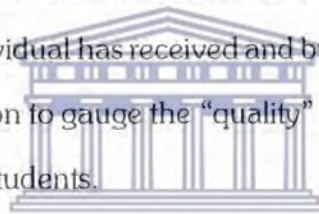
Exclusiveness underlies this viewpoint, particularly when one considers the plight of historically underserved learners who experience late entry into the education system, interrupted schooling due to lack of finance and other socio-economic factors, and finally graduate from high school when they are already older than the acceptable age for starting university education. In the South African higher education system, for example, the issue of age differences has been identified as a critical variable especially for first-time entering students (Letuka 2001:2).

1.4.5   Student access as transformation

Access as transformation borrows from the evolutionary perspective of access. Transformation and evolution suggest movement from one phase to another or from one era to another. At the heart of transformation lies the intention to change things, usually for the better. Maharasoa (2001:35) is of the opinion that student access is viewed as transformation if it is able to redress the discrepancies within an institution, resulting in equity. It is about affirmative

action, aiming as it were to bring on board those who, due to a history of being disadvantaged, have not had the opportunity to participate in higher education. In support of this argument, Van Niekerk (1999:6) observes that transformation "has to do with a global transition of universities from institutions that still cater for an intellectually elitist tradition of acquiring and producing knowledge, to people's institutions where technological skills and knowledge in the broadest sense are provided".

One way of providing more insight into the concept of student access is by studying the many forms which it takes. These forms are discussed below.

1.5 FORMS OF ACCESS

The different forms of access constitute among others, academic, financial, gender and geographical access. Although they can be discussed separately, it should be noted that all the forms of access are so intertwined that discussing one without touching to some degree on the other is almost impossible.

a)   Academic access

Academic access implies the ability of a higher education system to create an environment whereby learners can enroll in, persevere through, and graduate out of the various programmes and fields of study. Academic access is linked to the concept of access with success because, as Strydom (1998:4) points out, "barriers to effective access are not so much at the entry point… but in the throughput rate". This view is shared by the Technical Committee 2 (TC) in the National Commission of Higher Education (NCHE) (1996) which expressed the concern that if students are admitted into the system but are not able successfully to complete their studies, they have not, in fact, gained access. Lea and Street (1998:158) have identified how in the past, educational research into student learning in higher education has tended to fall into

two main areas: those informed by models based on the acquisition of core study skills and those which see learning as being concerned with academic socialization. They suggest that as a consequence two different models seem to have emerged in approaches to and research around student learning in general, and student writing in particular. The study skills model of writing focuses on "surface" features of language form in terms of grammar, punctuation, spelling etc. In this sense writing is considered a technical skill, the basic and generic features of which are seen as transferable from one context to another. This is being replaced increasingly by what they suggest is an "academic socialization" model of writing in which students are encouraged to learn the textual conventions of disciplinary discourses, the written genres, for example, "how to write in history". This approach appears to be based upon the assumption that language, and therefore writing, is a transparent medium of representation and that particular disciplinary forms are merely reflected in, rather than constructed by, written texts. Lea and Street point out that more recent research has begun to address the complexity of the academic literacy practices to which students are exposed within the university. They suggest therefore, a third model, that of "academic literacies", in which account is taken of the contested nature of academic writing in general and student writing in particular. (See 4.5.5)

b)   Financial access

Financial access is directly linked to the economic status of the learner. It underscores the learner's ability to pay for tuition and other relevant expenses, without which a learner might not gain access to higher education.

The increased application of compulsory school education and of equality of educational opportunity, the increasing need for skilled manpower and the overall desire for a good education has led to increasing enrolments in secondary schools and also at institutions

for tertiary education. Herman (1995:21) states that the increasing enrolments and increasing costs have had the effect of pushing policy-makers in tertiary education to demand stricter entrance requirements, particularly at universities where the costs per student are now very high and constantly increasing. He says that universities will thus have to take these economic realities into account in their planning. Regrettably, those worst hit are learners from the economically disadvantaged population groups. Morrow and Toni (2001:1) state that universities which are "sympathetic to the poverty of the communities from which many students come, and the decision to avoid financial exclusion, could find themselves on a slippery slope towards financial bankruptcy"

It becomes apparent, therefore, that financial access is interwoven with Academic Access because a lack of finance may inhibit inclusion in higher education.

c)   Gender access
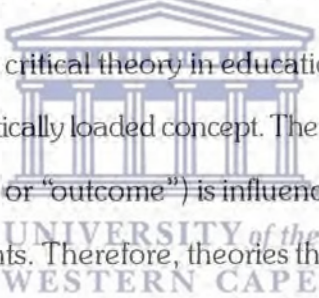
Education for women has been liberalized insofar as there has been considerable movement towards equal access to higher education (Habu 2000:45). This, according to Humphries (2000), was a reaction to the fact that women gained less access to higher education due to male prejudice, obligations in the domestic sphere, and limitations in financial resources. One of the benchmarks of success in access is the elimination of "all gender stereotyping in higher education, to consider gender aspects in different disciplines and to consolidate women's participation at all levels and in all disciplines, in which they are under-represented." To date, efforts to increase the participation rates of women in higher education have made an initial breakthrough. However, the monitoring and evaluation of gender access in a number of countries reveals the urgent need to recast the participation of women in the areas of Commerce and Science and Technology (Maharasoa 2001:38).

d)   Geographical access

The importance of geographical access is highlighted by Yorke (1999:111) who observes
that, on deciding to enroll for university education, "the student does not only choose
an institution; he or she chooses a geographical locality as well". In the past, however,
has been that universities were built outside the cities in secluded areas where learners
could not easily reach them. The critical question to ask is: What can be done to make
universities more accessible? Should more opportunities be provided for students to
lodge in campus residences, or should transportation be provided? Whatever the
solution, the availability of finances could still be an obstacle.

1.6 THEORETICAL AND CONCEPTUAL FRAMEWORK

If "access" is viewed from critical theory in education (Amukugo 1993; Boughney 2000),
then access becomes a politically loaded concept. The debate on the inequalities of educational
opportunities (in "access" or "outcome") is influenced by different theoretical perspectives
and ideological standpoints. Therefore, theories that attempt to explain the differences in
access, treatment or achievement in school should be regarded not just as a reflection of an
historical mixture of various theoretical and methodological principles, but also as a highly
elaborated reflection of certain political goals.

For example, according to the "genetic" or "bio-social" theories, "intelligence" and intelligence
differences are biologically "inherited" rather than socially determined factors, which affect
school achievement. The influence of the social environment is limited only to the extent to
which it can handicap a "bright" child who may not - under these external pressures - be
able to perform according to his/her potential (Jansen, 1969; Hernstein, 1973).

Amongst those theories that stress the importance of social and environmental factors on the
construction of each individual's experience, the Marxist tradition ("radical" theories) was

the most prominent in the international debates during the 1960s and 1970s. In those theories, the role of the school as a mechanism of social reproduction, through which the capitalist system transmits those norms and values necessary for its existence, was the centre of interest.

McGrath and Townsend (1996:214) argue that in the 1960s, the concept of compensatory education appeared likely to become the dominant paradigm for instructing students with academic deficiencies. By defining the education problem in terms of the social and cultural experience of students, advocates of compensatory education encouraged the redefinition of schools as social or community action agencies, rather than as educational institutions. Within higher education, the concept of remediation was much more attractive as it seemed to offer neutral scientific and technological categories in place of controversial cultural or political ones. As the language itself suggests, remediation works on a medical mode: a learner is evaluated like a patient to determine the effects of treatment (Clowes 1984:4). But according to Roueche (1968) and Cross (1976), critical examination of various remediation programmes from the perspective of educational effectiveness, revealed that remediation only helped those on the borderline of acceptable academic performance, and as Cross (1976:9) stated, "We have not found any magic key to equality of educational opportunity through remediation."

The advocates of educational effectiveness drew on one of the strands in the compensatory education movement in public education, emphasizing improving the learning situation of under-prepared students rather than extending the schools' responsibility to the family and the community. They were distinctive in drawing on the then-dominant theories in cognitive psychology as their guide to improving educational practice. In their view, learning theory suggested that instruction ought to be radically individualized in order to best match instructional strategies to the needs of under-prepared students. Approaches like programmed and computer assisted learning, small lesson units, and frequent feedback were especially recommended. Such programmes would enable even significantly under-prepared students

to achieve success by leading them through carefully graduated learning sequences, with the difficulty of tasks always geared to the current capabilities of each student.

Remediation drew on the concern to improve the learning environment of the school by enhancing teaching and curriculum. This was expressed in the desire to match instructional approaches to the needs of under-prepared students and to "reconstruct schools by promoting an instructional revolution" (McGrath and Townsend 1996:216). Development education, on the other hand, identified more with the social mission of compensatory education and the desire to overcome the debilitating effects of cultural deprivation by developing the whole student. However, the institution-building dimension of compensatory education was abandoned in favour of a heavily psychological understanding of students and their needs. In consequence, neither the conventional understandings of remedial or developmental education encouraged institutional collaboration with public school systems, community organizations, or other institutions serving under-prepared students (McGrath and Townsend 1996). Both remedial and developmental education focused on the "skills" tier of the academic literacies model that was clearly not enough for an emancipatory view of access to higher education.

Both the perspectives of remedial education and developmental education, concerned as they are with the learning environment have helped sustain the focus on teaching and learning, and have stimulated new teaching methods as well as helped broaden the understanding of who is at-risk. However, neither of these approaches has regarded education as an interactive process, whereas Biggs (1993:73) underscores the importance of the interactive process as follows:

> Education is a set of interacting ecosystems. The components in those systems include students, teachers, teaching context, student learning processes, learning outcomes, institutions, staff developers, administrators, politicians, in fact any identifiable component that affects learning.

The issue of student access is a highly diverse one, since it extends beyond the boundaries of the field of higher education. Maharasoa (2001) states that the complexity of the notion of student access arises from the fact that it embraces and is embraced in most, if not all, matters affecting higher education like enrolment patterns, quality, curriculum design and policy frameworks. With reference to this argument, it is vital to adopt a theoretical basis which does not only refer to higher education, but also to social life in general. An ecosystemic approach could be useful in this regard. This approach is based on an adaptation of some of the principles of the general systems, ecological theories and systemic thinking (Von Bertalanffy, 1950 and Bateson, 1972). This theory describes the holistic and organizational principles of systems. The approach concerns the treatment of an educational system in its unique and particular context, while at the same time understanding it in the form of its inter-dependence and inter-relationships with other levels, such as societal and education system levels (Jordaan and Jordaan, 1998). Furthermore, this approach infers that the subject area under study is understood by examining the whole and seeking understanding from the many interrelated facets. Von Bertalanffy (1950:143), in his formulation of a systems approach, argues that the generally acknowledged central position of system theory is the concept of "wholeness". System theorists recognize that "the whole is more than the sum of its parts". He stresses the need to study not only isolated parts and processes of organisms or systems, but also to study the operation of the whole and in particular to consider ways in which parts and processes interact. Von Bertalanffy (1975:6) states that "it is not sufficient to study isolated parts and processes, since the essential problems are the organizing relations that result from dynamic interaction of those parts."

Fig. 1.1: Conceptual framework of the study
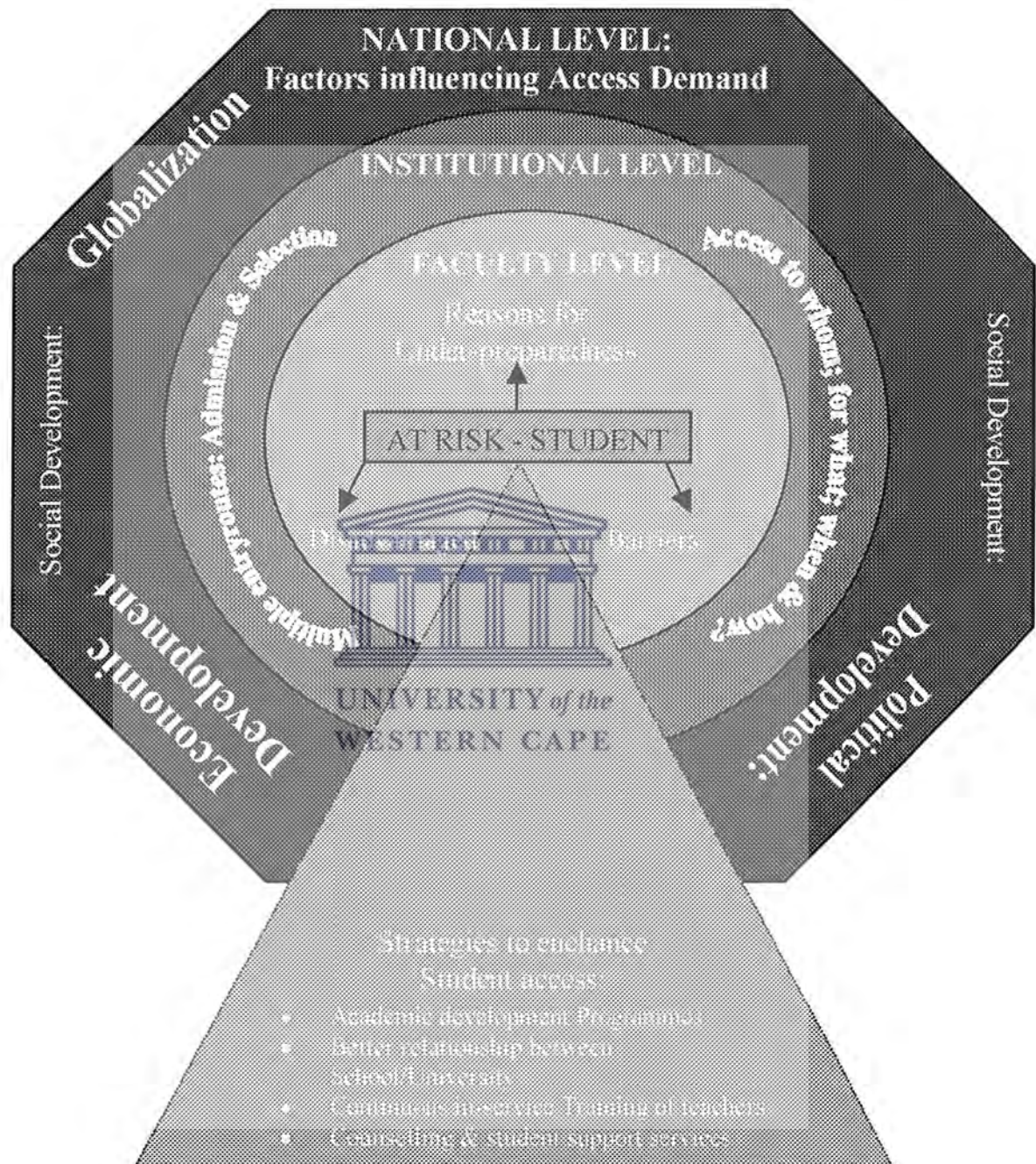
Figure 1.1 attempts to convey the intertwined nature of the many dimensions affecting student access, either directly or indirectly from the micro (individual and institutional) to the macro (political, economical and socio-cultural) level.

This diagram is based on the concept of the under-prepared student in an interactive relationship with different levels of organization in the social context. Each of these levels can be seen as interacting with (influencing and being influenced by) other levels within the total ecological system (Donald, et al, 1997). At faculty level, changes are shaped and maintained both at the immediate institution, and at the national levels. The national level shows macro relationships by direct and indirect interaction among political, socio-cultural and economic dimensions in a given society, as well as with the education system. This model should also be seen as interacting globally, since the interdependence among nations is becoming more apparent and more difficult to overlook.

Möwes (2001:16) argues that a dynamic relationship exists between the student, the centre of learning, the broader education system, and the social, political, and economic context of which they are all a part. This statement agrees with that of Gagné's (1977), that deficiencies in academic background are often associated with poor socio-economic backgrounds, even in well developed countries, because some of the factors which influence learning are related to the individual's environment. Zaaiman (1998:26) endorses Gagné's view that the quality of education available to a student from a low socio-economic background can be expected to be influenced by his/her peer group, the education facilities available at the school and the quality of teachers employed by the school. In practice, the socio-economic status of the majority of households in an area can be expected to influence the quality of educational opportunity available in that area.
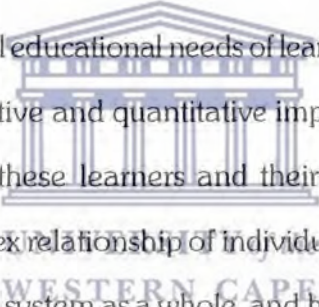
Student background thus influences the student's academic options, academic choices and academic performance. In general, the more disadvantaged students have fewer options and can be expected to struggle more to succeed in higher education than students from privileged backgrounds.

Hixson and Tinzmann (1990) are of the opinion that the issue of definition is an important and necessary first step in both understanding and developing solutions to the problems faced by "at-risk" students. However, the process of defining who is at risk and why is a highly controversial one. These authors argue that historically, in the USA, "at-risk" students were primarily those whose appearance, language, culture, values, communities, and family structures did not match those of the dominant white culture that schools were designed to serve and support. These students, primarily minorities, the poor, and immigrants, were considered culturally or educationally disadvantaged or deprived. As it became obvious that large numbers of these students were not achieving at minimally acceptable levels, "it seemed natural and certainly easy to define the problem as arising from deficiencies in the students themselves."

In addition to these predominant strategies for defining or identifying which students are at risk, there is an emerging body of research that looks at school factors as potential causes of "at-riskness" (Richardson and Colfer 1990). School characteristics that have been identified as hindering the academic achievement of many students include inflexible schedules; narrow curricula; a priority focus on basic/lower-order skills; and inappropriate, limited, and rigid instructional strategies. Möwes (2001:25) states that in order to address special needs, the focus has to be on the development of the education system so that it recognizes and responds to diversity in the student population rather than merely focusing on supporting individual learners. This emphasises the need for a paradigm shift from a focus on "at-risk" students, to identifying and addressing barriers to learning and participation. This paradigm – the "interactive paradigm" (Clark, Dyson and Millward 1995) – acknowledges differences between

individual learners as both real and significant. However, it does not view these differences alone as adequately accounting for the failure of learners within regular schools. Rather, it is the failure of those schools to respond with sufficient insight and flexibility to learners' characteristics that results in educational failure. Since this paradigm particularly values social integration by which non-segregation and participation in a common curriculum are seen as an entitlement for all learners, it follows that the appropriate response to educational failure is to interrogate and reform the characteristics of schools rather than the characteristics of learners (Ainscow 1994 and Dyson 1990). This response is consistent with a systemic and developmental approach to understanding problems and planning action. It is also consistent with new international approaches that focus on providing quality education for all learners.

In order to meet the special educational needs of learners who are "at-risk" due to disabilities or disadvantages, qualitative and quantitative improvements must be made, based on a better understanding of these learners and their particular needs. It is only through understanding the complex relationship of individuals to family, peers, classroom, school, community and the social system as a whole, and how these influences interact, that these problems and the resulting special needs can be effectively addressed.

Richardson and Colfer (1990:110) conclude by stating that .

> The responsibility for the under-prepared student, therefore, does not reside in one individual, be it the child, mother, or teacher. Society creates schools in certain ways to meet its goals and expectations, thus creating environments in which certain children are at risk. The solution to the under-preparedness of children and youth then lies with us all.

1.7 OUTLINE OF SUBSEQUENT CHAPTERS

This thesis consists of 7 chapters. This chapter has introduced the study and outlined its focus. The research design of this particular study is covered in chapter 2 which outlines the research questions which are going to be addressed, and the research methods which will be

used. Chapter 3 aims to provide an overview of perspectives regarding the concept of student access. It will do so by discussing factors influencing demand for access as well as by providing an overview of the complexity of the admission and selection procedures to higher education.

Chapter 4 discusses the reasons why many students are under-prepared for higher education. It also examines approaches and strategies for focusing and prioritizing school restructuring and improvement initiatives, in order to "bridge the gap" between school and university.

Chapter 5 provides the case study of the UAP. This chapter discusses the original design of the UAP as well as the basis for its design, while chapter 6 identifies critical issues which emerge from the UAP case-study, and which might have general applicability, in particular factors making for success or failure. The chapter discusses these factors in terms of their general application in the light of the particular circumstances of the UAP in the Ondangwa regions.
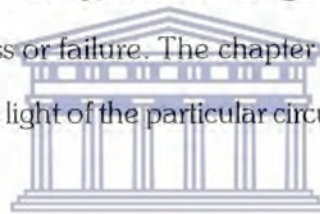
The concluding chapter, chapter 7, ties together the findings of this thesis and makes recommendations as how to improve the implementation of such a programme.

CHAPTER 2

RESEARCH METHODOLOGY

2.1 INTRODUCTION

*T*he main purpose of this study is to understand the UAP within its context, and to identify and analyse critically factors which contribute to its success and those which hinder it. Sizer and Cannon (1997) state that in order to achieve quality in access, universities should take stock of their achievements they have recorded in academic access initiatives and identify gaps that remain to be filled.

To arrive at an effective analysis of the UAP, a multiple method approach based on the logic of triangulation of data from a variety of sources will be applied in the design of the field inquiry (Denzin 1988:510-511). Observations of students, interviews with tutors, and questionnaires completed by students are tied together so that the situation can be viewed from more than one viewpoint by using both quantitative and the qualitative data (Cohen and Manion 1992). In this chapter I will provide a detailed exposition of the methodological and data triangulation as research techniques in this largely qualitative study.

2.2 TRIANGULATION

Denzin (1988:511) defines triangulation as:

> the application and combination of several methodologies in the study of the same phenomenon. These diverse methods and measures, which are combined, should relate in some specific way to the theoretical constructs under examination. Multiple methods in an investigation used to overcome the inherent weaknesses and biases of a single method. There is need for triangulation, as no single research method will ever capture all the changing features of the social world under study.

Each research method implies a different interpretation of the world and suggests different lines of action that the observer might take towards the research process. Interpretations that are built upon triangulation are certain to be stronger than those that rest on the more constricted framework of a single method.

Denzin (1988:512) lists four basic types of triangulation, of which only three are of relevance in this study:

1.   Data triangulation involving time, space and persons. Time triangulation attempts to take into consideration the factors of change and process by utilizing cross-sectional and longitudinal designs. Space triangulation attempts to overcome the limitations of studies conducted within one culture or sub-culture by making use of cross-cultural techniques.

2.   Investigator triangulation consists of using multiple rather than single observers.

3.   A Methodological triangulation consists of using more than one method.

Zuber-Skerrit (1991:12) is in agreement with Denzin (1988) and adds that several different methods may seem to converge on one interpretation, thereby giving grounds for preferring it to other interpretations which are suggested by only one method of investigation. Although the controversy surrounding the principle of methodological and data integration may surface, some literature points to the merits of employing a variety of research methods when pursuing a scientific study. The contention is that methods or designs may supplement one another and fill the gaps where one method would have proved inadequate. In supporting an argument in favour of a multi-method approach, Brewer and Hunder (1989) in Krathwohl (1998:610) states that "our individual methods may be flawed, but fortunately the flaws are not identical. Adversity of imperfection allows us to combine methods not only to gain this individual strength but also to compensate for their particular faults and limitations." Niemann (2000:284) as cited by Maharasoa (2001:10) merits triangulation for its contribution in "limiting random errors during qualitative research."

Promoters of a multiple method approach include Banister, Burman, Parker, Taylor and Tindall (1994) and Brown and Dowling (1998). According to them, this approach is mainly informed by the "multifaceted nature of mankind and life in general". Krathwohl (1998:621) believes that multiple research methods can play many roles in strengthening a study. For example, they may be used in making "numeric data come alive, in precisely summarizing data, in checking on the validity of data, in developing rationales, in catching side-effects, in eliminating rival explanations, in determining a study's next steps and in determining the demand conditions."

For the purposes of this study, a triangulation of quantitative and qualitative methods was employed. Results of the design are outlined as indicated below:

a)   A literature review for a theoretical exposition of key concepts with particular reference to the different institutional access models as well as an in-depth investigation into academic access.

b)   Data collection:
  • Participant as observer:
    The role I adopted in this study was that of participant-as-observer, since the Department of Continuing Education was responsible for the co-ordination of the programme during its initial stage. This situation provided several advantages in terms of my understanding and interpretation of the research results.

  • Personal interviews with the two volunteer tutors of the UAP, the Director of the Centre for External Studies and the Director of The University Centre for Students in Namibia (TUCSIN), were conducted.

  • Questionnaires were given to students at the beginning of the second annual intake. The purpose with the questionnaires was to obtain a profile of the students. (See appendix A).

  • Data concerning the historical development of UNAM and the UNAM Northern Campus were collected by document examination. Newspapers, annual reports, minutes of meetings and policy documents were used as an additional method to support the case study.

c)   Data processing:
- Data processing of the questionnaires was done by means of the Statistical Package for Social Sciences (SPSS) programme to determine the profile of the students.

- Data processing was done by means of content analysis. This method of analysis implies bracketing - grouping categories to form units of meaning in view of this study, pieces of information from interviews with the Director of CES and the Director of TUCSIN were classified in order to "identify common themes or patterns in the views of all respondents". (Van Heerden 2000:276-277). Connections between themes and patterns in various categories were identified in order to further clarify certain viewpoints.

d)   The sample:
The sample considered in this study consists of all the unqualified Grade 12 IGCSE students in the Ondangwa East and Ondangwa West Educational Regions in Namibia as well as those who were registered for the UAP from March 1999 to November 2001. The programme caters for approximately 110 students per year. Approximately 300 students registered during March 1999 to November 2001.

e)   The instrument:
The study was done by means of personal interviews with the two tutors responsible for the programme as well as through questionnaires that were administered to the second annual intake of UAP students.
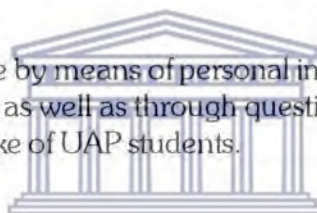
2.3 THE LITERATURE STUDY

The literature study forms the peak of the triangle. This is an essential part of the research since it lays the foundation for the rest of the investigation. It serves as a point of departure in the quest for in-depth knowledge and understanding of the phenomenon being researched. A large part of this study embraces theoretical extracts of issues pertinent to student access, such as under-preparedness, driving forces behind the heightened demand for access, selectivity, access barriers, as well as other developments which precipitate the efficient provision of academic access.

2.4 QUALITATIVE AND QUANTITATIVE RESEARCH

Qualitative research is best understood by the characteristics of its methods and thus the type of data it captures than by a definition. Sherman and Webb (1988:7) provide a summary of these characteristics in suggesting that:

> ..qualitative implies a direct concern with experience as it is 'lived' or 'felt' or 'undergone'...
> Qualitative research, then, has the aim of understanding experience as nearly as possible
> as its participants feel it or live it.

Qualitative research is by definition descriptive, and represents an approach which emphasizes "research as processes." It is holistic in the sense that studies have to be seen in the broader social context (Shaver and Larkins 1973; Watson-Gegeo 1988) and require intensive immersion in the data and considerable familiarity with the research setting.

Quantitative research designs tend to be more structured and prescriptive than qualitative ones. The main aim of quantitative research is to test hypotheses, show relationships between/ among variables, predict phenomena, establish facts and statistically describe phenomena. The data from such studies are often described as hard, dry, empirical, or statistical (Bogden and Biken, 1992). The data are by and large expressed as numbers and interpretations are made in terms of comparisons and partitioning of those numbers (Wiersma 1995). It is this trait of quantitative research that makes systematic observation an appealing component of positivist studies.
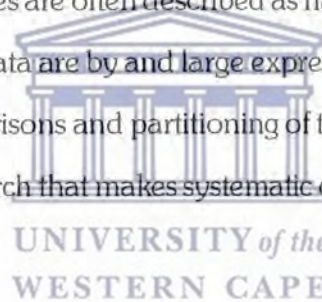
Qualitative research designs on the other hand are generally less structured and more flexible than those in quantitative studies. Wiersma (1995:211 - 212) notes certain underlying assumptions about the epistemology of qualitative research designs. Among these are: (i) phenomena should be viewed holistically, and complex phenomena cannot be reduced to a few factors or partitioned into independent parts; (ii) since the researcher is operating in a natural setting, as much as it is possible, openness should be maintained about what should be observed to reduce the chances of missing out on something important and (iii) post-hoc conclusions should be the priority instead of a priori assumptions and conclusions.

Garbers (1996:284) encourages the notion of participants' involvement and sees it as prime importance in qualitative research. He explains that in qualitative research the researcher's position as outsider shifts to that of an intersubjective position of insider.

According to Berg (1989) qualitative researchers are interested in the way humans arrange themselves in their settings and the sense they make of their environment through symbols, rituals, social structures, social roles and so forth. Qualitative studies primarily seek to develop sensitizing concepts, describe multiple realities and develop understanding. The data are often described as "soft", "thick", "rich" and "deep" in describing people, situations, and conversations. The research questions are designed to explore issues in all their complexities rather than being framed by operationalizing variables (Berg 1989; Bogden and Biklen 1992).

The objective of qualitative research is to promote better self-understanding and increase insight into the human condition; to understand the ways in which different individuals make sense of their lives and to describe those meanings (Garbers 1996:283).

2.4.1   Case study research

Best and Khan (1993:193) and Leedy (1989:90) describe case study research as "a type of descriptive research in which data are gathered directly from individuals or social or community groups in their natural environment for the purpose of studying interactions, attitudes or characteristics of groups". Best and Khan (1993:193) state that since a case study shows development over a period of time, it should be seen as a longitudinal approach. According to the authors, data may be gathered by a wide variety of methods, which includes:

1.   Observation by the researcher;

2.   Interviews with the subjects(s), relatives, friends, teachers, counselors, and others;

3.   Questionnaires, opinionnaires, psychological tests and inventories;

4.   Recorded data from newspapers, schools, courts, clinics, government agencies, or other sources.

According to Gall, Borg and Gall (1996:557) case study researchers might begin a case study with one method of data collection and gradually shift to, or add, other methods. Use of multiple methods to collect data about a phenomenon can enhance the validity of case study findings through a process called triangulation.

Case studies have a number of advantages that make them attractive to evaluators or researchers. Cohen and Manion (1989:150) list the following as some of them:

1. Case study data are "strong in reality" because they are down to earth and attention holding, in harmony with the reader's own experience, and thus provide a natural basis for generalization;

2. Case studies allow generalization either about an instance or from an instance to a class.

3. Case studies recognise the complexity and "embeddedness" of social truths. By carefully attending to social situations, case studies can represent something of the discrepancies or viewpoints held by participants.

4. Case studies are a "step to action". They begin in a world of action and contribute to it. Their insights may be directly interpreted and put to use, for staff or for within-institutional feedback, for formative evaluation or in educational policy making.

5. Case studies present research or evaluation data in a more publicly accessible form than other kinds of research reports.

In addition to the advantages, Huysamen (1997:168) suggests that the case study approach assists the "understanding of the uniqueness and the idiosyncrasy of a particular case in all its complexity". This is aided by the fact that "case study research examines phenomenon in its natural setting." In accordance with the foregoing posit, I was responsible for starting up the UAP at the UNAM Northern Campus in Oshakati. This proved helpful in that I could get a holistic picture and background of, among other things, the location and other variables influencing the implementation of the UAP.

The concern in utilizing the case study approach is not merely to describe what is being observed, "but to search, in an inductive fashion, for recurring patterns and consistent regularities" (Huysamen 1997:168). It is hoped that through this case study factors contributing to the success or failure in the UAP can be identified, and that generalizations can be drawn which will assist educationalists to develop successful programme in the future both in Namibia and elsewhere.

Apart from the foregoing advantages, a disadvantage of the case study method is that the researcher has little or no control over the events that are being studied. Cohen and Manion (1989:129) state that the accounts that emerge from participant observations are often described as subjective, biased, impressionistic, idiosyncratic and lacking in the precise quantifiable measures that are the hallmark of survey research. The question that arises when one looks at the role of participant observer, is: How do we know that the observer does not lose perspective and become blind to the peculiarities that are supposed to be investigated? These criticisms raise further questions about the validity of observation-based research. Attention will be given to this later in this chapter under the heading, *Steps to ensure trustworthiness.*

2.4.2 Participant observation strategies

One of the strategies closely associated with qualitative research studies is participant observation. According to McCall and Simmons (1969:26), participant observation is "not a single method, but a type of research enterprise, a style of combining several methods toward a particular end." The main aim of participant observation is to produce an analytic description of a complex social setting.

Gold (1969) distinguishes between three levels of involvement in participant observation. These include (i) participant-as-observer (ii) observer-as-participant and (iii) complete observer. In all these cases, the researcher's aim is to gain a deep and prolonged contact with the life situation and a systemic, encompassing and integrated feel of the context being studied (Wolcott 1992).

In the participant-as-observer situation both the researcher and the participant are aware that theirs is a field relationship. The researcher spends more time with the participants developing the relationship. The subjects of the research benefit because the researcher is quite prepared to participate more than to observe, as in teaching classes when teachers

suddenly cannot make it. In some cases the researcher would do some formal observations and in others informal observation as in staff-rooms and at social events.

The observer-as-participant situation is characteristic of studies that involve formal observations. The contact with the participants is very brief compared to complete participation and participant - as - observer relationships. For this reason, there is a risk of misinterpretation of the activities of the participant and of the participant misunderstanding the researcher.

The role adopted in this study was that of participant-as-observer. The tutors and students were made aware of the nature of the study, and students were also informed that they would be requested to fill in questionnaires.

2.4.3   The personal interview

Personal interviews were conducted with both the tutors of the UAP, the Director of the Centre for External Studies (CES) and the Director of Tucsin. For purposes of this research, data relating to views of the UAP tutors were collected by means of semi-structured questions in an individual interview setup. Each interview lasted one hour. Through this, the intention was to assist the tutors to do some introspection regarding the way in which they deal with the students, thereby gaining a better understanding of themselves and their practices as tutors in the UAP. A further purpose was to create an atmosphere of confidentiality of response. The interview with both the directors of CES and Tucsin were semi-structured and lasted approximately 20 minutes each. These interviews served as background information for the establishment of the UAP. (See 5.2). An additional benefit of employing the use of personal interview is that they "enable and facilitate the personal engagement of the researcher in the collection of data; they allow the researcher to provide clarification, to probe and to prompt" (Brown and Dowling 1998:72).

Altrichter et al. (1993) and Shaughnessy and Zechmeister (1994) highlight the following advantages of using semi-structured interviews in educational research:

a)   Flexibility is one of the advantages of using an individualized interview in that the interviewer can rephrase questions to suit the level of the respondents.

b)   The physical presence of the interviewer allows for opportunity to interact with the respondents and the circumstances within which he/she is responding.

c)   The open-endedness of questions in the personal interview permits greater freedom of expression in that the participant can respond to questions in detail in order to achieve clearer meaning. This could, however, be very time-consuming.

d)   Greater completion rate is achieved through the use of personal interviews. Because the interviewer is there in person, it might be difficult for respondents to abandon some questions or to refrain from responding.

e)   In cases where questions are answered insufficiently, the interviewer can press for more information.

f)   The personal interview is highly effective in seeking responses to complex issues that require the participants' application of analytical thinking and linkages of causal factors to a problem being investigated. For this reason the personal interview was considered to be relevant to the purposes of this study.
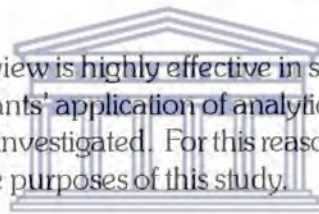
Amongst the criticisms leveled the personal interview is very costly both in terms of time and money. Although it can be an advantage in some cases, the physical presence of the interviewer may turn out to be intimidating to respondents or may even violate the respondents' trust in the confidentiality of responses. Some sensitive questions may not be responded to with utmost honesty (Maharasoa 2001:17).

2.4.4   Document analysis

Documents are mainly written texts which relate to some aspects of the social world. Such written documents range from official documents to private and personal records, such as diaries, letter and photographs, which may have been intended for the public gaze. Documents will range from those which are readily accessible, usually public records, to private documents which have little or no formal means of access.

Once a written text has been created, it becomes a potential source of data for example, minutes of meetings, or a school prospectus issued to parents are forms of documentary data. Hitchcock and Hughes (1995) are of the opinion that the educator as researcher is both a user of existing documents and the creator of new ones. The authors emphasized the fact that there are a whole range of physical artefacts and printed ephemera, such as photographs for example that are also potential sources of data. How useful these can be to the researcher will depend on the purpose of their production and use.

Yin (1984:85) provides us with a list of data sources used in case studies:

Documentation
Letters, memoranda and other communiqués.
Agendas, announcements and minutes of meetings and other written reports of events.
Administrative documents - proposals, progress reports, and other internal documents.
Formal studies or evaluations of the same "site" under study.
Newsclippings and other articles appearing in the mass media (Yin 1984:85).

In contrast, and by way of comparison, Yin also identified a range of archival records which also may be of value to the case study researcher.

Archival Records
Service records, such as those showing the number of clients served over a given period of time.
Organizational records, such as organizational charts and budgets over a period of time.
Maps and chrts of the geographical characteristics of a place.
List of names and other relevant commodities.
Survey data, such as census records or data previously collected about a "site".
Personal records, such as diaries, calendars and telephone listings (Yin 1984:87).

The classification provided by Yin is instructive. It enables one to consider both the range of documentary sources available to the researcher and the purposes to which they may be put. Hitchcock and Hughes (1995) suggest that documentary research be broken down into series of phases, which will give the researcher different problems to resolve and questions to answer. If followed systematically the full potential of a document may be revealed.

First phase: Location

During this phase the researcher needs to locate potentially useful sources and will need to:

- find out the principal primary and secondary sources for the topic being research.

- find out where the documents are housed and/or how they can be obtained, what permission if any is needed to gain access to them, and how best to use them.

- Read around the topic area, not only compiling a bibiliography for a preliminary review of literature but also becoming familiar with the special terminology and approaches used in sources, both primary and secondary.

Second phase: Classification and evaluation

This phase will involve the classification of the documentary data which the researcher has collected, and the research will need to develop some criteria for the evaluation of the different kind of documents collected. During this phase the researcher will need to ask whether the document is authentic, credible and representative.

Authenticity

I have indicated validity or truth and accuracy as criteria for assessing both evidence and research as the terms validity, reliability and representativeness relate to qualitative research in a different way than they do to quantitative research. Looking for consisting and plausibility is an essential part of this process and the following might provide a useful list of questions:

- Does the document make sense or does it contain glaring errors?

- Are there different versions of the original document?

- Is there consistency of literacy style, handwriting or typeface?

- Does the document derive from a reliable source? (Hitchcock and Hughees 1995).

Credibility

Credibility in a document refers to whether it is free from errors or distortions and to the questions of sincerity and authorship. Again, a series of questions can be asked of the text:

- How much time has elapsed between the event being described and the written text being produced?

- Is the account first hand one, i.e. by someone who was actually there or is it second or third hand?

The issue here resolve around four interrelated questions. Why was the document brought into existence? When was the document brought into existence? For whom was the document brought into existence? And finally, perhaps the most important question, in what context was it brought into existence?

The third phase: Interpretation and meaning

Documents demand two kinds of analysis in attempting to grasp their meaning and significance. The first is to understand the surface or literal meaning of the document before us. At this first level of reading one is required to understand the particular definitions and recording practices adopted by the forms in question and the stylization employed in writing the text. However, it is important to go beyond the literal reading of a text to become involved in the second kind of reading for meaning. This involves the researcher in looking for deeper meanings in a given text.

This section have tried to outline the nature of documentary sources and the methodological issues surrounding their collection and interpretation in qualitative research. These materials represent an important and rich source of data for the researcher to explore.

2.5 CRITERIA FOR JUDGING THE QUALITY OF RESEARCH

Lincoln and Guba (1985:290) state that "all research must respond to canons that stand as criteria against which the trustworthiness of a project can be evaluated."

These canons can be phrased as questions to which all research must respond:

1.   How truthful are the particular findings of the study?

2.   How applicable are these findings to another setting or group of people?

3.   How can we be reasonably sure that the findings would be replicated if the study were conducted with the same participants in the same context?

4.   How can we be sure that the findings are reflective of the subjects and the inquiry itself rather than the product of the researchers' biases or prejudices?

A further significant fact regarding the trustworthiness of a research project is time. Glesne and Peshkin (1992:147) are of the opinion that time is a major factor in the acquisition of trustworthy data. Time at the research site, time spent interviewing, time to build sound relationships with respondents - all contribute to trustworthy data. Glesne and Peshkin (1992:147) suggest that researchers should provide respondents with a copy of the interview transcripts for their approval. "Through observing the reactions of respondents they may (1) verify that you have reflected the insider's perspective; (2) inform you of sections or political reasons; and (3) help you to develop new ideas and interpretations."

Guba and Lincoln (1988:84) list the equivalent criteria for trustworthiness in the rationalistic and naturalistic paradigms:

Table 2.1 Criteria for trustworthiness in the rationalistic and naturalistic paradigms

Rationalistic Paradigm	Naturalistic Paradigm
External Validity	Credibility
Reliability	Transferability
Objectivity	Dependability

2.5.1   Steps to ensure trustworthiness

Credibility

Credibility is concerned with the extent to which the subjects find the researcher's interpretations to be believable. Guba and Lincoln (1988:84) propose that the following techniques should be used to improve credibility:

- Prolonged engagement at a site to overcome a variety of possible biases and misperceptions;

- Persistent observation, to understand the salient characteristics as well as to appreciate typical but meaningful features;

- Peer debriefing, to test growing insights and receive counsel about the evolving design;

- Triangulation, whereby a variety of data sources, different perspectives and different methods are pitted against one another;

- Referential adequacy materials, whereby data are collected during the study and archived for later use;

- Members' checks, whereby data and interpretations are continuously checked with members of various groups from which the data was solicited.

As can be seen both measures deal with the degree to which the results of the research can be believed.

External validity

This addresses with the problem of knowing whether a study's findings are generalisable beyond the immediate experiment. Generalisation of a theory is not automatic. It must be tested through replication of findings in a second or third environment where the theory has specified that the same results should occur (Sharwood 1998:44).

Dependability

Dependability concerns the stability of the results. Objectivity concerns the extent of lack of bias and subjectivity. It is worth noting the famous statement by Sir Josiah Stamp (1911)

> The Government Ministries are keen on amassing statistics. They collect them, raise them to the nth power, take the cube root, and prepare wonderful diagrams. But you must never forget that everyone of these figures comes in the first place from the village watchman, who just puts down what he damn well pleases (Thackwray 1997:47).

Reliability

Zeller (1988) as quoted by Sharwood (1998:45) defines reliability as the degree of repeatability or consistency of empirical measurement. According to Yin (1994) one way of securing reliability is to make as many steps operational as possible and to conduct research as if someone were always looking over your shoulder.

2.6 CONCLUSION

In order to arrive at an effective analysis of the UAP, a multiple method approach based on the logic of triangulation of data from a variety of sources will be applied in the design of the field inquiry. Observation of students, interviews with tutors, and questionnaires completed by students are tied together so that the situation can be viewed from more than one viewpoint by using both quantitative and qualitative data. Data processing of the questionnaires will be done through the means of the Statistical Package for Social Sciences (SPSS) programme to determine the profile of the students.

The quantitative data deals with the student progress through the two years of study while the qualitative aspect looks at the responses of tutors to questions about how the programme prepares UAP students for university study.

The concept of the qualitative-quantitative continuum is strongly substantiated by Krathwohl (1998). The author postulates that, although qualitative and quantitative techniques are at extreme ends of the continuum, they actually go a long way in compensating for each other. They become very useful in validating each other's data and afford rigour or flexibility as situations demand.

CHAPTER 3

LITERATURE REVIEW

3.1 INTRODUCTION

The purpose of this study is to understand the UNAM Access Programme (UAP) within its context, and to identify and analyse critical factors which contribute to its success and those which adversely influence it, in order to draw conclusions and suggest guidelines for general applications in Namibia and elsewhere. It is, therefore, necessary to explore the current theories, practices and trends with Access Programmes. Furthermore, it will also be necessary to determine what has already been done that relates to the research problem; studies that have been done will provide the rationale for the study. It also identifies research strategies and specific procedures that have been useful in the investigation of the problem (Gay 1987:29-30). The literature review fulfils a specific purpose. According to Nandjembo (1999:28) the literature should reflect the complexity of the problem that is being investigated and illuminate and explain variables. Therefore, "it should be systematically organised and structured so that the important information about the problem being investigated, might not be lost in the vastness of the literature". The literature on Higher Education reflects some of the complexities addressed in this study.

Although higher education is often regarded as slow to change, it has undergone rapid transformation throughout the world in the last twenty-five years. Today, in spite of differences in their traditions and structure, higher education institutions worldwide share remarkably similar problems, as well as common purposes, as they face a future that is increasingly complex, uncertain, and demanding.

One complex issue which concerns higher education is student access. Maharasoa (2001) argues that the complexity of the notion of student access arises from the fact that it embraces

and is embraced in most, if not all, matters affecting higher education like enrolment patterns, quality, curriculum design and policy framework. Steyn (2001) supports the above view and reiterates that student access is a complex phenomenon, the discussion of which is characterised by vested interests and prejudices. Maharasoa (2001) points out that it is this multifaceted nature of the concept of student access that has complicated the discourse concerning these issues and given rise to a variety of approaches to it. Hunter (1989); Fulton (1989); Moulder (1991); Ferreira (1995); Bird (1996) and Botha and Cilliers (1999), are all in agreement that regardless of the approach, access to higher education is something which should be widened, in particular to include groups who have not in the recent past successfully entered such institutions. Within the access debate there are certain key questions which are indicators of the way access and equity are framed. Such questions normally seek answers to matters relating to issues like access for whom (a specific group of learners or individuals); access to what (an institution or field of study); why access is necessary (what benefit will the learners from the broader society reap from such access?); and access through which mechanisms (the multiple entry paths available for a specific group of learners).
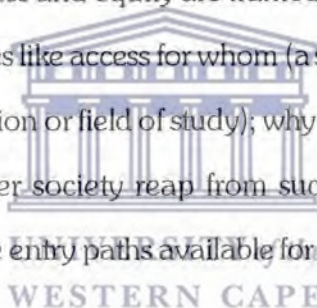
This chapter aims to explore different perspectives regarding literature on access that relates to the broader context of higher education, in which factors such as politics, economics, social and technological development all play a role in shaping the responses to access (Green 1997; Powell 1999; Patton 1999; Thomas 2000; Maharasoa 2001). In order to understand the different notions regarding selectivity and admission procedures (Eurich 1981; Hughes and Mwira 1990; Salter and Tapper 1994; Ajayi, Goma and Johnson 1996; Williams 1997; Zaaiman 1998 and Maharasoa 2001), I will give a brief outline of the different access models, which are commonly used by practitioners and institutions in higher education (Fulton 1989; Bergquist 1995; Williams 1997). The issue of different access routes will be illustrated as practised in the South African higher education system (Hunter 1989; Moulder 1991; Ferreira 1995; Herman,1996; Zaaiman 1998; Sharwood 1998; Botha and Cilliers 1999; and Griesel 2000).

Finally a further aim of this study is to illustrate how most programmes for access aimed at preparing students in terms of academic skills.

Developments in the New Literacy Studies (Lave and Wenger 1991; Barton 1994; Barton and Hamilton 1998), which I use as heuristic to explore aspects of access, such as writing and reading skills, have moved away from models which focus on the educational and cognitive aspects of writing and reading, and are more concerned with the cultural and social characteristics of literacy. Lave and Wenger (1991) are concerned less with student learning but with adult learning in variety of cultural contexts; they challenge the transmission and assimilation model of learning in which individual learners are seen to internalise knowledge. Drawing on different examples of adult learning, they suggest that learning is about what they call "legitimate peripheral participation" in communities of practice. According to Gee, as cited by Boughey (2000:281), literacy is not something that can be overtly taught in a convenient introductory lectures. She states that people become literate by observing and interacting with other members of the discourse until their ways of speaking, acting, thinking, and feeling common to that discourse, become natural to them.

Boughey (2000) claims that the development of academic literacy should be viewed as the goal or end point of a degree course. Lea and Street (1997), in turn, argue that educational research into student writing in higher education has fallen into three main perspectives: study skills; academic socialisation; and academic literacies. Although they are in agreement that socialisation into the ways of the academy as well as the nurturing of a critical academic identity are vital components of full academic literacy, each model successively interacts with the other, so that the academic socialisation perspective takes account of study skills but includes them in the broader context of the acculturation process.

The mentioned authors are in agreement that successful learning takes place when students are able to grasp the practices that they need to master to become full, rather than peripheral,

members of the community. They outline the relationship between identities, knowing and social membership and highlight the importance of discourse and talk in communities of practice. Säljo (1996) considers discursive practices in relation to both broader learning context and the concept of "understanding", he also emphasises the relevance of shared social practices.

3.2 FACTORS INFLUENCING THE DEMAND FOR ACCESS

3.2.1 Introduction

Throughout the world there has been pressure for greater access to higher education. This pressure comes from many sources - from young people and their families who see higher education as key to a better social and economic future and from employers who see the need for a better-educated workforce. In industrialized countries, increasing access to higher education may mean raising participation rates or including underserved groups (usually women, members of minority groups, and the children of the poor). In developing countries, where participation rates are generally very low, bringing greater numbers of students into higher education - especially women and others who have been excluded historically- and providing them with employment skills are high priority agenda items (Middlehurst 1993; Weil 1994). It is therefore necessary to consider the reasons why extending access to disadvantaged groups has increased in importance.

In the context of "globalization" and international competition the concepts of a "knowledge society" and a "learning society" have undoubtedly become salient. With the constant increase or change and development in technology, governments are now more likely to invest in education and training to develop human capital. Higher levels of learning are perceived to support the new industrial and service economy. Furthermore, the work force must be more flexible to cope with ever more rapid cycles of change (Thomas 2000).

At the institutional level the motivation to widen participation can be seen to be market-driven. The need to increase numbers, especially of particular groups, can be financially motivated. In the UK, this expansion is fuelled by the government agenda, and encouraged by the links being developed between widening participation and institutional funding (Copland, 2000).

At the personal level there is clearly economic motivation for increasing educational attainment. Individuals have a desire to increase their job and career prospects, particularly in a situation in which qualification requirements for many jobs are rising. While education can certainly enhance career or work opportunities, it also has intrinsic value, and is, at least in part, sought for its own sake:"self-identity" and "self-fulfillment" may be gained through education. Although employment often facilitates the achievement of these other goals, through income, status and fulfillment, any account of widening participation and lifelong learning should take account of the social as well as the economic benefits of education (Thomas 2000).
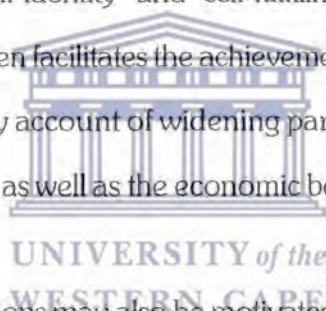
Governments and institutions may also be motivated to widen participation in an attempt to reduce social exclusion. Powell (1999:20) states that social exclusion moves beyond social injustice that is conceptualized in purely economic terms: "It embraces the lack of ability of the socially excluded to exercise their social, cultural and political rights as citizens. Social inclusion requires both economic and cultural change - economic redistribution and cultural recognition". Education therefore is well placed to span this dual role of social inclusion, potentially offering both economic and cultural advancement.

The following section will focus on the driving forces behind the growing demand for access, to include namely technological development, political, economic and social development, and internationalization. Philip Jones, Secretary to the Access Course Recognition Group, as cited in Calder (1993:3), identified two of the main forces:

One is the perceived need for social equity and the ensuing commitment to include in higher education increased numbers of students from parts of the community which are traditionally under-represented, such as the working class, women and black people. The other is the country's increasing need for well-trained personnel which, combined with a fall in the birth-rate, could create a considerable shortfall of highly-educated people in the 1990's.

3.2.2   Technological developments

In recent years, the impact of new technologies has become a major force for change in universities. This impact has only just begun to be felt and will therefore have a huge effect on higher education. Computers and information technology have made it possible to improve upon research results. Distance learning, instruction by interactive video, and computer networks are among the many technological tools which have great potential for increasing access to higher education. That potential, however, requires major investments, both in equipment and in training human resources. Green (1997:16) points out that there may be some surprises associated with technology, too. In one scenario, technology may provide alternatives to costly expansion of campus facilities and may provide higher education access to previously unserved individuals. In this case, technology becomes the medium of choice for the "poor person's education." Another scenario shows technology as such a powerful force that only those institutions that make the required investment and can incorporate it effectively into their research and teaching, will survive. In this scenario, the "haves" will be the users of technology at all levels of schooling, while the "have-nots" will be those institutions that are too poor to invest in it. Whichever scenario is valid, Patton (1999:1) reminds us that the benefit of this technology revolution, however demands, that we develop our students' skills and mental capacity.

3.2.3   Political context

The politics of a country usually determine to a large extent the direction that the country will follow in different aspects of life. Educational matters are no exception to this fact. Based on the country's constitution and the inherent priorities, access to higher education usually forms an integral part of the ruling party's initiatives towards transformation. Maharasoa (2001:27)

points out that the political set-up in many modern democracies has prescribed an inevitable shift from elitist to massified higher education systems. Taking Namibia as an example, it is observed that the educational reforms and policies aim at broadening and diversifying the scope of education and enabling as many learners as possible to benefit from the system. The key policies of the government to achieve Constitutional guarantees for quality education are presented in the 1992 Statement: Toward Education for All, which establishes goals of access, equity and quality.

3.2.4   The economic context

Pressures for higher education to contribute to economic development, both in highly industrialized and in less developed nations, constitute a third important force on access demand. Increasingly, governments, the public, and students are calling on higher education to make a greater contribution to economic growth, job training, and research that will help build and sustain economically productive activities. Such pressures are supported by the belief that well-educated graduates will be contributors to society rather than dependent on it and that the work of scholars can contribute to social progress and economic growth. Furthermore, access is perceived as an effective way of advancing economic growth and responding to the needs of the labour-market. This view is supported by Eisemon (1992:16) who assumes that student access is a means towards "increasing the production of university graduates and fostering greater institutional responsiveness to changing labour market requirements." With specific goals like increasing enrolments and retention in the fields of commerce, science and technology, there is substantial hope for flourishing economic advancement. However, it has been argued (Karabel 1977; Egerton and Halsey 1993; Windolf 1997) that if the supply of graduates expands, there is more intensive competition between graduates for better "graduate" jobs, a competition that is mediated by the prestige of the university.

Reflecting on the above, both institutions and policy makers are faced with questions such as: What can universities contribute to the process of economic and social development? How can they help their nations to cope in a highly technological and competitive arena? To respond to the needs of society, higher education institutions worldwide are realizing the importance of making connections with their communities, schools and businesses. Such partnerships provide opportunities for collaborative projects that meet community needs, and they reach out to new groups of students in formal study or job-related training.

The challenges for developing countries in linking higher education to development are particularly complex, and here comparisons with developed countries are difficult because of the enormous economic differences. Green (1997:12) found that less than 25% of all engineers and scientist in the world are employed in developing countries, while more than seventy percent of research and development funding is in North America and Europe. In Nigeria, the system of higher education has deteriorated to the extent that it makes little, if any, contribution to development. According to Green (1997:13) the situation is so bad that many businesses look for new employees among those who were educated outside Nigeria. In South Africa, the post-apartheid government is looking to institutions of higher education to provide the majority population, long restricted from educational opportunities, with the tools for national development and economic success. This has to be accomplished in the face of the very poor academic preparation of black South Africans in primary and secondary schools and a continuing maldistribution of resources. The role of higher education in contributing to national economic well being is not limited to the less modernized nations of the world. Industrialized nations feel the pressure of international competition, and higher education plays a major role in producing the human resources and research that fuel the economy. Green (1997:13) states that the stakes are so high in industrialized countries, that "secrecy, restricted access, and espionage" are now facts of life on many college and university campuses.

3.2.5   The social context

Addressing social problems is another important contribution universities can make to national development. Because higher education institutions exist within society, they are expected to assist in solving social problems. Through outreach programmes and research, higher education institutions are uniquely positioned to help solve the difficult problems of disease, hunger, poverty, and crime. Boadu-Ayeboafoh (2000) reminds us that, emanating from broader human rights principles, access to educational opportunities has been declared a basic right for all. It is one way of achieving social justice whereby designated groups like women, the disabled, the poor, and minority groups will enjoy equality of opportunity in higher education, affecting social equity.

Lieven (1988:58) has written about the hope that higher education expansion might help break down social class barriers and create a more equal society. Access courses offer "at least the possibility of significantly altering the class basis of higher education'. Lieven (1988:58) also draws out the radical implications for the higher education curriculum. He sees the culture of higher education as "predominantly that of the white, male, professional academy" and applauds access courses for placing "black writers, women's issues, local history and the economy, the environment and the third world... in the forefront of the curriculum." (ibid.).

3.2.6   Internationalization

Green (1997:17) states that in the contemporary world, knowledge is truly international, and available to those with the capacity to communicate with the rest of the world. That fact has significant implications for competitiveness, economic development, scientific discovery, and the exploration of the limits of human knowledge. For higher education, "knowledge of the rest of the world is now a fundamental imperative for success; it holds the promise of discovery, the seeds of competitiveness, and a challenge for leadership" (Green 1997:17). Maharasoa (2002:29) says that:

Whereas in the past higher education systems secluded themselves in their own comfort zones, the situation today is such that global trends fiercely penetrate into national systems of higher education; bringing with them internationalized private institutions with massive bulks of finance and technologically inclined private education - promising more rewards for learners than the traditional public higher education institutions.

Green (1997) reminds us that those who do not have some mechanisms to monitor and understand the internationalization of knowledge are likely to be left out of important spheres of discovery, and they may find themselves less competitive in ways that have major economic and political consequences.

The foregoing list of forces shaping the demand for access to higher education is by no means exhaustive; it only serves to highlight some of the main concerns affecting the trends of access around the globe. Most of these trends indicate that the student that accesses higher education needs to be able to work skillfully and to think critically. The next section discusses who the beneficiaries of student access are and why their access should imply more than advancing at the level of skills.
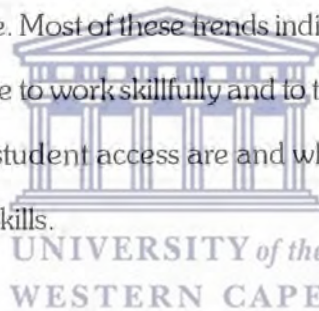
3.3 TARGET GROUPS OF ACCESS INITIATIVES

The significance of any form of access depends on both the national and institutional contexts and will therefore vary from country to country.

According to Sharwood (1998:116) an "at-risk" entry student is one who stands very little chance of passing all his/her subjects at the first attempt. If a student is academically at-risk, we say they are under-prepared for the world of critical knowledge appropriation and production. There are many factors that can contribute to this, such as academic, social, psychological or financial factors, as will be discussed in detail in chapter 4. While very little can be done about the home environment of the student, support can be provided for all of these factors (Sharwood: 1998:116).

Access initiatives can target some or all of the following groups, depending on national and institutional policy priorities:

- Minority ethnic groups;
- People with disabilities;
- Women;
- Low income groups;
- Mature students;
- People in remote /rural areas;
- The educationally under-prepared; and
- Part-time students.

Every university has the responsibility to refrain from any discrimination on the basis of gender, race, and/or disability. Yorke (1999:1) claims that under-prepared students and those from non-traditional academic backgrounds have been encouraged to enroll at institutions that have included "access" in their mission statement. However, academic access discourse applies to all students, irrespective of colour, race, gender, economic and social background, which means that an integrated perspective of academic support for enhancement of access is needed.

3.4 INSTITUTIONAL ACCESS MODELS

Depending on, among other things, their mission, universities adopt certain cultures which can have an influence on their approach to issues of access. The purpose of this section is to provide a brief overview of the different cultures which are embedded in access models, and which are commonly used by practitioners and institutions of higher learning.

3.4.1   The elitist perspective

The elitist perspective is characterized by high concern for quality and low concern for access. From the elitist perspective, the primary role of postsecondary education is the preparation of the people who will assume leadership roles in society (Bergquist, 1995). Brennan and Shah (2000:21) observe another dimension of the elitist perspective in that selection is viewed as a

gatekeeper to ensure quality and excellence: only the "best" are admitted as students, and only the most able are allowed to teach them. The exclusivity of the elitist perspective is clearly illustrated in Williams (1997:30): "They are turning our universities from centers of excellence into remedial institutions...the harsh but simple fact is that by mixing up winners and losers you hold the winners back" (Woverhampton Express and Star, 31 August 1995 in Williams 1997:30). This agrees with what Brennan and Shah (2000:21) have suggested with regard to the British case when they observe that "it is possible to create a mass system while retaining an elitist mentality for thinking about it".

Maharasoa (2001:48) is of the opinion that the elitist perspective suffers from the ivory "tower syndrome" where quality is measured in terms of how "aloof" a university is from the rest of societal structures.

Brennan, Lyon, McGeevor and Murray (1993) postulate that in Britain, employers prefer graduates from socially prestigious universities. This preference is not necessarily based on the quality of programmes. Brennan and Shah (2000:21) echo this and claim that even though the content of their curricula may be less relevant to the jobs they have on offer than the content of the course at more lowly colleges, Polytechnics or 'new' universities. They often go for ethnicity for as long as they can get hold of the cream of the learners from the underserved ethnic groups. To this effect, diversity is achieved within the parameters of socio-economic status, age and occupation.

As far as capital and educational values are concerned, the elitist perspective assumes that "with sufficient resources, there would be exceptional education" (Bergquist, 1995:121). Learners can get "personal capital" or reputation when studying at an elitist university. This reputation becomes highly crucial in the employment arena and in changing from one university to another. The personal capital value employs a very snobbish and discriminatory attitude which has been aggravated by diminishing institutional resources.

With regard to the historically White universities in South Africa, Khotseng (1992:89) is of opinion that South African universities are western in origin in spite of their racial-ethnic character. Khotseng argues that "South African Universities do not seem to be aware that they are operating in a third world African context". He suggests that they should abandon attempts to become ivory-tower institutions. In his concluding remarks, Khotseng expresses his concern that "instead of nurturing cultural privileges and keeping the university as a purely elitist institution focusing on full-time students with accepted entrance requirements", the nature of the university should be changed in order to open doors to students who can benefit from higher education (Khotseng, 1992:93).

Bergquist (1995:80) concord that critics are calling for a halt in the implementation of the elitist approaches to student access. It is felt that, apart from depriving countries of the labour force required to remain economically competitive, the approach denies many citizens the opportunity to actualize themselves in ways that could lead to a desired quality of life often associated with the attainment of university education (Brand, 1997:4).

3.4.2   The populist perspective

Access is of primary concern from the populist perspective. Whereas the high-status elitist - orientated institutions focus on preparing leaders for society, the lower-status, populist-oriented institutions focus on helping graduates achieve individual goals and move up the socio-economic ladder (Bergquist, 1995:127). The populists concern themselves more with "access, need and quality" (Baker, 1992:12). According to this viewpoint, access bears the trademark of quality if it responds to the needs of society. In order for universities to retain or regain public support, they need to demonstrate their competence both through the way they teach and in the way in which they respond to public issues. Bergquist (1995:140) states that "in the populist curriculum, size was paramount - numbers of courses, majors, enrolments, and growth - a banking model approach to learning.... department and discipline areas became

the centres of power - especially departments that reflected the overall growth patterns in enrolment and courses".

Looking at some of the characteristics of the populist perspective, Bergquist (1995:142) asserts, "Success is measured largely by growth rates". Rapid growth is typically taken as a sign that the institution is successful and that it is effectively serving its mission of access. Populist views promote equality of treatment, which they believe can be achieved by maintaining uniformity within the higher education system.

It is likely that populism, although providing a starting point into student access to higher education, neglects another important step in the operationalisation of access - the developmental part. It would be true to say that access is not practised only to increase numbers of previously disadvantaged learners, but that it is meant to transform those learners into mature beings who are ready to deliver service to their society. The populist theory should aim at "establishing a dynamic link between academic knowledge and community service" (University of the Western Cape Three-year Rolling Plan 1999:1).

The populist perspective suggests the following people as the beneficiaries of access if equity and the upliftment of the historically disadvantaged learners are to be attained:

- First-generation students;
- Students from socio-economic levels;
- Minority ethnic groups; and
- Mature students often making a career shift (Bergquist, 1995:145).

Maharasoa (2001:53) concord that the populist theory is problematic in that it "encourages uniformity of teaching and learning". While bridging the gap is necessary, we cannot in any

way assume that people who come from different educational, social and economic backgrounds, can just "fit like a hand in a glove"; there has to be diversity in the teaching and learning procedures to match the level and circumstances of respective groups.

Maharasoa (2001:54) asserts that while the populist theorists' concern about the accessibility of higher education to all members of the society is appreciated, "one would like to raise a concern stemming from the populist preoccupation with access without paying much attention to quality". The reason for this is that, while the populists would like to see the upliftment of the civil society in all spheres, they should strive to strike a balance between quality and access and not treat them as two opposed concepts.

3.4.3   The beleaguered perspective

Bergquist (1995:81) is of the opinion that the leaders of colleges and universities never start out with a beleaguered perspective, which is characterized by low concern for both quality and access. Rather, they end up there when their institutions abandon the commitment to any specific purpose or vision other than survival. When that happens, quality is ill defined and attention usually focuses primarily on process, and especially how decisions on the allocation of scarce resources are made. A strong populist start has often led to beleaguered institutions accommodating too many learners but failing to adjust their resources at the same rate to ensure continued effectiveness.

Gultig (2000:65) claims that universities in the beleaguered situation are "beset with crises and dearth of ideas about their new role, and contextual factors like financial crises, student unrest and loss of key academics." A beleaguered institution is a lost institution; it has lost grip of its reasons for existence and compromises heavily on quality of service and of education. Bergquist (1995) states that because such institutions realise this, they try to regain control by over emphasising bureaucracy, an act which in itself hinders progress in many ways.

The nature of the beleaguered university makes leadership an almost impossible task. The style of leadership is inconsistent and unpredictable, not unlike the circumstances and the future of the beleaguered institution. This triggers another problem for the institution. Mistrust and lack of confidence in the university management result from an incoherent management style.

New strategies are needed to save institutions from finding themselves in the beleaguered position. Marketable programmes that are sensitive to the demand of the communities around them and the ever-changing times may save them or at least alleviate their problems.

3.4.4   The expedient perspective

Contrary to the disorder and lack of clarity on transitional moves that are characteristic of the beleaguered perspective, the expedient perspective becomes an example of a successful and innovative way of responding to challenges regarding size, complexity, mission, and boundaries.

a)   Size and complexity

The expedient institutions employ a hybrid of organisational models in their delivery of access, because - if they are creative - they utilise their own resources and benefit from the resources of other universities with which they can affiliate productively. In this way expedient institutions are in the apparently paradoxical situation of being "simultaneously both small and large" (Bergquist 1995:187). The lifeblood of expedient institutions is innovation and this is carried out through the establishment of satellite campuses and regional/inter-institutional initiatives. Satellite programmes assist in the provision of geographical access. Instead of requiring people to move from their homes to study, the university brings its services to the people. Satellite programmes are usually applauded by the local communities, as a conscious decision is normally taken by the relevant university to tailor make them to suit community needs. It is not just the

community that reaps benefits from the satellite programmes; the expanding university itself reaps sizeable financial benefits in reduced costs for administrative duties since these are normally handled at the main campus. However, it should be noted that quality control or accreditation bodies might view this outreach initiative as a possible threat to quality.

Another achievement of the expedient university is the pursuit of a cluster model of adaptation and diversification. In this model an institution secures more clientele by establishing additional smaller (branches) or cluster organisations. Based on the decision of the main campus, these clusters can offer different specified courses or offer diversified programmes.

b)   Mission and boundaries

At the root of expedient-oriented universities lies commitment to fund-raising and programme development activities, neither of which reflects the original mission of an institution. Given the shift in focus, these universities need to re-assess their missions and re-adjust them from time to time to incorporate the additional focus points. The importance of revising mission statements is stressed by Fourie (1996:28) who suggests that the "mission and goals of higher education institutions require periodic review to ensure that they meet not only the needs of the institutions themselves, but also the needs of society".

Central to the revisiting of mission statements should be concern for quality and access. The quality of the new programmes that are being developed should be predetermined and enacted in a mission statement. The same should apply to student access. Even before commencing the programme redesigning process, a consensus should be reached on who should enrol in the programmes and which of their needs the curriculum aims to meet. According to Weber (1999:6), universities should listen more carefully to society to learn and understand its changing needs and expectation. "Universities should be more responsive to needs when

offering new programmes." By means of this approach, universities can attain distinctiveness and win the recognition of stakeholders in terms of being responsive to the pressing demands of society - a popular measuring stick for quality in student access (Maharasoa, 2001).

An additional characteristic of expedient institutions is a lack of clarity on the students' needs, wants and expectation regarding the university. The provision of multiple entry points, mechanisms for student support services, and the random, unexplained assignment of statuses to the working staff and the learners are features of expedient institutions. Although they should be applauded for widening access routes, the discrepancy arises from the failure of these institutions to provide support for the previously disadvantaged students. "The expedient institution simply leaves the new students to sink or swim" (Bergquist 1995:202).

On the whole, the foregoing four perspectives dominate or direct the discourse of quality in student access in American higher education. The elitist and the populist are more traditional notions, while the beleaguered and the expedient are more contemporary perspectives on quality in access. Because of the deficiencies exemplified by each of the four perspectives, the fifth and more collaborative, more inclusive and more effective perspective is advocated.

3.4.5 The unified perspective

The unified perspective is characterised by high concern for both quality and access. From the unified perspective, access becomes genuine through the enhancement of quality, and quality is in turn improved by increased access. "Improved quality makes an institution more reputable - a critical factor when increasing access for men and women who are usually ignored by higher education" (Bergquist 1995:82). The previously underserved students are hereby singled out because, having come from a lower socio-economic class, they regard credibility as a critical issue in their attempts to better their lives. Although other perspectives regarding quality and access have their own strengths, which should not be downplayed, the unified perspective seems to be superior because of its merits and the high probability of

success. It is likely that the adoption of a unified perspective approach would positively influence the quality of access to higher education.

According to the unified perspective, one way of striking a balance between quality and access is by acknowledging the learners' past experiences and integrating them into their studies. This can be achieved through the use of interactive teaching methods whereby learners are given a chance to demonstrate their skills and competencies. This academic competency is further illustrated through the "academic literacies" model of academic and development support, which presents a unified view of academic competency (Boughey 2000:281).

3.5 LEGITIMATION OF SELECTIVITY

One point of view that reverberates throughout most of the research being concluded on student access is the fact that there are many competing voices which are trying to control the agenda of access to higher education. In defining the normal, such voices also define the "abnormal", the "special", the "problematic" students who should either not be in higher education at all, or who need quite particular entry routes, or courses, teaching, or even institutions.

It is this shifting and complex division between the normal and abnormal, between legitimate and illegitimate students, and in consequence between acceptable and unacceptable ways of defining merit, particularly in the context of increasing student numbers and debates around massification, which are explored in this section.

Williams (1997:25) says that words such as access, standards, academic excellence, mature students, and quality, are used as "shorthand descriptors" of who should or should not be let into higher education. Ball (1990) as quoted in Williams (1997:25) is of the opinion that such "icon" words have become embedded in "polarizing discourses"; there is a simplistic opposition of alternative understandings:

Elite v. mass
Standard v. non-standard
Traditional v. non-traditional
Quality v. access
Academic freedom v. government control

Williams (1997:25) points out that "what is important is the way such polarizations around key icon words work. By using one or more key words, the unacceptability of the opposite, the alternative, is assumed."

In Britain for example, the linguistic link between standard students, i.e., 18-year-old school-leavers with three good A levels, and notions of "standards" are not accidental. The non-standard student becomes the "other", the threat to quality (Williams 1997:26). Bargh et al. (1994:37) suggest that non-standard students are perceived in different ways, depending on who they are being compared with, and that such comparisons will change with institutional contexts.

Certain key questions that are indicators of the way access and equity are framed will be dealt with in the next section. Who should determine the nature of higher education? Who should be admitted? How is their selection justified? Who are the normal and who are the abnormal?

3.5.1   Who should determine the nature of higher education?

In trying to address the question of who should determine the nature of higher education, academic traditionalists would agree that academics should. Ball (1990) suggests that the label of "academic traditionalist" can be attached to the "neo-conservatives and the elite descendants of the nineteenth century humanists." Ball states that certain aspects of the academic traditionalists' views are central to many academic cultures, in that they particularly value academic standards, merit, excellence and intellectual freedom. Williams (1997:29) points out that the academic traditionalists place a lot of emphasis upon standards, which

symbolize and reinforce notions of academic merit and are presented as neutral, fair and a just selector of the suitable. According to the academic traditionalists, a normal, acceptable student is one who has undergone a quite particular form of academic socialization, designed for 16-18 year-olds in schools. A higher education institution can, on this basis, take for granted the preparation that the individual has received and build upon it. The abnormal student is one preparation cannot be taken for granted. Williams (1997:32) points out that there are those who would argue that the academics at universities are the "custodians of selection." They define the context of "individual social mobility." certificate professional knowledge, influence occupational mobility and provide the autonomy to promote particular sets of values. Their view is that students who can demonstrate in advance of entering that they have the capacity to benefit should be admitted. Such academics are of the opinion that although the government has a role in deciding the size and purpose of higher education through its control of finance, it should leave academics to decide the nature of the universities, and students to choose which of the competing institutions they would like to attend (Eurich 1981; Lal 1989; Salter and Tapper 1994; Williams 1997).
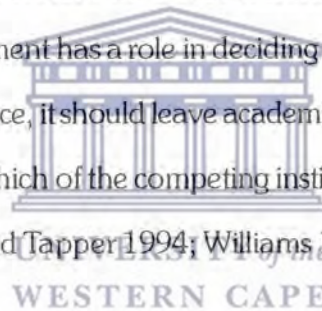
Green (1997) reminds us that even private higher education institutions in countries such as Japan and the United States are regularly challenged by political leaders with a wide range of demands for change - to increase access, lower costs, meet national defense needs, and respond to technological challenges. Through policy decisions that affect the amount and distribution of resources, participation, academic programmes, and personnel, governments have the first and last word in determining the fate of public higher education.

3.5.2   Widening access for whom?

Before trying to answer the question of access "to whom" there are prior and more fundamental questions, namely: For how many students? What percentage of a population should go to university? What percentage of the population needs to be graduates in order to stimulate the development in a country, economically, socially and politically? In most industrialized countries,

the percentage of people attending universities is significantly less than those attending other tertiary institutions, such at technikons and colleges. Hawarden (1993:9) is of the opinion that this situation is reversed in South Africa, where there is a vast number of university students and not enough in technikons and other post-secondary institutions. Hawarden (1993) states that figures suggested a need for a 3% growth in the demand for engineers from 1985 to 1995 and figures ranged from 1.6 - 3.6% in other professions.

When the question of numbers has been answered, the question "For Whom?" can be addressed. Here one needs to examine the concept of elite as distinct from elitism. If one accept that an elite is merely a select group, then one must agree that universities are inevitably for an elite - a select group of talented individuals, with potential for successful academic study. Hawarden (1993:9) argues that there is a vast difference between the concept elite and elitism, that is,

> a situation of excessive privilege, where a minority has been allowed to dominate and has taken the best and the most, and where those exercising this privilege have an attitude of superiority and unjustified entitlement. If we remove the racist bias, so that the group which is selected for university study becomes one which represents the demography of our country, then would it not be accurate to say that universities do exist for a select group?

In a publication of the Academic Development Centre (ADC) at the University of the Western Cape in South Africa, it is argued that "A university sustained by public funds has a responsibility to serve the interests of that public, and not just a select few." Hawarden (1993:9-10) expressed his concern with regard to what the ADC meant by "that public" and "select few."

> If they mean the majority (Blacks) as the former and the minority (Whites) as the latter, then certainly there is no argument against that statement, which describes a situation which has existed in South Africa, and continues to do so. But if they mean by a select few those who attend university, I suggest we need to look more carefully at what is an emotionally loaded issue, but is essential when we attempt to address the question under discussion. What if we changed our understanding of the word "select" to mean a group who would benefit most from university study and from whose university studies the country would benefit most? I am suggesting that our concern might be to ensure that scholarship is linked to service and that, by the application of their knowledge and expertise, the select

few would in fact serve the interest of that public majority Will we ultimately serve the public majority by submitting to enormous growth in student numbers, with the very likely result of serious reduction in quality of teaching and learning, where the quality of output may be doubled (Hawarden 1993:9-10).

The matter discussed above is loaded with complications because of the difficulties in deciding who does have, and who does not have potential. In support of this argument, Maharasoa (2001:35) reminds us that at the heart of transformation lies the intention to change things, usually for the better. Student access is viewed as transformation if it is able to redress the discrepancies within an institution, resulting in equity. It is about affirmative action, aiming as it were to bring on board those who, due to the history of being disadvantaged (economically, socially, politically, etc.) have not had the opportunity to participate in higher education. Ajayi, Goma and Johnson (1996) feel that access to higher education must be given as far as possible to those who qualify for it. The issue of affirmative action must be explored with the aim of compensating groups for the harm done and remedying under-preparedness to ensure equal competition. However, the authors see affirmative action as useful only for a short period until balance is established.
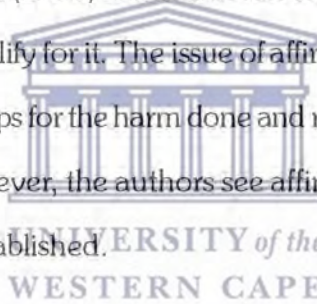
3.5.3   Admission and selection into higher education

When there is agreement about the percentage of the population which should attend university and which can be afforded, then issues which flow from this can be addressed - the first being, how to select the student and which routes should be followed to enter into higher education. Selection of students for higher education is not a recent phenomenon. It has been practiced for centuries, aiming to identify students who will succeed in a specific academic programme.

For Zaaiman (1998), selection for higher education involves making decisions about the futures of applicants. This means that selection decisions impact directly on individuals, communities and on society in general. Not being selected generates feelings of rejection and

disappointment that can lead to a sense of inferiority and/or injustice among applicants, regardless of background. Zaaiman is, however, aware of the fact that selecting a student carries as much responsibility as rejecting one. This is especially true when selecting previously disadvantaged students. This concern not only holds for the South African situation but is also mentioned in international literature.

For many decades in practically all corners of the globe, admission into university was solely reliant on school-leaving examinations results. These results have, however, come under scrutiny over the past few years. The consensus is that, on their own, examination results are not a true reflection of the learners' actual capabilities and potential - particularly for African learners who have been subjected to an inferior high school education (Hughes and Mwira 1990).

a)   Sub-Saharan Africa

Ajayi, Goma and Johnson (1996) give a comprehensive overview of higher education in Africa south of the Sahara. A summary of selection-related issues raised by these authors is given here, while other relevant literature is also mentioned. Under colonial rule, African students had limited access to secondary and tertiary education. Few African universities existed and overseas educational opportunities were available only to children of chiefs and the rich. Educational opportunities started to increase during the period of decolonisation (1945 to 1960) with the establishment of more African universities. The main role of these universities was to train teaching, administrative and technical staff to take over civil service jobs previously reserved for Europeans. One of the criticisms leveled against the colonial universities was that they were training elite that could become post-colonial exploiters of their own people. To avoid this, access to primary, secondary and higher education was widened after 1960. New institutions and campuses were established. Courses increased in variety, especially in the vocational and professional fields.

But, by the end of the 1980's, it was clear that African universities and national systems of higher education were in crisis. Reasons given for this include state interference in their autonomy during times of political and social crisis, economic uncertainty, and financial, administrative and management problems. These factors manifested themselves in stagnation of student enrolments, inadequate and badly maintained facilities, the overcrowding of classrooms and student accommodation, under - stocked libraries, low levels of educational quality, a corresponding lack of confidence in the education offered, and impoverished research. This resulted in a lack of self-esteem and low morale for both staff and students at many African universities (Hughes and Mwiria, 1990; Moja et al. 1996; Ajayi et al. 1996). Ajayi et al. (1996) claim that African universities contributed to their own deteriorating quality by admitting students of low calibre, recruiting mediocre academic staff and overloading physical facilities in attempts to satisfy demands for rapid increases in student numbers. The increasing numbers of secondary school leavers in Africa have resulted in increasing demands for access to higher education (Hughes and Mwiria 1990; Herman 1995). Selection is mainly done on the grounds of end-of-school results in most African countries. This means that students who come from higher socio-economic backgrounds and/or who have attended better, often urban schools stand a better chance of gaining a place in higher education than others (Hughes and Mwiria 1990). Zaaiman (1998:16) states that the aspirations of people in underdeveloped rural regions, who need the social and financial benefits of higher education, are often not satisfied by the available educational opportunities.

The current educational systems do not therefore satisfy Africa's educational and person power needs, and especially not the need for people qualified in the fields of science and technology, which is generally seen as extremely important for the development of a country (Thijs 1994). But students in underdeveloped countries are often not adequately prepared for such education. Calls for efficient and equitable selection mechanisms are made (Hughes and Mwiria 1990). Such selection must be perceived to be fair to be seen as legitimate. Equity and equality of opportunity are relevant political issues. Ajayi

et al. (1996) suggests that countries must ensure that adequate facilities are provided at both primary and secondary school levels so that no group starts off at a disadvantage.

b)   USA

Zaaiman (1998) describes how most American colleges and universities use internal high school grades (GPA) as the most important factor in admission. Scores on external entrance examinations, such as the Scholastic Aptitude Test (SAT) and the American College Testing Programme (ACT) are the next most used criteria for selection. A combination of high school grades and entrance test scores has been found to be a better predictor than either alone (Browne-Miller, 1996). Additional selection mechanisms such as interview, biographical data, and essays are used by some institutions (Linn, 1982).

Literature from the USA on minority group access to higher education, gives the impression that many issues remain unresolved. There seems to be a lack of significant progress in achieving equity in tertiary education. A disturbing observation is that thirty to forty years after opening their educational institutions to all races, the Americans have not been able to solve problems of equal access and performance (Browne-Miller 1996; Altbach and Lomotey 1991). As Browne-Miller states

> It turns out that the implementation of equality through equal access to education - that vague, but marvellous ideal - is far more complex than expected, especially in the realm of higher education (Brown-Miller 1996:13).

Lomotey (1991) and Nettles (1991) are of the opinion that the number of Black students has dropped in many American higher education institutions. The authors ascribe this trend to drastic cuts in the education budget. They are also of the opinion that few Black students are found in courses that offer the greatest opportunity for future job access and earnings. For example, students from Black minority groups are still under-represented in the fields of mathematics, science and technology. Even when they gain access to institutions of higher education, Black students tend to take longer to complete their studies and achieve lower grades than White students (Lomotey 1991; Nettles

1991). Browne-Miller (1996) discusses the University of California, Berkeley's admissions policy of accepting only those students who have a reasonable chance of graduating.

While asserting that access should be based on merit, Miller (1999) states that in the USA, the connections between privilege and academic "merit" have been downplayed in the argument that merit-based aid does not shut out the poor: they too can get B averages, score well on tests and work hard to do well in college. But "merit" is tied to educational and social privilege as it plays out in primary and secondary education.

c)   Continental Western Europe

Selection and reform in Higher Education have been key issues in continental Western Europe since the late 1960s. Zaaiman (1998:19) states that universities in Europe have traditionally been open to everybody who successfully finished upper-secondary school and passed the final examinations. Yet access to higher education was limited through highly selective secondary schools as well as limits on places in higher education institutions. In the 1960s demands for the right to education led to the opening of these secondary schools, resulting in many more students finishing school at the upper secondary level. This shift from elite to mass education meant more students in higher education (Richter 1988; Gellert 1993; Halsey 1993).

Richter (1988) states that the reform movement of the 1960s had two main goals, namely the development of human potential, and equality. Western Europe was said to need more qualified person power, and selection within the educational system was seen as being unnecessary. However, it soon became clear that expansion did not automatically mean equality of opportunity. Open access for many more students to higher education meant too many applicants for the best-paid jobs, especially in medicine and related fields. Labour market constraints in the mid-seventies limited the job aspirations of many over-qualified people: creating qualifications did not create

jobs (Richter 1988). This situation forced most European countries to limit access to higher education in some way. According to Zaaiman (1998), restricted admissions now often involve fixed ceiling numbers for oversubscribed programmes, mostly set according to labour-market requirements.

Kaiser, De Lange and De Weert (1997) in Zaaiman (1998) compare the selection procedures for higher education in eight European countries. Some candidates have to try for several years to gain access to prestigious programmes, such as medicine. Entrance to courses is mainly determined by end-of-school results, including subject choices. External selection tests are used in only a few countries, for example in Finland. Other selection procedures in use are: test or interviews to determine level of motivation (e.g. France and Denmark), waiting periods (Germany), work-experience (e.g. Sweden, Norway and Denmark) and weighted lotteries (e.g. Germany and the Netherlands). In most European countries alternative entry routes are available to cater for more diverse student populations. Alternative entry can be based on mature entry requirements, work experience and special cases (e.g. immigrant or refugee status).

d)   United Kingdom

Access to higher education is expanding, and there is a great deal of discussion about Britain entering a new era of "mass" education. But the system has a long way to go before it can be described as open. The selection process into both further and higher education is complex and guided by principles largely invisible to the outside world (Jenkins 1986; Wrench 1990; Hall 2001). The educational and vocational aspirations of students are both guided and restricted by the various entry standards, both formal and informal, laid down by institutions, course teams, employers and various regulatory professional bodies (Williams 1997). What makes the system or recruitment "elitist" and a hidden arena for "racist" decision-making, especially in higher education, is its dependence on a very narrow, specialized and academic system of secondary school

qualifications. The attainment of these has repeatedly and over a long time been shown to relate to class, gender, race and ethnicity. Much research and major governmental inquiries have established beyond doubt that most Black minority group pupils leave school less formally qualified than White ones (Calder, 1993:40). This means, first, that some minority groups are becoming channeled into the lower end of the higher education structure, into lower status institutions and subjects with fewer career opportunities. Secondly, the "hidden nature" of the admissions system makes it open to all the charges of institutional and hidden racism that have been directed against recruitment systems in the labour market. As a result of his research into racism in employment recruitment practices, Jenkins (1986) makes an important distinction between what are seen as "suitable" candidates, i.e. sufficiently formally qualified, and "acceptable" ones, i.e. for more nebulous reasons "desirable" candidates within the context. Hall (2001) supports Calder, and further observes that studies of the distribution of students in higher education in the UK across ten "lifestyle neighbourhoods" showed that, although participation from the lowest socio-economic groups had risen during the late 1980s and early 1990s, school leavers from wealthier neighbourhoods were at least five times as likely to enter higher education as those from the poorest areas. Bird, Yee, Sheibani and Myler (1992) stated that British higher educational institutions' commitment to accessibility for Black people is often not adequately supported after admission, leading to low progression rates. Once in higher education, students from the lowest socioeconomic groups were twice as likely to be studying for sub-degree programmes than students from the highest socio-economic groups.

Brennan (1989) pointed out that ideologies in the admissions processes in universities were highly influential on access policies. He identified two main ideologies: the first was "the selection of the best candidates" ideology and the second the "competition for all places" ideology. Four models can be found which commonly arise from these ideologies. The first model, also referred to as the reputational ideology (Fulton, 1989),

connects admissions to the quality and reputation of departments and the institution. Here the ability to attract "good" students is seen as an indication of high status of the departments and institution. A-level-point scores have been used as standardized proxy measures of the quality of student intake (Fulton 1989). Brennan links the second approach to the "equity" principle, in that competition for places should be "fair" and, therefore, the best students should be allocated places first. The third approach relies on social engineering. Such an approach would allow for a modification of the "rules" of entry in order to favour those who are disadvantaged by the standard criteria, i.e. access students or minority groups. Such concerns in many cases relate to broader political agendas, which see social and occupational mobility through education as an important contribution towards achieving a fairer society. Therefore, in looking at routes into higher education and the composition of students admitted, there is likely to be great concern with the social composition of the student group in terms of social class, ethnicity, gender and age. Thus, whereas the reputational ideology attaches great value to the A-level-point scores of the student body, the social engineering ideology looks for a desired social composition. The fourth model relies on the "shortage of students" principle where places must be filled and so it inadvertently favours access students.

According to Walker (2000), most universities operate policies which incorporate many of these approaches in varying degrees. The University of Glasgow, for example, offers high status degree programmes which favour the first two models, but it also has arrangements for social engineering through programmes such as the Scottish Wider Access Programme (SWAP).

According to Smith and Bocock (1999:285), the 1987 White Paper *Higher Education: Meeting the Challenge* (Department of Education and Science 1987) expressed the then government's desire for higher education to take positive steps to increase admission of students offering qualifications other than traditional A-levels. "Widening participation

was seen both as desirable in its own right and as the key to achieving the cost efficient expansion of student numbers in higher education". Further expansion, it was suggested, could only be achieved by widening the entry base, which in turn led back to the problem of pre-requisite entry qualifications, and the narrow base provided by A-levels. Since then the range of activities designed to assist mature students without standard qualifications has grown. Such activities range from short "Return to study" courses to more extensive access courses acting as "tailor-made" preparatory courses for particular types of degree schemes. One target group for such courses since their inception has been mature students from Black minority groups. This was because of the recognized need to redress labour market inequalities and to train Black professionals for entry to a range of professions such as teaching, social work, and nursing (Smith and Bocock 1999:285).

To the traditional A-level route into higher education, the White Paper added two alternative but henceforth officially recognized routes. The first of these was the vocational route. The second official route recognized by the 1987 White Paper was the Access Course. Such courses were developed to cater for mature students with or without previous qualification wishing to return to study in an accelerated fashion. The proponents of Access Courses themselves seem almost universally to reflect the social engineering approach to admission. It is a radical movement in the sense that it sees education as a means by which whole social groups can improve their social, economic and political positions within British society. The social groups which represent the primary clients of Access Courses are seen to have been "failed" by the conventional educational system. The Access-Course movement is founded on a rejection of such failure and of the criteria that have defined it. It has developed a conception of education that builds upon and fully recognizes the cultures of the client groups (Fulton 1989).

Walker (2000) states that there can be no doubt that such courses have acted as a "launch pad" into higher education for many Black minority students wishing to enter higher education, as well as a second chance for students who would not otherwise see themselves as educationally prepared for degree studies. Various studies show that Access Courses have contributed to increasing the enrolment into higher education institutions, especially for Afro-Caribbean students (Millins 1984; Lyon 1988; Brennan and McGeevor, 1990). Within the British higher education system, Access Courses located within communities have had the effect of what in the USA are referred to as "affirmative action programmes". Such programmes are designed to remedy the consequences of past discrimination by offering opportunities designed to promote the recruitment of minority groups.

Given the failures of the school system in the past to provide equal opportunities for groups of students, and given that positive discrimination and quota recruitment is against the law in Britain, Access Courses in local and accessible further education colleges have come to be significant because of their power to attract Black minority students with the promise of support, encouragement and tangible outcomes in admission and degree results.

Finally, although Access Courses appear to be largely a British phenomenon, there are similar developments in other countries, such as the establishment of "bridging" and "foundation" programmes in engineering at some universities in South Africa and the creation of 'preparatory' programmes at some Australian universities (Hayes, King and Richardson 1997:19). The importance of Access Programmes is summarized by Calder (1993:44): "Access Courses will remain important as a route into higher education for previously disadvantaged students for some time to come and employers need to be educated about their educational role and significance."

3.5.4   Access routes into South African university education

Looking at the South African situation, Keitel (2000:2) states that "the growing diversity of the student population has led to more flexible forms of delivery and multiple entrance and exit points in higher education." From an audit of what is happening in different South African universities, Griesel (2000:16) suggests that four main assumptions propel the implementation of student access. These are:

- Access as gate - keeping through entrance testing and placement;

- Access as redress through alternative routes of preparation;

- Access as institutional survival through flexible modes of delivery; and

- Access as quality assurance through a reconfiguration of curricula.

It is in this context that the access routes discussed below should be conceptualized.

a)   Selection based on Matriculation results

Admission to higher education in South Africa is mainly done on the grounds of student end-of-school results. The final school year in South Africa is currently called Matric (Standard 10 or Grade 12). Only a small minority of students gain access to higher education institutions on grounds of their Matric results. Others enter for example through mature entry status or additional selection tests. At least six subjects must be taken for Matric. The difficulty level of a subject is indicated by the terms higher grade (HG), standard grade (SG) and lower grade. Matric results are given in the form of symbols ranging from A (80% and above) to H (Less than 25%).

Chisholm (2000:3) observes:

> Our national senior certificate examination, the matric, has for several decades served as the benchmark by which we annually assess students, system and society. Rickety and unreliable, it has come under pressure from communities, educationists and government.... As matric exemptions have stagnated along with the overall national

average, so potential recruits for universities have dwindled, their quality diminished by a sector ravaged by insecurity and declining morale.

Despite these problems, education must go on, and learners must be admitted into universities. A critical question is whether the national senior certificate examination is "a fair system in a country where for centuries the school system has been highly unequal, favouring the privileged white minority?" (Herman 1995:265). The answer to Herman's question is "definitely not." The effect resulting from admissions and the selection of learners based only on matric results can be far-reaching. As Van der Merwe (2000) cited in Maharasoa (2001:123), points out: "If school results were as unreliable as suspected, admission based on these may result in diminished throughput rates, financial losses and wasted time of those students who had been wrongly accepted or rejected". These notable limitations, coupled with the changing face of the higher education system in South Africa, have increasingly necessitated the introduction and utilization of alternative entrance routes into universities (Maharasoa 2001:124).

The White Paper (Republic of South Africa Department of Education 1997) makes clear that the Ministry of Education is committed to ensuring that the minimum statutory requirement for entry into all higher education programmes will in future be a pass in the proposed Further Education and Training Certificate (FETC). Institutions will continue to have the right to determine entry requirements as appropriate beyond the statutory minimum. However, in exercising this right, they should ensure that selection criteria are sensitive to the educational backgrounds of potential learners and incorporate the recognition of prior learning, which is an essential concept in the application of the National Qualifications Framework (NQF). The Ministry strongly supports developmental work and pilot projects which will help institutions to develop criteria to assess applicants' prior learning and experience, so that those with clear potential to succeed in higher education can be admitted (RSA DoE 1997).

b)   Pre-entry tests: Apart from the school-leaving examination results, many universities use pre-entry tests to admit learners either into the institution and/or into specific

"reserved" programmes like medical sciences. These can range from interviews with learners to criterion-referenced testing. Botha and Cilliers (1999:144-145) are of the opinion that the purpose of these pre-entry tests is mainly to "broaden access... provide better counseling to these prospective students with reference to their fields of study, subject choices and the availability of academic development programmes and to continually refine the university's standards." Maharasoa (2001:124) expresses her concern by stating that although these devices serve the interests of universities very well, once again the legitimacy of generalizing their application to all applicants of universities is highly questionable, more so when they are applied to the previously disadvantaged students whose scores normally would be lower than what is required. This statement is echoed by Darling-Hammond (1996:257) who states that pre-entry tests provide an extra chance to prove their worth for those learners who did not fare well in matric, but the danger is that administering these tests to students "with lower test score performance penalizes already disadvantaged students twice over: having given them inadequate schools to begin with, society will now punish them again for failing to perform as well as other students attending schools with greater resources and more capable teachers" (Darling-Hammond 1996:257).

c)   Access Programmes: Another revolution in the access discourse has been the introduction of Access Programmes. Generally speaking, the purpose and primary aims of Access Programmes are to award opportunities to learners who have been disadvantaged in some way in order to gain entry to higher education and to progress towards completion of the intended course of study. "Without intervention from the higher education sector, [these learners] are unlikely to gain equitable access to study opportunities and to the world of work" (University of the Western Cape Three-year Rolling Plan 2000-2002:18).

A diverse range of models is in place in different universities within the South African higher education system. Examples of models of Access Programmes include the Career

Preparation Programme of the Free State Further and Higher Education and Training Trust, the Telematics Learning System of the University of Potchefstroom, the Alternative Admissions Research Project of the University of Cape Town and the University Foundation Year in Maths and Science of the University of the North (Griesel 2000). Currently, the situation is such that Access Parogrammes in South African universities are intended mainly for Black students who present a host of limitations that emanate from the legacy of apartheid education.

Mackay and Motala (2001:2) identify an evolution in the nature and purpose of Access Programmes in South Africa "where programmes moved from simply giving support to students on demand, to slow stream courses, where the material was simply presented at a slower pace... These can generally be divided into three categories:

- The foundation type programme, where pre-university work was covered.

- The augmented type model where students registered for first-year courses and received a curriculum to augment their studies.

- A mixed approach that provided foundation type courses in the first-year and then led the students on to a structured supported first-year program of study."

The following section looks mainly at programmes which cater for science students at tertiary institutions in South Africa.

Bridging programmes

Bridging programmes cover preparatory work for tertiary studies. The subjects taken normally do not carry any credits for mainstream studies. The programmes are usually used to identify those with the aptitude to continue their studies in an engineering or science related field and may sometimes be considered to be an expensive means of selection (Sharwood 1998:51-52). According to Sharwood (1996) there are three kinds of programmes that fall into this category:

a)   Short Bridging Programmes

For example the University of Stellenbosch offers a four-week intensive course in preparation for their extended curriculum programme. For the duration of the programme, the students stay in residence on the campus. Successful students enter courses in science and engineering.

b)   Full Bridging Programmes

These are normally offered over the full period of study, which is six months in the case of technikons and over one year for universities.

c)   Programmes offered by Technical Colleges

The University and Technikon of the Free State co-operate with technical colleges in the region who offer the N courses in preparation for tertiary study. Students who are successful in this Career Preparation Programme can apply to the university for admission to mainstream courses.
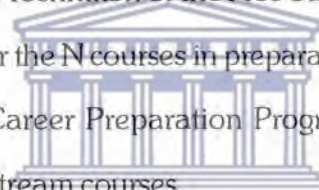
Foundation Courses

According to Sharwood (1998:52-53), Foundation Courses cover preparatory work for tertiary studies and include some credit - bearing subjects. They differ from extended curriculum courses in that they do not provide automatic access to the mainstream and are often used as a selection or channeling system. Typical programmes that fall into this category are:

- University of Natal (Science Foundation Programme)

- University of Cape Town (Science Foundation Programme)

- University of the North (University of the North Foundation Year Programme)

- Port Elizabeth Technikon (Pre-Technician Course).

Extended curriculum courses

In extended curriculum programmes or reduced load courses, the regular course is extended over a longer period of time. In most cases, the first year is spread over two years and is supported by non-credit bearing subjects and additional tutorials. Sharwood (1998:53) identifies three types of programmes that fit into this class:

a) Separate Extended Programme:

Students take a reduced load and have separate classes for their mainstream credit subjects in their first year. These classes include more contact time than the mainstream but the students write the same tests and examination as the mainstream students. The students are also given support courses. In the second year, the remaining first year subjects are taken. Examples of this type are the University of Cape Town ASPECT programme in which the first two years of the four-year engineering programme are extended over three years and the University of Natal UNITE programme where the first year is spread over two years on a reduced load basis.

b) Mainstream Extended Programme:

Students take a reduced load but attend classes with the mainstream students. They are also provided with additional tutorials and support courses.

Institutions which conduct this type of programme, are:

University of Pretoria,

University of Stellenbosch,

Cape Technikon and

Vaal Triangle Technikon.

c)   Slow Stream Programme

Here the students take the full complement of subjects but these are taken over twice the normal period. An example of this is the Port Elizabeth Technikon Civil ASP programme, where the usual semester programmes are spread over a year.

Depending on the national or/and institutional priorities, Access Programme can vary in terms of the duration of the course (ranging from two weeks to one year), the mode of tuition (contact or distance learning), levels of provision (credit accumulating and non-credit accumulating course providing a basis for generic skills), and specific objectives for the study. While Access Programmes may generally aim to prepare students to succeed in higher education, "some programmes lead to a specific named route within higher education (Access to Law, Access to Nursing, and some are more generic). However, even within a programme which is named "Access to Higher Education", specific named pathways may be available, designed as preparation for particular higher education course" (Quality Assurance Agency for Higher Education 2001:1). Although this observation refers to the British higher education systems, it is the case in the South African higher education system as well.

d)   Programme and curriculum innovation

Students in universities (including the under-prepared) increasingly seek study programmes that will increase their competitiveness and marketability. This seems to be an uncompromising demand to which South African universities like other universities elsewhere, have to respond if they are to remain viable. Some universities have taken heed of the situation and are beginning to respond accordingly (Maharasoa, 2001).

Another access initiative that is battling to find its footing in South African higher education is the re-structuring of curricula to accommodate the learning needs of a diverse student profile. One of the priorities of South African higher education currently

is the redesigning of the curricula with a view to laying the foundations for an empowered and liberated society. The importance of critical thinking "has for a long time been associated with an alternative curriculum.... Which prepares people for human liberation; one which helps people to be creative, to develop a critical mind, to help people analyze; one that prepares people for full participation in all social, political, or cultural spheres" (Higgs and Higgs 2001:2). Efforts in this area include broadening access to the previously elite courses of study, like Science and Technology as well as introducing lower levels of study like diplomas in preparation for higher levels of study, i.e. degrees. In some cases, the duration of the course of study has been extended to give learners the opportunity to progress through the course at a pace conducive to them.

Curricula changes do, however, concentrate largely on subject content and modes of delivery. Creating a culture of tolerance within higher education institutions has been neglected up until now. According to the Council on Higher Education (1999), the majority of higher education institutions in South Africa have not implemented systematic campus-wide programmes designed to promote diversity, tolerance, and community building. In their curriculum reform activities, only a few institutions appear to take into account student development needs related to gender, race, broad diversity awareness, and democratic citizenship.

e)   Recognition of prior learning and experience (RPLE)

The Recognition of Prior Learning (RPL) (or the Accreditation of Prior Experiential Learning, as it is know in the UK, or Prior Learning Assessment, the term used in the USA) provides a mechanism for individuals to receive recognition within higher education for their prior learning. It reflects the belief that adults can learn in a variety of contexts outside educational institutions, such as paid or unpaid work, and that this learning may be broadly equivalent to that gained formally in an educational institution

(Davies et al, 1997). Evans (1983:3) defined RPL as: "The knowledge and skills acquired through life and work experience and study which are not formally attested through any educational or professional certification". Fulton (1989) asserts that adults seeking access to higher education undoubtedly have experience which is greater both in quantity and variety than that of the average school-leaver. Thus RPL is intended to provide routes into and through higher education for mature adults, enabling them to build on relevant learning and avoid repetition (Davies et al, 1997).

Castle and Attwood (2001) noted that there are apparent similarities in the notion underlying adult education and RPL. Both build on the principle that adults have useful experience which has been acquired from everyday life, work and community that are worthy of recognition, and which forms a basis for further personal, professional and academic development. This experience includes not only knowledge and skills, but also qualities such as focus, responsibility, self-discipline, motivation and self-knowledge. Knowles (1980), an early proponent of adult development theory, believed that adults are open to learning, and are experienced as learners. Another similarity between adult education and RPL is that both aim to achieve personal empowerment and social change, particularly for disadvantaged groups (Castle and Attwood, 2001).

RPL is an attractive proposition because it offers a response to social and economic pressures for change. On the one hand, there is a growing awareness that learning from experience, gained in a variety of contexts, including work, politics and civil society, should be far more acknowledged and rewarded, especially in educational institutions. This awareness is underlined particularly in South Africa by social and political demands to broaden participation in higher education by Black South Africans, many of whom were excluded from quality education and a range of occupations in the Apartheid years. Thus, in South Africa, RPL is associated not only with issues of individual and social justice, but also with the cause of redress and cannot be considered a politically neutral process (Harris 1999; Michelson 1998).

On the other hand, RPL may be seen as a response to economic pressures to develop and manage the knowledge and skills of the workforce in the interest of competitiveness in global markets.

According to Castle and Attwood (2001:60), the transformation and restructuring of higher education in South Africa is moving towards a more inclusive education system serving school leavers of all races and social classes, as well as adult learners. Buchler (1999) is of the opinion that the pool of White and Asian youth with good matriculation results, whose middle-class parents can afford to pay tuition fees at public universities, is contracting, partly due to emigration, and partly due to competition from private and commercial colleges. In addition, there has been a steady decline in the matriculation pass rate since 1994, due to the "poor resources, incompetent teaching, dysfunctional schools and inefficient procedures" still prevalent in many schools in formerly Black areas (Enslin and Pendlebury 1998:261). According to Buchler (1999) one of the challenges facing universities is to revise admission policies to include the recognition of prior learning, and to provide intermediate levels of education and training that give experienced working adults, as well as poorly prepared school-leavers, access to, and success in, tertiary education.

3.6 BARRIERS TO ACCESS

3.6.1 Introduction

A significant amount of research on access programmes is concerned with barriers to higher education. DuBois, in her 1989 study, mentioned fear (largely due to prior school experiences) and lack of support as major barriers to education. In their identification of barriers to access and progress of Black students in Britain, Bird, Yee, Sheibani and Myler (1992) emphasize the lack of information about higher education and a lack of liaison between higher educational institutions and schools as well as a lack of support for Black students in higher education, as the three most factors that contribute most to the low progression and high failure rates of

these students. In this section, I will discuss barriers to access to higher education as found in access literature, and will also provide some possible solutions to overcome such barriers.

3.6.2   Barriers to Access

In his paper "Identifying and Dealing with Access Barriers", Bolge (1994) states that most barriers to higher education fall into one of four categories: personal access barriers (e.g. lack of information, low self-esteem, or loss of motivation); socio-economic barriers (e.g. lack of transportation or child care); socio-cultural barriers (e.g. family pressures or language problems) and institutional organisation and culture (e.g. lack of personalized counseling or role models). He lists them as follows:

3.6.2.1   Personal Barriers
1.   Lack of information
2.   Lack of familiarity with a campus environment
3.   Low self-concept
4.   Low self-esteem
5.   Loss of motivation
6.   Lowered goal horizons
7.   Lack of responsibility
8.   Lack of organization

3.6.2.2   Socio-economic Barriers
1.   Insufficient discretionary funds
2.   Transport problem
3.   No childcare facility
4.   Racial and gender discrimination

3.6.2.3   Socio-cultural Barriers
1.   Family pressures
2.   Language problems
3.   Culture of poverty
4.   Lack of technological competencies

3.6.2.4   Institutional Organization and Cultural Barriers
1.   Lack of personalized/tailored counseling
2.   Lack of role models
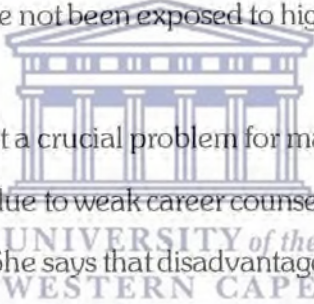
3.   Lack of sensitivity among staff and faculty members
4.   Admission requirements
5.   Limited programme offerings

3.6.3   Access Barriers and possible solutions

3.6.3.1   Personal Access Barriers

Research has shown that in many cases, the lack of information about higher education

institutions can act as a very strong access barrier. Students need to know that higher education

can be an option for them, not just for the "rich kids" or the "smart kids". Stoel et al (1992:15)

are of the opinion that many poor and minority students do not get the information they need

to prepare them to enter college and to succeed there. Many students who enter higher

education have not been academically encouraged, are the first in their family to attend

higher education, and have not been exposed to higher education activities and behaviours.

Zaaiman (1998) states that a crucial problem for many disadvantaged school leavers is the

lack of career knowledge, due to weak career counseling at school and an absence of suitable

professional role models. She says that disadvantaged Black matriculants in Southern Africa

often do not apply for university places in time, mainly because of a lack of information

about, and experience in, the complexities of university application in their communities and

schools. According to Segall and Smith (1994), a lack of available information on admission

policies makes higher education selection and admission process appear like a lottery to

many disadvantaged school leavers. It is suggested that students must be counseled properly

on taking the necessary subjects at school, which is a pre-requisite for entry into higher

education. They need to be informed about the tests required for admission. They also need

to be guided through subject choice and application processes, including securing financial

aid.

Anderson and Nemi (1970), as cited in Rolfe and Wilson (1979:6), believe that "the

disadvantaged are hampered by certain psychological disabilities, including a lack of self-

confidence, low self-esteem, and a high degree of dependency." Hathaway and Rhodes (1979) suggest that a programme offering individualised instruction, good teacher models, and self-image enhancement has the best chance of success. West (1993) holds similar sentiments and states that feelings of hopelessness amongst disadvantage students represent the greatest barrier to progress. West (1993) suggests that teachers must get to know their students individually. They should meet regularly and provide a context for students and staff to discuss their work, worries and experiences of college. Furthermore, a positive human relationship between teachers and individual students contributes to student learning because the students' desire to earn the respect and praise of the teacher can be a powerful source of social motivation when the student feels a close and positive association with the teacher. Moreover, a teacher can serve as a more effective role model for a student after a positive relationship has been established. West concludes that the curriculum should also be revolutionised through being grounded in the immediate concerns of the ghetto relating to poverty, racism and powerlessness. West says that learning starts with lived experience and students have to reconceptualise education as the means to understand more about themselves and their situation. He states that one way to do this is by focusing on writers and thinkers who address the issues from direct experience. Black writers and intellectuals also serve as role models, illustrating, through their actions and achievements that progress is possible without rejecting one's roots or background.

Support is another personal factor linked to persistence in access programmes. DuBois (1989:48) found that "family support played a large part in the student's persistence." Educators working with disadvantaged students often assume that their students will not go to higher education, and for many reasons they do little to change that situation. Teachers are less demanding of students they perceive as non-college-going, and therefore teachers and staff tend to slot disadvantaged students into lower academic tracks. Such attitudes and expectations set limits on student achievement.

Fordham and Ogbu (1986) state that disadvantaged students are more likely to find their school work to be dull and boring and to have difficulty in seeing connections between school work and their own future. They also will be less confident about going on to college, because the costs may seem prohibitive. There may be no family history of college attendance, so they may not have the motivation to work hard for good grades that drives more advantaged students who definitely anticipate that they will apply for admission to college. Similarly, disadvantaged students who see many adults unemployed in their community will have greater difficulty in believing that working hard in school will pay off for them with good jobs later in life.

Young people from lower social classes are more likely to take qualifications which have a lower chance of gaining them successful entry to university and that are even less likely to lead to university for people from their social class background (Metcalf 1997).

Stoel et al (1992:19) stress the importance of students being held to high standards by both teachers and family members. Such students are capable of strong academic achievements when they are held to higher standards.

Myers (1988) has found that more students complete their studies if they are internally motivated. In helping students achieve higher aspirations, programmes need to provide mechanisms for peer and community support. By linking students with adults who have backgrounds similar to their own, the students gain role models. Mentors can also help parents understand the "anxiety attached to further study", and can help them to deal with the conflicts that arise from their children's new ambitions (Stoel et al 1992:22). Strong parent and community links to the school can help students feel a positive attachment to their own school and teachers because students will often mirror the attitudes of the adults in their home and neighbourhood. Furthermore, teachers may often show more personal interest in students when they know the parents well.

Students from deprived backgrounds may not have a quiet place at home to study, while well-to-do students will often have not only a quiet place but also home libraries and computers to support their learning activities. While parents who are not well educated can give strong emotional support to the education of their children, they will not have the academic strengths to help with homework as students progress through more challenging courses. In addition, Fordham and Ogbu (1986) state that peers can be a particularly negative distraction from academic work for many underserved minority students. The authors are of the opinion that some case studies have suggested that some African - American adolescent peer groups stigmatise their fellow students as "acting white," which can be a very powerful discouragement to further efforts in self-improvement.

Lack of organisational skills refers to the individual's inability to understand and follow the steps necessary to accomplish a task within an appropriate time frame. Lack of responsibility refers to the individual's inability to follow through on commitments and/or to accomplish tasks which he/she accepts as important to his/her future.

3.6.3.2 *Socio-economic Barriers*

Insufficient discretionary funds form a very real access barrier for a potential student who is not eligible for financial aid. All over the world, governments expect universities to make do with what they have, and South Africa and Namibia are no exception. "As national, state and local policy agenda evolve under changing political leadership...competition is rising for government funds from multiple sectors of society... One trend is the loss of predictable resources to support higher education, especially in the traditional ways it goes about its business" (Nedwek 1999:172). In order to function well in the new dispensation, universities are under pressure to accept more learners, including those who, due to the inequalities of the past, need tremendous support to succeed at university education. Government's demand for increased access is not, however, accompanied by financial support to help institutions to comply. On the contrary, government is becoming more and more reluctant to dig deeper

into the public purse to support higher education institutions. The result of this is that universities are left with no option but to stretch available human and physical resources or turn some applicants down, thus barring learners who could have benefited from higher education. Some universities have experienced huge declines in the enrolment statistics of first - time entering students, while others have had to struggle with immense student debts which have led to debtors either being expelled from universities or dropping out.

The financial stringency under which millions of South Africans survive and the direct effects of such are highlighted in the following observation:

> For thousands of Black South Africans, access to tertiary education has become the difference between having a roof over your head and being homeless, between being fed half of the year or starving, between owning some clothing and being decked out in rags, and between meeting social commitments by sending home small amounts of cash to your family, or joining the ranks of those who are fully unemployed. (Maharasoa 2001:133).

The foregoing observation articulates the perspective that, for many learners from historically impoverished communities, the acquiring university education is also a way of escaping from the poverty-related realities of their lives into places where they have accommodation, food and some extra money to spare for family. It must be noted, however, that this situation only applies to learners who mange to get scholarships or student loans.

Transportation problems and no childcare options are barriers with which many Access Programmes are faced. With reference to childcare centers, Kethusegile, Kwaramba and Lopi (2000:249) state that this suggests gender insensitivity on the part of educational planners, who assume that only males will attend these institutions and that if women do attend, they will have to make the difficult choice between schooling and raising their children. Furthermore, pregnant female students in formal tertiary and secondary schools in the Southern African region are sometimes expelled from the education systems. For instance, the Namibian Country Report states that pregnant girls are not allowed back into school because there are no resources

to cater for them. It is believed that pregnant students will adversely affect the morality of other pupils. In most of southern Africa, when a girl gets pregnant by a schoolboy, it is required that the latter should be expelled from school. In reality, most of them deny responsibility and remain in school (Frindt 1993:53).

In summary, "access to the benefits of an education incorporating a coherent gender dimension is, for the time being, limited" (Grunberg 1999:395).

Although new trends are beginning to surface, access to certain fields of study was for a long time dependent on, among other things, societal, cultural and racial stereotypes. In South Africa today, as is the case in some other countries, the humanities and other "helping" professions are still female-dominated, since traditionally women are considered to be physically, intellectually and emotionally suited to being caregivers. On the other hand commercial and more scientific professions have for an equally long time been "male dominated in accordance with the societal and cultural belief that men are intellectually and physically more able than women" (Frindt 1993:54).

Reviews of recent literature show a number of gender-related trends in mathematics and science related performance (Ndunda 1999; Mwetulundila 2000; Goldstein 1993). Young (1991) and Meece and Eccles (1993) as referred to by Zaaiman (1998:67) states that there is a general agreement that boys make better progress than girls in science and mathematics at higher secondary school. It is often reported that men do better than women in natural science and engineering courses and that many more men complete such programmes than do women. However, Zaaiman (1998:67-68) is of the opinion that this tendency is less likely in more industrialized countries and in countries where females receive equal support in mathematics and science education.

A revolution "aimed at improving the percentage of female students; access to a larger spectrum of specialties; access to the labour market" (Grunberg 1999:397) is spreading apace in many higher education systems. These changing times have brought about a freer world where women may now pursue careers in engineering and information technology, while men may register for courses in the hospitality management and beauty technology fields without being snubbed (Maharasoa, 2001).

Racial stereotypes by which Black South Africans and Namibians were deemed unfit for high-level intellectual engagement are slowly vanishing. The opening up of previously white high schools has provided Black learners with opportunities to enjoy quality education that stimulates them intellectually and enables them to prove their ability. To some degree, the entrance qualifications of some members of this group of learners has opened doors to the allegedly "difficult" university subjects, which, it was believed, could only be tackled by their white counterparts.
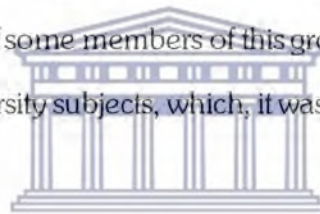
3.6.3.3   Socio-cultural Barriers

Family pressures that provide a barrier to access cover a wide range of situations and life/ family stages. Family obligations bar many women from further study opportunities. Ethnic traditions sometimes run counter to access. It has frequently been shown that single-parenting poses a barrier to access.

Potential students for whom English is not a first language have a special access barrier - a language barrier. Bird and Welford (1995:390) as quoted by Ockhuizen (1998:31) state that language is a factor that may influence the general performance of students, and that there are two issues of importance with regard to articulation and understanding of performance. Firstly, students are hindered if they are unable to speak clearly in a second language, and secondly language problems may interfere with the students' understanding of the question.

This concerns not only English, but also other subjects in a curriculum, for instance mathematics and science.

3.6.3.4 Institutional Organization and Cultural Barriers

Bolge (1994:20) states that a lack of personalised counseling, role models, and sensitivity among staff and faculty are interrelated access barriers. One of the biggest access barriers is cost. Potential students either cannot get financial aid or just cannot find enough money to pay for tuition, fees, books and supplies.

While demographic characteristics perhaps cannot be changed and situational factors are often difficult to overcome, the areas that can most be influenced by studies such as this are psychological factors and programme variables. Indeed, programme aspects can perhaps most easily be changed. Aspects such as class size, class times, location of lessons, number of tutors working with a student, quality of instruction, and selection of materials are within the control of Access Programmes.
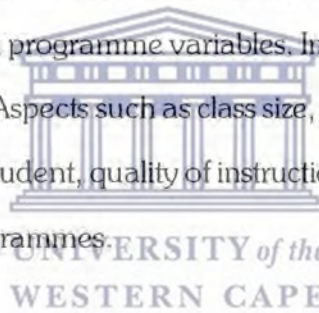
Previous studies have looked at some of these areas. Jha (1991) listed research related to class size. She says that Boshier (1973) found that a class with fewer than nine students had a lower dropout rate and that Wheaton (1976) also suggested smaller classes to aid in retention.

Butler and McNeely (1987) found that the presence and assistance of caring and well-qualified staff could make a difference in student outcomes. Although some writers do not regard teachers of access programmes as educational professionals, they do in fact work with the most difficult students, the students that the traditional educational system has failed. Special skills are needed to work with these students in addition to a solid knowledge base. Quality of instruction, improved through staff development, is a programme variable that should be examined in regard to student outcomes. Damico-Samuels (1990) asked urban, male, African

- American students what programme characteristics encouraged them to persist. Responses were programme support services, geographical location, class schedule, the content of instruction, and the quality of teaching.

As pointed out earlier under 3.3.5, students' end-of-year results remain the predominant admission criterion for university education. To have merely passed the South African end-year examination in not adequate; a pass with an exemption is criterion number one. The problem with the insistence on matriculation exemption is that, for the past few years, the number of students obtaining the desired pass mark has been on the decline. "Only 50 percent of the country's matriculants passed their examination in 2000, with a smaller number obtaining exemptions and meeting university entrance requirements" (Maharashoa 2001:130). Whatever the reasons, the situation is hampering the admission of thousands of learners (particularly from impoverished communities) to South African universities.

3.7 CONCLUSION

In this chapter I demonstrated that student access is a complex phenomenon, which assumes different forms. Because of its multifaceted nature, various schools of thought have defined access differently, and this influences the ways in which universities implement it. A university's concept of "access" determines its approach to dealing with the issue, and also influences the identification of the target group e.g. the economically disadvantaged, the educationally under-prepared, learners with disabilities and minority ethnic groups. I have also tried to show that selecting a student carries as much responsibility as rejecting one. This is especially true when selecting previously disadvantaged students. This concern not only holds for the South African situation but is also discussed in literature from further a field. The last section of this chapter looked at access barriers, noting that the ultimate goal is to eradicate or minimize barriers to academic access.

Next, I turn to a detailed discussion that attempts to understand the issue of "disadvantage".

CHAPTER 4

EDUCATIONAL DISADVANTAGE

4.1 INTRODUCTION

*T*he importance of identifying students with the potential to succeed in higher education despite educational "disadvantage" was emphasized in the discussion in chapter 3. This Chapter discusses the concept of disadvantage and explores possible reasons why many students are under-prepared. It also examines approaches and strategies for focusing and prioritising school restructuring and improvement initiatives, in order to "bridge the gap between school and university". The central argument of the chapter is that it is not possible to attribute lack of preparedness to any single variable, but that it is a complex set of factors that interact in rendering a young person helpless at a time when decisions about her/his future cannot be made freely. It is this complexity that I wish to analyse in the chapter, trying to identify those that logically seems to fit the context of this inquiry. I also argue that the development of a full academic identity and the autonomous use of skills and practising the code of conduct of the academic community cannot be assumed when educational disadvantage at school is a major factor. It would therefore be essential to include these aspects in the design of Access Programmes.

4.2 DEFINITION OF DISADVANTAGED

It has long been acknowledged that many students are under-prepared for tertiary education and that this accounts for the high failure rate of first - year students in tertiary institutions in many countries. This is certainly so in South Africa, where it has been aggravated by the apartheid system where Black and White pupils were exposed to separate and different educational systems (Zaaiman 1998; Sharwood 1998).

While there are no statistics that show the proportion of students from disadvantaged backgrounds who actually have access to university, it is true to say that a large proportion of black students entering the university system not only struggle financially, but also experience difficulties in fulfilling the demands made by higher education (Baijnath 1997).

Baijnath (1997:58) is of the opinion that the roots of disadvantage are to be found in the history of education in South Africa. He says that a key thesis with regard to disadvantage is that the school experience of the majority of the students has not prepared them adequately to cope with the conventional demands of university study. This agrees with Zaaiman's (1998:23) definition of disadvantage:

> A student can be regarded as having been disadvantaged if s/he has had inadequate access to quality educational services, resulting in a lack of opportunity to fully develop her/his academic potential.

According to Ross et al. (1988) a student's level of educational disadvantage can be defined in terms of the educational opportunities available to the student, and this would, of course, include the teachers of these students. For example, Novick (1978:42) defines educational disadvantage as: "the net effect of those characteristics of a student's environment that provides less than normal exposure to factors that motivate and facilitate educational growth."

It has been shown in many parts of the world even in well developed countries that deficiencies in academic background are often associated with poor socio-economic backgrounds, because some of the factors that influence learning are related to the individual's environment (Gagné 1977). Zaaiman (1998:26) endorses Gagné's view that the quality of education available to a student from a low socio-economic background can be expected to be influenced by his/her peer group, the educational facilities available at the school and the quality of teachers employed by the school. In practice, the socio-economic status of the majority of households in an area can be expected to influence the quality of educational opportunity available in that area.

A student can thus be regarded as having been disadvantaged if s/he has had inadequate access to quality educational services, resulting in a lack of opportunity to fully develop her/his academic potential. The quality would imply, if the view of Cohen and Barnes (1999) is accepted, that access to good teaching is the more important component of this access. That is why it is a reported phenomenon in the grade 12 school examination results in South Africa every year when some poorly equipped schools in Orange Farm, previously an informal settlement, have 100% pass rates. Although many of the teachers are not well qualified in terms of academic qualifications, they have been involved in a seven year teacher development programme that focuses primarily on teacher knowledge and skills (Henning 2000).

In selection practice, disadvantage is a relative concept in the sense that an applicant's level of disadvantage has to be evaluated in relation to that of the other potential students. According to Zaaiman (1998) the levels of disadvantage can be evaluated in two different ways. Firstly, the quality of the student's previous educational opportunity can be compared to that which can be regarded as optimal for educational development in the selection context. The socio-political context in which the selection is done then plays an important role in the evaluation of the student's level of disadvantage. For example, in a situation where group-based differences in educational opportunity exist, the educational opportunity of the group that received the highest quality education may be taken as the baseline for optimal development. Secondly, differing levels of access to quality educational opportunity can also exist within specific applicant pools. The actual levels of disadvantage found within applicant pools also have to be identified during the evaluation and development of selection mechanisms.

Hixson and Tinzmann (1990) are of the opinion that the issue of definition is an important and necessary first step in both understanding and developing solutions to the problems faced by "at-risk" students. However, the process of defining who is at risk and why is a highly controversial one. Historically, in the USA, "at-risk" students were primarily those

whose appearance, language, culture, values, communities, and family structures did not match those of the dominant white culture that schools were designed to serve and support. These students, primarily minorities, the poor, and immigrants, were considered culturally or educationally disadvantaged or deprived. As it became obvious that large numbers of these students were not achieving at minimally acceptable levels, "it seemed natural and certainly easy to define the problem as arising from deficiencies in the students themselves" (Goodlad and Keating, 1990:2)

Goodlad and Keating (ibid.) propose that the tendency to blame school failure simply on characteristics of the students, their communities, or their families has diminished, or is at least less overt. At the same time, the need to identify that portion of the student population most consistently experiencing school-related problems remains an important priority. From the work of Hixson and Tinzmann (1990) and Goodlad and Keating (1990), specific approaches have been developed in defining at-risk students. Most schools and policymakers in the USA use these approaches:
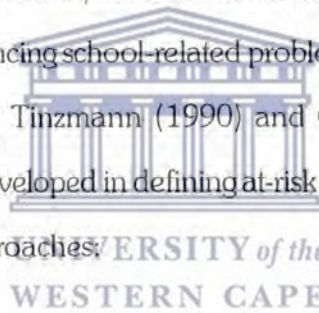
a)   Predictive Approach

Students in identified situations such as living with one parent, being a member of a minority group, and limited English proficiency, are defined as at risk because, statistically, students in these categories are more likely to be among the lowest achievement groups or more likely to drop out of school altogether (Hixson & Tinzmann 1990).

Alva and Padilla (1995) are of the opinion that the academic achievements of Mexican American students are linked to a number of socio-cultural variables. Among the socio-cultural variables associated with academic achievement are the educational and occupational attainment levels of parents, family income and composition, ethnic and language minority status, and the absence of learning materials in the home.

b)   Descriptive Approach

Students who are already performing poorly or failing in school are at risk because they have not been able to successfully take advantage of the "regular" school programme and will most likely fall further behind or drop out. This approach reflects a monitoring strategy. In attempting to get away from the use of predisposing indicators, this approach waits until school-related problems occur and then identifies the student as at risk. A major difficulty with this approach, however, is that identification of a student's problem often occurs after a pattern of poor performance, and the expectations of both teachers and students that it will continue have become severe enough to make successful remediation less likely (Hixson and Tinzmann 1990).

c)   School factors

In addition to these predominant strategies for defining or identifying which students are at risk, there is an emerging body of research that looks at school factors as potential causes of "at-riskness" (Richardson and Colfer 1990). School characteristics that have been identified as hindering the academic achievement of many students include inflexible schedules, narrow curricula, a priority focus on basic/lower-order skills, inappropriate, limited, and rigid instructional strategies. This approach has the advantage of not blaming poor academic achievement on circumstances or characteristics, over which students have little, if any, control (Hixson and Tinzmann (1990).

4.3 SOME FACTORS THAT CONTRIBUTE TO DISADVANTAGE

In international literature factors that are typically connected to educational disadvantage include low socio-economic status, isolation, rurality, low ethnic group status, second language problems, family breakdown, violence, and peer group and gender discrimination (Novick 1978; Rousseauz 1993; Ainley et al. 1995; Zaaiman 1998).

In educational research, family background is often described by referring to the socio-economic status (SES) of the student's family. Graetz (1995) states that SES is often used in research as if its meaning is commonplace, unproblematical and widely understood, while in reality no commonly accepted definition exists. It is thus necessary to briefly discuss this term. Definitions of SES usually concern the overall social position of a family as measured by the parents' economic and social achievements (Flanagan 1993; Ainley et al. 1995). Indices of SES typically use indicators of the educational, occupational and economic achievements of the parents. Research literature indicates that low socio-economic status as defined by these indices is an important contributor to educational disadvantage. Adding other home background factors that contribute to disadvantage to SES measures tends to complicate the interpretation of research results. The simpler parental education-, occupation- and income-based indices are thus mostly used in research (Ainley et al. 1995; Graetz 1995). Ainley et al. (1995) recommend that composite, student-based indices of socio-economic status should be used for research on the effects of socio-economic status on educational outcomes. They suggest that these indices are formed by combining equal weights of standardized scores for parental educational status, occupational status and family wealth.

The socio-economic influences on disadvantaged students are further explained by Ross, Farish and Plunkett (1988), who created an index of socio-economic disadvantage for Australian schools by using detailed census-based social profiles of school catchment areas. A school was regarded as disadvantaged if a high proportion of the enrolled students came from neighborhoods having certain characteristics known to be associated with a low capacity to take advantage of educational facilities. These characteristics included high percentages of persons with low status jobs, low incomes and low formal educational qualifications. Correspondingly, low percentages of residents had high educational attainments, high status jobs and high incomes. Many families were single-parent families due to separation or divorce. More non-fluent English speakers (English as non-mother tongue) were found in the low

socio-economic areas. Although these characteristics were identified for the Australian context, they provide a definition of a potentially typical disadvantaged or low socio-economic status household.

Zaaiman endorses Ross et al's view that it is usually a student's home background which influences the educational opportunities available to him or her. Furthermore, low socio-economic status, indicated by factors such as low parental education and occupation, low income, and large family size, is generally connected to low access to quality education. School factors such as teacher quality, school facilities and the position of the school in a rural rather than an urban area, influence the quality of educational opportunities available to students (Zaaiman 1998:24). Authors such as Rousseaux (1993) and Ainley, Graetz, Long and Batten (1995) stress the fact that low socio-economic status, isolation, rurality, low ethnic group status, non-mother tongue language problems, family breakdown, violence, and gender problems are factors that contribute to educational disadvantage. Zaaiman, Van der Flier and Thijs (1998:99) are of the opinion that disadvantage is a relative concept in the sense that an applicant's level of disadvantage has to be evaluated in relation to that of the other potential students.

The term "rurality" is often coupled with the concept of disadvantage and lower educational participation (Rousseaux 1993). It is also consistently reported that students from urban areas are more likely to be admitted to universities than those from rural areas (Klitgaard 1986). Rousseaux (1993) gives an overview of issues regarding the definition of rurality and the impact of rurality on educational opportunity in Australia. She found in a literature overview that, internationally, there are wide variations in regard to the distinction between rural and urban areas. Rural locations, and populations are commonly defined in terms of population density and size, location and economic activity. However, most regions in large countries contain a mix of both urban centres and rural areas. An assumption that is often

made in defining an area as rural or urban is that there is a direct relationship between the quality and number of educational services available and the population size of the area.

A concept related to rurality is that of remoteness, implying isolation from services (Rousseaux 1993). In remote areas, an assumption can be made that access to services is dependent on the economic ability of the community to meet the costs of overcoming the distance between the user and the available service. It is not easy to construct a working distinction between rural and urban areas. Rousseaux concluded in her investigation that one should keep an open mind regarding the definition of "rural", and design a classification that will serve the user's purpose.

4.4 DISADVANTAGE AND EDUCATIONAL ACHIEVEMENT

In research literature, student home and school background variables are seen as important contributors to educational achievement. The influence of home and school background on educational performance has often been investigated, and some relevant findings are discussed here.

Parental educational and occupational levels are significant positive determinants of educational opportunity and the educational achievement of their children (Bean 1986; Flanagan 1993). The mother's educational level, especially, is seen as an important indicator of level of educational disadvantage (Novick 1978). It has consistently been found that students from low socio-economic backgrounds who attend low quality schools have a smaller probability of high achievement than students from privileged backgrounds who have the opportunity to attend high quality schools (Bean 1986; Snow 1989; Goldstein 1993; Campbell 1994; Ainley et al. 1995). Correspondingly, the poor and the disadvantaged tend to be under - represented in higher education, while students from the middle and upper classes tend to be overrepresented (Klitgaard 1986). Disadvantaged students are more likely to be found in

the lower status courses, and less in the science- and technology-based courses (Blackburn and Jarman 1993).

Riehl (1994) found that North American "first-generation" college students had lower SAT scores, lower high school GPA's lower predicted first-semester grades, and lower academic aspirations than students from families where the parents had higher education qualifications. First-generation students were more likely to drop out during the first semester and less likely to return after the first year. First-generation students do not have the benefit of parental experience to guide them either in preparing for college or in helping them understand what will be expected of them after they enroll. Research also shows that parents from higher SES groups who exemplify more autonomy, intellectual complexity and freedom from job supervision tend to value self-direction and intellectual curiosity in their children. In contrast, when parents' lives are characterized by routine and lack of autonomy, they tend to place emphasis more on conformity rather than on independent thinking, which does not adequately prepare students to succeed in higher education (Flanagan 1993). Flanagan (op. cit.), in an overview of research on gender, social class and achievement, found that, although working-class girls generally perform better in school than their male counterparts, they have lower aspirations for their futures than boys. The occupational aspiration of adolescents from lower SES backgrounds is also more gender-typed than their higher SES peers. Families who experience financial difficulty have been found to be likely to give more support to the further education and career goals of sons than they do to daughters.

Disadvantage affects the process of self-selection, i.e. a potential student's decision to apply to a programme or enroll in a programme after having been selected. For example, Willinghalm and Breland (1982) found in an extensive USA study that three factors play a large role in determining where applicants apply: academic performance, geographic mobility, and financial need. Minority group students were generally less likely to enroll after acceptance

than majority group students. The authors found that the personal qualities of the applicant pools of different institutions were similar to the personal qualities of the selected students. They concluded that the personal qualities of enrolled first-year students are determined to a considerable extent by the self-selection process that creates the applicant pool. In addition, Riehl (1994) found that first-generation students are more likely to choose less selective colleges.

Student background thus influences the student's academic options, academic choices and academic performance. In general, the more disadvantaged students have fewer options and can be expected to struggle more to succeed in higher education than students from privileged backgrounds.

Although terms such as "educationally under-prepared" and "disadvantaged" have been used quite commonly in the past decade, neither of these terms has been accepted unambiguously, for they suggest a deficit on the part of students and are not sufficiently sensitive to the historical conditions which gave rise to the condition they describe. Nor are they sensitive to the power relations through which students are constructed as such (Ndebele 1995).

Ndebele draws attention to the effect of Black students as "other" in a system of education which was designed specifically to exclude them. Consequently their "disadvantage" is conceived as a "pathology" by universities which have not, until very recently, given significant attention to the historical, social and political conditions which have created them. Also, Ndebele is incisive in drawing our attention to the underlying contradictions:

> Now, it is true that blacks are 'disadvantaged'. But "disadvantage" in the current South African context implies that there is an accepted, normal, advantaged standard world outside of which is a minority of marginalized, disadvantaged people: the unfortunate victims of social progress (1995:4).

Ndebele (1995:5) as quoted in Baijnath (1996:61), explains the problem with the term "disadvantage" - how it conceals the history of discrimination, oppression and denial of opportunity during apartheid and pre-apartheid times. What is not contestable however is that the pragmatic reality which confronts us in higher education is that a significant majority of black school leavers have to compete on unequal terms with their white counterparts in the university system. This is also the concern of other writers such as Hofmeyr and Spence (1989) and Morrow (1994).

These arguments are in line with the work of Trueba and Bartolomé (1997) who are of the opinion that even the "most pedagogically advanced strategies are ineffective in the hands of educators who believe that ethnic, racial, and linguistic minority students are at best culturally disadvantaged and in need of fixing, or, at worst, culturally or genetically inferior, and consequently beyond help" (Trueba and Bartolomé, 1997:2).

In terms of this deficit model, Trueba and Bartolomé (1997) state that over the last century, Latino students have been described as "mentally retarded," "linguistically handicapped," "culturally and linguistically deprived," and more euphemistically, "at-risk". The negative influence of this model has been shown in teachers' preference for Anglo students, bilingual teachers' preference for lighter skinned Latino students, and teachers' negative perceptions of working-class parents as compared to middle-class parents (Trueba and Bartolomé 1997:2).

With the run up to independence, both in South Africa and in Namibia, the need to change the profile of students gaining access to higher education so that it more closely resembles the demographic nature of the South African and Namibian society has been widely acknowledged, and black enrolment in higher education has significantly increased. Whether this is a true manifestation of equity in access is debatable. Firstly, growth in Black student numbers in universities has, thus far, largely been concentrated at undergraduate level and in

the Humanities, Social Sciences and Education fields. Black students, and in some cases female students, are still under-represented in a number of key areas such as science, engineering and economics. A second point of concern is that Black student throughput and graduation rates are, on the whole, poor. Not only are dropout rates in higher education unacceptably high but also where students are progressing, it is often as a result of marginal passes, which has a negative impact on the capacity of students to gain real competence and to undertake postgraduate studies and research. Scott in the National Commission on Higher Education (NCHE) (1996) states that:

> What this situation suggests is that the barriers may have shifted, sideways or a little higher, but have not gone away. Providing access to the benefits of Higher Education entails much more than admission. Access without success is largely valueless to the individual concerned and undermines the goals of both equity and national development. Access, in the sense of entry, can therefore not be an end in itself; and providing for equitable access must include providing fair opportunities for success.

Zaaiman (1998) states that the challenge for institutions with large numbers of first generation students is to select them using a procedure which is fair, and to adequately support these students after admission. The Technical Committee 2 (TC) in the National Commission on Higher Education (NCHE) (1996) shares this view in that it expressed its concern that if students are admitted into the system but are not able successfully to complete their studies, they have not, in fact, gained access.

4.5 POSSIBLE REASONS FOR UNDER-PREPAREDNESS

4.5.1 Introduction

In the foregoing section I have tried to show that authors like Baijnath (1997), Zaaiman (1998), Scott (1994), Ndebele (1995) and others, whose writings underline the socio-political climate in South Africa, are in agreement that the main reason for "under-preparedness" in South Africa is the particular history of the country's educational system. The mandate which

South Africa exercised over Namibia, thus necessarily places Namibia in the same category of "under-preparedness" as underlined in the above writings.

However, the previous section also suggests that the solution to the under-preparedness of children and youth stretch should be sought in more than just the educational system of a country. Richardson and Colfer (1990:110) state that the responsibility to find solutions to this problem lies with us all. Lyndon Johnson's well-known comment at Howard University in 1965 is apposite to South African universities admitting students from most schools in the country today: *"You do not take a person who, for years, has been hobbled by chains and liberate him, bring him up to the starting line in a race and then say, "you are free to compete with all the others" and still justly believe you have been completely fair"* (Hall 2001:21).

In the section that follows, I will try to argue why special attention to the problem of the under-prepared student is not only important, but also essential. I will then focus on certain factors, which are often dominant when students are labeled as being "under-prepared".

4.5.2   Why is there a need to focus on under-prepared students?

Quality and equality

Findings by Goodlad (1984) and others underscore the need for a new priority in the school reform agenda that recognizes that true educational quality and equality are inseparable. Goodlad notes the continuing denial of equal access to knowledge for all students in nominally desegregated schools. He states that there is a similar danger if restructuring efforts are driven only by the normative needs of students as a whole without specific and overt attention to the particular needs of those students who have historically been least well-served by most schools.

Hall (2001:23) reminds us that universities in South Africa rarely intervene in the secondary school system, and that most of these interventions have been "research projects conducted

by Schools of Education or short-lived, and often frustrated attempts at remediation". Hall suggests that it is time for a fresh look at the relationship between schools and universities. He says that if present trends continue, a significant proportion of these universities will lose their financial basis of operation.

Escalation of the problem

Each year, increasing numbers of students are entering schools from circumstances and with needs that schools are not prepared to accommodate. As Brown (1996) notes, this requires that increased understanding and sensitivity to these new contexts for schooling should become a more integral part of the "national dialogue" about educational reform than is currently the case.

Restrictive attitudes toward student capabilities

Hixon and Tinzmann (1990) are of the opinion that though attitudes are changing, there are still large numbers of educators as well as members of the public who believe that school failure can be primarily attributed to characteristics of students and their families. They go on to note that, in response to calls for excellence for all students, educators exhibit a "curious resentment, as if they were trying to protect those students who can learn under current conditions from those who can't or won't". This often permits reformers to implement changes in schools without ensuring that conditions exist that would allow more children to succeed.

Finally, it is important that, in designing strategies for school restructuring, educators and others should bear in mind that providing equitable education for all students is also a legal requirement. For these reasons and others not explored here, I believe that concern for those students at the margins of schooling must receive priority attention. It is vital that they and their parents should regain their faith in the importance of education.

4.5.3   Factors contributing to poor academic performance

This section begins with a list of factors mentioned or referred to by South African researchers

involved in educational and academic support programmes, as quoted by Botha (1996:15).

- Very few Black matriculants succeed in passing mathematics and science subjects.
  According to a study by Nyamapfene and Letseka (1995:159) problems experienced
  by students are particularly acute during the first year. The reason for these problems
  in the first year is the under-preparedness of students, reflecting their secondary
  schooling (Baijnath 1997; Zaaiman 1998).

- For many African students, English and Afrikaans are only their second languages
  and this limits their ability to cope with material at tertiary level, which is often very
  demanding (Pavlich and Orkin 1993:1-4).

- Unequal funding, under-qualified teachers, pupil-teacher ratios and ideological
  constraints have contributed to the backlog in Black education (Pavlich and Orkin
  1993:1-3).

Sharwood (1998:4) agrees with the above-mentioned facts, and says that these are not only

related to the inadequate educational systems but also to the socio-economic circumstances

of these students, all of which leave the student at a disadvantage in tertiary study especially

by comparison with other sections of society. According to Sharwood, the Advisory Council

for Universities and Technikons (AUT) (1992) has listed the main reasons why students

struggle to bridge the gap between secondary and tertiary education. These factors are

discussed below.

4.5.3.1 Academic factors

1.   The students' intellectual capacity has not been fully developed, specifically their
      communication and in numeracy skills as well as their level of abstract thinking. In
      most cases, English second language (ESL) speakers teach students. Hunter (1992) in
      Sharwood (1998:4) supports this statement and says that this leads to a lack of linguistic
      competence. Hunter therefore believes this is one of the reasons why many pupils do
      not develop the Piagetian level of abstract thinking.

2.   Students use ineffective study methods and habits, which include insufficient planning and poor time management, mainly because they have received no training in these methods.

3.   Coleman (1993) in Sharwood (1998:5) states that students read very slowly and have low levels of comprehension.

4.   Most of the students are first generation students whose parents have a fairly low level of education. This results in a lack of support for the student at home.

5.   Many students have weak listening skills, which are hampered by the fact that the students are studying in a second language. Coleman (1993) emphasizes the fact that students have trouble understanding the accent of the lecturers who may not come from the same cultural background as the students.

6.   A lack of basic general knowledge hampers many students from being able to make associations between their existing knowledge and what is learnt.

7.   In answering assignments and examination questions many students have difficulty in demonstrating mastery of the topic. They find it difficult to structure their answers and to use the required academic language.

8.   Students have inadequate competencies in the natural sciences, particularly in physical science and mathematics. This is compounded by unqualified and under - qualified teachers and the lack of support resources such as laboratories and computers at schools (Sharwood 1998:4-5).

4.5.3.2 Non-academic factors

Sharwood (1998:5-6) lists the following as non-academic factors, which according to him also contributes to the weak performance of many students.

1.   There is a lack of an effective selection mechanism to identify the students who have the capacity to succeed (Sharwood 1998; Zaaiman 1998).

2.   There are large numbers of first year students and this makes it difficult to identify those with problems.

3.   Many students choose courses which are not always within their field of interest, or capacities - often, government bursaries only cater for those with an interest in science subjects.

4.   Students lack study skills, which includes insufficient planning and inadequate time management.

5.   Students suffer from domestic problems, which include overcrowded homes.

6.   Students have insufficient funds to pay the course fees, buy books, and afford regular transport.

7.   Transport is also a major problem. Transport can be unreliable and students are often late for classes.

8.   Some students are affected by drug and alcohol abuse.

The list is by far not exhausted, and one must take note that it is not possible to attribute under-preparedness to any single variable, but that it is a complex set of factors all contributing in rendering a young person helpless. Furthermore, students have a different perception of what higher education actually is. At school the students could rely on memorization and rote learning whereas higher education requires a lot of self-study and demands critical reasoning and the application of theory. With regard to non-academic problems, Walters (2001:11) argues that psychosocial and medical problems can also hamper studies. HIV/AIDS is not only a health issue; it should also be seen as a developmental issue that affects organisations as well as individuals. She makes a plea to higher education institutions to consider in their planning, both the direct and indirect impact of AIDS. These include loss of skilled labour, loss of work time due to illness, and loss of motivation to study and teach.

4.5.3.3 Problems at school

According to Sharwood (1998:6) many academic problems have their origin at schools. The AUT (Akademise Steun-en Oorbruggingsprogramme) (1992) report lists the following as the main factors that affect the students:

- Many of the teachers are inadequately trained for the classes that they have to teach.

- In many cases, classes are of an unmanageable size.

- Most schools have inadequate physical facilities.

- In many cases the pupils as well as the teachers are unmotivated. This leads to the absence of a learning culture.

- There is a lack of pre-primary schooling so that many pupils of school going age are not yet ready for school.

- Many schools have been affected by political strikes, boycotts, and intimidation in the past. (Although this was not generally true in northern Namibia, the liberation struggle led to significant political disruption in the schools).

Finally, in a review of educational research in the USA during the 20th century, it was found that the single most significant variable in school performance was teacher knowledge and communication. Although socio-economic status is also an important factor and was found to be the second most significant variable, things like school resources and structures were less significant (Cohen and Barnes 1999).

4.5.4 The Gap between School and University

In a survey conducted to evaluate Academic Support Programmes at the University of the Witwatersrand, student perceptions of the problems they were experiencing were centred on the gap between school and university. Agar (1990:439) indicates three broad areas:

1.   students' academic backgrounds;

2.   students' past and present socio-economic and political backgrounds; and

3.   the university environment and structure.

The following table, as compiled by Agar (1990:439), breaks down the above-interrelated areas into specific items:

Table 4.1

Students' Perception of the Gap between School and University (Agar 1990:439)

Students' perception of the gap between school and university can be expressed in terms of differences in:	
01	Size of the institution
02	Teaching styles
03	Individualized attention
04	Teacher expectations of learning styles
05	Educational resources
06	Language
07	Standards (content - size and complexity)
08	Socio-economic necessities and expectations
09	Peer group support

The above table reiterates the fact that students have differences in their perception of higher education. In this case the difference in size between school and university was indicated as the main issue especially for students who come from rural areas.

De Bard, as quoted in Payne (1989:23), states that the lack of preparation prevents students from ultimately achieving their academic and career potential. The major issue at stake here is the gap between high school and college programmes. Payne (1989:25) advocates strategies for coping with the lack of articulation. He suggests the following recommendations could be adapted to a variety of institutional contexts:

- Enhancement of communication between high school and college in terms of what is expected of freshmen on cognitive and affective levels;

- Establishing co-operative efforts between high schools and colleges in the shape of remedial or developmental programmes to correct deficiencies;

- Researching the gap between school and college to identify skills that can be reinforced. Critical thinking skills are of particular importance.

In spite of all these problems, there are some pupils who emerge from the system and although not yet ready for tertiary study, should be given every opportunity to achieve their goals because they have the potential to succeed. In a document titled *"What Works to Improve Poor and Minority Student Achievement"*, Stoel et al (1992:11) point out the following:

> That, if properly educated and supported, disadvantaged and minority students can be as successful in school and college as anyone else, and that despite evidence that it is best to start early in preventing problems, it is really never 'too late' to reach young people or adults. Finally, when colleges get involved with young people and the schools they attend, pronounced benefits accrue not only to students but to both institutions.

4.5.5   Constructing an effective educational environment

The development of school and college environments that meet the needs of all students is based first on acceptance of the fact that, for the most part, traditional approaches have failed the student. Hixon and Tinzmann (1990) offer for consideration three strategic initiatives: (a) redefining the cultural norms of the school, (b) refocusing the content, and methods, and (c) attending to the personal/affective needs of students and staff. I would like to add a fourth strategy as suggested by Stoel et al., (1992), namely, establishing new relationships between the school and colleges.

a)   Redefining the Cultural Norms of the school

While there are numerous elements that comprise a school's culture, there are several that are of particular relevance both to reconnecting under-prepared students and to reducing the

likelihood of failure for all students, current and future. According to Hixon and Tinzmann (1990), the first and most important is the issue of redefining the standards by which school staff and the broader school community measure success. More specifically, the following are examples of the types of indicators of success or progress that schools might include in an annual report to the staff and community:

- A survey of student and parent attitudes toward the school in terms of the quality of educational and related services provided; the frequency and usefulness of communications between teachers and students, and the school and parents; and the degree to which both students and parents understand the goals of the school and their roles and responsibilities in helping to achieve them.

- An assessment of the degree to which students from all racial, ethnic, and socioeconomic groups, and of both sexes, are actively involved in all of the school's educational and extracurricular activities;

- A report on patterns of attendance and the school's initiatives to retrieve regularly absent students.

- An assessment of the degree to which students with special support needs (limited English fluency, etc) are integrated into the general educational programme.
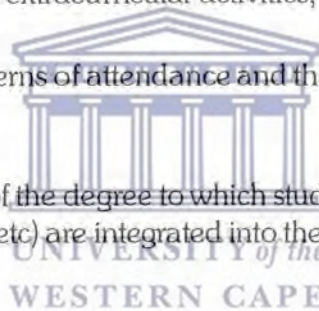
Second is the idea of valuing all students. Examples here include: (a) ensuring that the images and symbols throughout the school reflect the membership, participation, and contribution of all "categories" of students, (b) sensitising all staff, visitors, and students to the importance of the language used to describe the staff, students, and parents, who are part of the school family, and the community in which the school is located (Hixon and Tinzmann 1990).

Third, the culture of the school encourages and supports the active involvement of all students, parents, and members of the community in supporting and participating in the teaching programme. Peer tutoring, parents as tutors, role models, and resource persons, community service projects, adult education courses and seminars, and home visits by all school staff are just some of the ways of creating a culture of participation, belonging, and involvement across the entire school community (Hixon and Tinzmann (1990).

b)   Attending to Personal/Affective Needs of Students and Staff

Hixon and Tinzmann (1990) state that while a close interpersonal relationship between students and staff is an important element in any successful instructional relationship, for under-prepared students such relationships are essential. For many disadvantaged students, their self-concept and sense of confidence derives largely from their relationships with others. Teachers and other school staff, therefore, are primary sources through which they make judgments about themselves as learners and about their potential to be successful in educational environments. In addition, because many disadvantaged students come from dysfunctional home environments, school staff may well be the only competent and caring adults with whom they have regular contact.

Beyond these interpersonal relationships, however, disadvantaged students are more likely to have a wide variety of personal circumstances which can interfere with their ability to give full attention to educational matters. Schools should establish either in-house student support teams or collaborative relationships with other social service agencies that can work with students to resolve non-school problems.

c)   Establishing New Relationships between Schools, Colleges and Universities

Stoel et al. (1992) state that for nearly three decades now, American colleges and universities have undertaken a variety of strategies to increase the access and success of students, particularly of under-prepared ethnic and economic groups. Partnership programmes recruit high school students who have the potential to successfully complete postsecondary education but who might have difficulty gaining admission due to poor preparation, poor schools, or lack of motivation.

Partnership programmes can be instrumental in helping to demystify the aura of tertiary education that often inhibits first-generation college-goers. Students are brought to the college

or university campuses for various academic and social activities. Interaction with college students and faculty, as well as the actual on-campus experience, helps students feel more at ease with the college environment. Through these activities, the college mystique is diminished, and students in the programme see themselves as future college students. College life therefore becomes a reality for them.

d)   Refocusing Instructional Content, Strategies, and Priorities

A positive, nurturing, and inclusive school culture is a necessary, but not wholly sufficient, condition for educational success. In the final analysis, it is the educational experiences to which students are exposed and in which they become involved, that determines the success or failure of their schooling. According to Hixon and Tinzmann (1990), a prerequisite for establishing contexts for academic success is that school/college staff must be comfortable and confident with respect to the apparent diversity that students bring to the classroom.
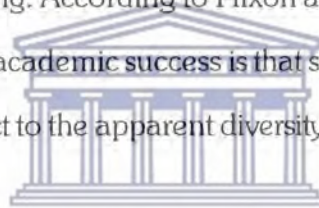
School learning that is responsive to our society ought to ensure that students will be able to actively construct knowledge, solve problems and make decisions, and collaborate with fellow learners and workers. Disadvantaged students need to attain these goals of learning if they are to develop fully as individuals and to function as contributing citizens in our society.

Gee (1990: xv as cited by Boughey 2000:280), an exponent of the socio-cultural understanding of language and language use, make use of a metaphor of a bar in explaining the concept of a discourse:

> Imagine that I park my motorcycle, enter my neighborhood "biker" bar, and say to my leather-jacketed and tattooed drinking buddy, as I sit down: "May I have a match for my cigarette please?" What I have said is perfectly grammatical English, but it is "wrong" nonetheless (unless I have used a heavily ironic tone of voice). It is not just what you say, but how you say it. In this bar, I haven't said it in the "right" way. I should have said something like "Gotta match?" or "Give me a light, would'ya?".
>
> Now imagine that I say the "right" thing (Gotta match?" or "Give me a light, would'ya?"), but while saying it, I carefully wipe off the bar stool with a napkin to avoid getting my newly pressed designer jeans dirty. In this case, I've still got it wrong. In this bar, they just

don't do that sort of thing: I have said the right thing, but my "saying-doing" combination is nonetheless wrong. It's not just what you say or even just how you say it. It's also what you are and what you do while you say it. It is not enough just to say the right "lines", one needs to get the whole "role" right. In this bar, the biker bar, I need to play the role of a "tough" guy, not a young urban professional relaxing on the weekend. Other bars cater to different roles, and if I want to, I can go to many bars so long as I play many different roles.

According to Boughey (2000:280), the members of the discourse are the regular drinkers at the bar: people who are welcomed there because other regular drinkers see that they share the same values, feelings and ways of acting and speaking as themselves. In order to be accepted as a regular drinker, newcomers have to demonstrate that they know how to act and speak like the people who are already there, and that they share the same feelings and values.

Boughey (2000:181) extends Gee's metaphor to the university setting and suggests that one should see the university as a bar. The regular drinkers at the university bar are the academics: the professors, the lectures and the postgraduate students. New students come and stand at the bar and drink there but, unless they can show themselves to be "the same" as the regular drinkers, they will not be accepted. In order to be "the same", they have to speak and act in the same way as the regular drinkers and, importantly, share the same feelings and values as the regular drinkers. Boughley states that it is important that they share the same feelings and values as the regular drinkers because, unless they do, they will not really be able to speak and act in the same way but, sooner or later, their pretence will be exposed. According to Lave and Wenger (1991: 42) people who are not taking part directly in a particular activity learn a great deal from their legitimate position on the periphery. "It is a mistake to think that important discourse in learning is always direct and declarative". This peripheral participation is particularly important for people entering the culture (of the university).

It was said earlier under 1.5 that academic access implies the ability of a higher education system to create an environment whereby learners can enroll in, persevere through, and graduate out of the various programmes and fields of study, they have enrolled in. Now, in

order for newcomers to join in, they must be fairly confident that they can enter this discourse community, this new apprenticeship, because they have already been exposed to some of the conventions of practice that this "community of practice" expects of them.

Brown, Collin and Duguid (1989:41) state that cognitive apprenticeship supports learning in a domain by enabling students to acquire, develop, and use cognitive tools in authentic domain activity. Similarly, craft apprenticeship enables apprentices to acquire and develop the tools and skills of their craft through authentic work and membership in their trade. Through this process, apprentices enter the culture of practice. So the term apprenticeship helps to "emphasize the centrality of activity in learning and knowledge and highlights the inherently context-dependent, situated, and acculturating nature of learning". Furthermore, apprenticeship also suggests "the paradigm of situated modeling, coaching, and fading whereby teachers or coaches promote learning, first by making explicit either tacit knowledge or by modeling their strategies for students in authentic activity". Then, teachers and colleagues support students' attempts at doing the task, and finally, they empower the students to continue independently. Moreover, advanced graduate students in the humanities, the social sciences, and the physical sciences acquire their extremely refined research skills through the apprenticeships then serve with senior researchers. It is then that they, like all apprentices, must recognize and resolve the ill-defined problems that issue out of authentic activity, in contrast to the well-defined exercises that are typically given to them in text books and on exams throughout their earlier schooling. It is at this stage, in short, that students no longer behave as students, but as practitioners, and develop their conceptual understanding through social interaction and collaboration in the culture of the domain, not of the school.

According to Boughley (2000:281) the "massification" of tertiary education, particularly where that massification involves the establishment of a multicultural, multilingual student body in place of one that is monoculture and monolingual, has tended to cloud the issues involved in understanding the achievement of academic literacy as the goal of a university career. South

African universities, with their unjust history of apartheid, are places where the massification of tertiary education, brought about by the 1994 democratic elections, has brought different ways of thinking, acting, valuing and speaking most clearly into confrontation with each other. The disruptions in education caused by the struggle of the late apartheid years means that many of the young people currently seeking access to tertiary institutions arrive with ways of thinking and being that are different to those staff are accustomed to. The fact that the overwhelming majority of those students are speakers of English as an additional language supports the tendency, within the institutions, to name the problems students encounter as they begin working, at tertiary level, "language problems". Solutions to these "problems" then centre on providing remedial instruction in English language and the language-related skills of reading and writing in special compulsory courses run by "language specialists". Low student attendance rates on these courses raise the question of their perceived value to the very people they are intended to serve.

Complaints from academic staff that students still cannot read and write even after they have completed language courses, is a clear indication that academic staff are still focusing on attempts to "fix" problems with student learning, and which is according to Lea and Street (1998:159) treated as a kind of pathology. The theory of language on which it is based emphasizes surface features, grammar and spelling. Its sources lie in behavioural psychology and training programmes and it conceptualizes student writing as technical and instrumental. In recent years the crudity and insensitivity of this approach have led to refinement of the meaning of the "skills" involved and attention to broader issues of learning and social context, and have moved to what Lea and Street (1998) have termed the "academic socialization" approach. From the academic socialization perspective, the task of the tutor/adviser is to induct students into a new "culture", that of the academy. The focus is on student orientation to learning and interpretation of learning tasks, through conceptualization, for instance, of a distinction between "deep", "surface" and "strategic" approaches to learning.

Although understanding of the concepts of discourse and literacy such as Gee's (1990); Lave and Wenger's (1991) Brown, Collin and Duguid's (1989) and Lea and Street's (1998) are not new, they are important in the current South African and Namibian contexts as they facilitate richer appreciation of students' "problems". If the aim of redressing historical inequality is to be achieved, such understandings are of crucial importance not only because they do not distinguish between students along old racial lines, but also because they hold the promise of providing epistemological as well as formal access to the academy to those who were long denied any access.

4.6 CONCLUSION

From the discussion in this chapter one can conclude that disadvantage, as determined by student home background and educational opportunities, lowers students' chances of entering and succeeding in higher education. Students who attended the previously Black-only schools in South Africa and also in Namibia did not have adequate opportunities to develop their academic potential, compared to students who attended the previously White-only schools. The former can rightfully be regarded as having been educationally disadvantaged. Zaaiman (1998) points out that one may suspect that these students come from lower SES families than White students. In addition, the high percentage of ill-equipped teachers also contributes to students being disadvantage (see appendix C, table 5.3). Furthermore, the political history of South Africa means that the family SES is not necessarily the result of a lack of ability to succeed in higher education. Existing undeveloped potential must be identified and can be successfully coached and developed through the means of Access Programmes. The challenge for institutions with large numbers of first generation students is to create a conducive environment whereby students can enroll in, persevere through, and graduate out of the field of study they have enrolled for. The increasing role of the teacher as a master to apprentices, and the teachers' use of authentic domain activity as a major part of teaching will perhaps, once and for all, dismiss George Bernard Shaw's insulting criticism of teachers, "He who

can, does. He, who cannot, teaches." His comment may then be replaced with Alexander Pope's hopeful "Let such teach others who themselves excel" (Brown et al. 1989:43).

Finally, confronted with the conditions of adversity in attempting to provide access to higher education for many eager, but yet under-prepared, students and the effects of cumulative discrimination over the years, the questions, which arise are: Why was the UAP established and what form has it taken? What were the difficulties that students experienced in bridging the gap between school and university? What are the limits and possibilities of the UAP? And, most importantly in terms of my thesis, what educational conditions must be established to foster success in the UAP at the UAP at the University of Namibia, and which conditions should be avoided?

It is to a detailed account of attempting to facilitate the UAP within the university setting that I wish now to turn.

CHAPTER 5

CASE STUDY OF THE UNIVERSITY OF NAMIBIA'S ACCESS PROGRAMME

5.1 INTRODUCTION

It has been stated in chapter 1 that the University of Namibia was urged by its Northern Campus Advisory Committee to implement an access programme in the northern part of the country, focusing on Mathematics and English for young school leavers whose IGCSE results failed to qualify them for entry into the University or the Polytechnic of Namibia. After thorough consultations with officials at the Directorate of Education in Oshakati and with concerned individuals from the northern region, the University of Namibia introduced an access programme to prepare students for the Science Faculty.
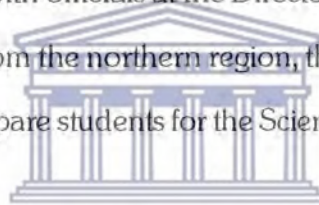
The UAP is in its fourth year of operation and this case study attempts to understand the UAP within its context, and to identify and critically analyse factors which contribute to its success and those which hinder it, in order to draw conclusions and guidelines for general application in Namibia and elsewhere.

The research questions that need to be answered in this chapter are:

- Why was the UAP established and what form has it taken?

- What were the difficulties that students experienced in bridging the gap between school and university?

- What educational objectives must be set to ensure that the majority of students succeed in the programme?

- What were the successes and failures of UAP and why?

I will begin this chapter by answering the first research question: *Why was the UAP established and what form has it taken?*

5.2 WHY WAS THE UAP ESTABLISHED AND WHAT FORM HAS IT TAKEN?

My involvement with the UNAM Access Programme (UAP) started towards the second half of 1998, when it was decided that the Department of Continuing Education, at the Centre for External Studies, should take responsibility for the co-ordination of this new programme. As head of the department, I saw this as an opportunity to increase both the professionalism and diversity of my continuing education outreach programmes.

The role I adopted right from the outset was that of participant-as-observer. As member of the Northern Task Force and co-ordinator of the UAP during its initial stages, I attended all the meetings and often had to give feedback about the progress of the programme. Apart from being responsible for the recruiting and selection of the first intake of students into the programme, I was also responsible for managing the finances during the first year. Both the tutors and the students were made aware of the nature of the study, and I was therefore happy to be involved in the tutoring of study skills during the vacation schools. During the second year however, I realized that as a researcher, I never had the opportunity to observe the students' performance in class apart from my own, so it was agreed that I could sit in on all the classes during the vacation school held in Windhoek.

In an attempt to answer the first research question: Why was the UAP established and what form has it taken, I was compelled to study various documents which related to the historical development of UNAM as well as the establishment of the UNAM Northern Campus. Hitchcock and Hughes (1995:219) reminds us that "the more recent one's period of study, the greater may be the problem of availability and access to documentary sources". This was often the case with this study. The particular problem that I identified here was access to unpublished

material and this necessitated a considerable amount of effort to contact key figures at UNAM and the Ministry of Basic Education and Culture, to obtain access. "These are precisely the kinds of problems that face all users of documentary records and, indeed, all fieldworkers, namely, access, availability and the scope of materials involved" (Hitchcock and Hughes 1995:219).

I mentioned earlier that my involvement with the UAP started towards the second half of 1998. Long before that, many in the north had expressed the need for an Access Programme, as educators were concerned about the large number of unemployed youth. The community in the north was especially concerned about learners who completed their studies, but could not be accommodated by the Namibian College of Open Learning (NAMCOL)[1]. NAMCOL caters both for those who have failed and those who never took the Grade 10 or senior secondary examination.

While members of the Northern community were of the opinion that UNAM, and particularly the Northern Campus[2], should explore new avenues to assist prospective students who could not meet the admission requirements to enter university studies, the Chancellor of the University of Namibia, President Sam Nujoma, called upon UNAM (New Era, 28/8/98:7) to find ways to resolve Namibia's problems related to the training of competent professionals essential for the country's successful participation in a competitive global economy. Tötemeyer (1998:11) states that Nujoma's statement is in line with the White Paper on Higher Education in South Africa, emphasising that higher education institutions must become responsive to what are

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[1] NAMCOL, which became a parastatal in 1998, was established by the Government with the aim of providing education at all pre-tertiary levels to the huge numbers of out-of-school youths and adults who do not have or did not complete formal schooling especially at junior and senior level. NAMCOL currently caters for more that 17 000 learners in Namibia, most of whom are studying through an open learning system. Thus, in theory at least, NAMCOL provides courses which give access to tertiary education. In practice its main emphasis is on students who have been forced out of secondary education at an earlier stage and therefore the number likely to qualify for entry into higher education is limited.

[2] The Northern Campus, located at Oshakati, predominantly serves the four northern regions Omusati, Ohangwena, Oshana and Oshikoto. According to projections by the Statistical Office f the National Planning Commission (1994:6), based on the official statistics of 1991, the total population of Namibia in 1996 was 1,645,000 of which 715,424 (UNDP, 1996:86) lived in the four northern regions. This equals 43,48% of the total population. The Northern Campus thus potentially serves nearly half of the Namibian population. It was established in 1998, after various consultations with the lcal community and needs assessment studies. At this point it expanded UNAM's programmes offered in the North beyond those offered by CES by open and distance learning and the full-time training programme for nurses offered by UNAM's Faculty of Medical and Health Services. The Access Programme has been one of the major elements of this expansion.

seen as the needs of society and, particularly, the economy. Nujoma referred to the results of the UNDP Human Development Report (1996:73), which stated, "Namibia is one of the worst performers in the world in terms of human development levels relative to national income". Some of the problems that the Report identified are the dualistic economy prevailing in the country and the legacy of apartheid, which limited the educational levels, health care, and access to resources for the majority of the population, particularly in the north. National resources were concentrated in the hands of a small minority rather than being used to improve the living standards and human development levels of the indigenous majority. Consequently, there has always been a backlog of human development from which the northern regions continue to suffer.

Tötemeyer (1998:7) states that according to the findings of the draft 1998-2010 National Human Resource Plan (The Namibian, 21/8/1998:3), Namibia's existing human resource deficit is of alarming proportions. The plan puts the Namibian labour force at approximately 548,000 people of whom 35 percent are said to be unemployed. This is an unacceptable rate. Most of the unemployed have little education and poor skills. Altogether 38 percent of the unemployed are youngsters, of 15 - 24 years of age. The plan comes to the conclusion that Namibia has a severe shortage of highly qualified professionals such as engineers, doctors, geologists, economists, agronomists, chemists, accountants and scientists.

The first proposal to establish an Access Programme came from the Director for External Studies at UNAM, Professor Tony Dodds, just after his appointment as director in 1996. In an interview with Professor Tony Dodds (November 2000), he stated that the proposal arose from discussions he held with education officials in Ondangwa in the early months of 1996. The proposal was only formalised early in 1997 when the Polytechnic and UNAM started to realize that neither of them were increasing their intake of science students to the level they wished for, "so this was where the need to fill up places and the need to concentrate on

Science and Maths came in". Dodds said that they started to look in particular at the combination of English, Mathematics and Science. The Dean of the Faculty of Humanities and Social Sciences convinced top management at UNAM to concentrate on trying to improve the IGCSE grades of those students who did not qualify for entry into UNAM or the Polytechnic. His argument was that in the light of the mature age entry examination experiences, the university lacked specialist expertise to develop pre-tertiary examinations of its own. Why not simply rely upon one, which was already tested? There was also a realisation that the majority of UNAM students come from the central and southern areas of Namibia and that the north was under-represented. Also the poor teaching of Mathematics and English, and the poor standard of English, a national problem but particularly evident in the North, hampers many students in the North. Furthermore, if the university is to be successfully involved in continuing and adult education activities then a centre should offer programmes that are needed by the population of the region. Therefore it was felt that there was a particular need for Access Programmes in the Ondangwa educational regions, based at the Oshakati Centre, and that UNAM's new campus there should play a significant role in establishing such programmes.

At about that time UNAM, with particular input from the Director of the Language Centre at UNAM, who was made co-ordinator of the Northern Project and was given responsibility for planning the Oshakati Campus, started to negotiate successfully with the Ford Foundation for support for the Northern Campus. As a result of all these factors, interest in the Access Programme focused upon the north of Namibia. At the outset it was intended that other institutions should be part of such a programme and should join in discussions. A series of meetings took place and TUCSIN[3] and NAMCOL were invited, in consultation with the University and the Polytechnic to try to work out a plan for an Access Programme that would

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[3] The University Centre for Students in Namibia (TUCSIN) was established in 1978 with the expressed aim of supporting higher academic education, particular in the natural sciences, on an individual and informal basis. The idea was to try to prepare groups of 20 to 30 students for university or technicon studies every year. The first series of Complementary Courses started in 1984, with the purpose of helping students to improve upon their academic performance and further their intellectual skills. The ultimate aim was to help Namibian students to gain acceptance to and achieve success at tertiary institutions. Today, Complementary Course graduates can be found in a wide range of professions (Director: TUCSIN April: 1999).

link their resources with those of the university. The proposal that emerged was really an extended TUCSIN reproduction in the north, something very similar to what they are currently doing in Windhoek. Dodds said that when they looked at the cost involved and the proposed methodologies being suggested, it was felt that this was not the most appropriate way to go and that it was not going to happen fast enough and on a large enough scale to meet the needs. Furthermore, it was going to be very difficult to get all the various agencies to work together towards one goal.

Dodds recalled a meeting he had with Mr Ankama, Permanent Secretary for the Ministry of Higher Education, where Mr Ankama expressed his concern on behalf of the Minister that UNAM was getting involved in pre-tertiary issues which did not concern them, for example, the proposed Access Programme. Mr Ankama suggested that UNAM should work intensively with the existing agencies which are responsible for Access Programmes in Namibia. Dodds said that to some extent that was why these meetings between TUCSIN and NAMCOL became so important. However, out of them emerged a decision to go ahead with the university plan, with UNAM taking a leading role at least initially irrespective of the concerns expressed by Mr. Ankama. In the end, the argument for UNAM going ahead on its own was buttressed by the agreement that some of the already proposed Ford grant to the Northern Campus could be used to support the programme.

It was at that point, after almost a year of negotiations about who should take charge of the programme, which methodology should be used, and about available resources and the cost effectiveness of such a programme, that I came on board.

5.2.1   Rationale for the UAP

Since independence, great efforts have been made by the Ministry of Basic Education and Culture to improve access to primary and secondary education for children in the Ondangwa East and Ondangwa West Education Regions, the most disadvantaged regions in the past.

The imperative of educational reform and transformation was underlined during the very early days of independence. Policy was explicit on the place of access in the process of educational reform, stating clearly what is meant by providing access:

- To provide education for all, we must expand access to our education system.

- For that, we need not just more schools but schools and other education programmes where learning is truly accessible to all Namibians (Ministry of Basic Education and Culture 1993:34).

The first step was to make universal basic education open to all with the emphasis on "expanding capacity". Capacity expansion included physical accessibility, adequate staffing, and sufficient physical facilities. Expanding access also aimed at reducing or indeed eliminating economic, social, racial, ethnic, religious and cultural impediments that have hitherto defined and limited access to education in Namibia (Ministry of Basic Education and Culture 1993:34).

The Northern Campus Advisory Committee hoped that the establishment of the UAP would contribute both to the strengthening of English language competency and would assist students to study Mathematics with confidence. The course would not only contribute to the improvement of student selection into UNAM's programmes, but would also develop the students' general knowledge and independent study skills as well as developing their leadership skills through the participative approach that the course would adopt. Finally, the course would also help to establish permanent programmes in association with other agencies, and to develop a prototype that could be replicated elsewhere in the country (UAP Proposal, 1998).

It was decided from the outset that the UAP would focus on Mathematics and English for school leavers whose International General Certificate of Secondary Education (IGCSE) results did not qualify them for entry into the University or the Polytechnic of Namibia. This recognised that inadequacies in those two subjects were both the major cause of failure to

gain entry and the major cause of problems experienced in the first year at UNAM for those who did manage to gain entry. It was therefore decided that the programme would embody the following features:

- Students should master the basic concepts of Mathematics, the language of the science;

- Student's communicative competence in English would be addressed;

- Students would learn how to use effective study methods;

- Students would be introduced to science subjects during their vacation schools;

- Students would re-register for the IGCSE exam at the end of the year; and

- Students would be guaranteed deferred entry, should they comply with the admission requirements of UNAM at the end of the programme (UAP proposal, 1998).

The UAP would follow the IGCSE[4] (Extended) curriculum for the following two subjects:
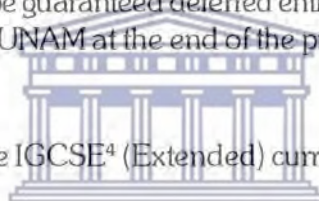
IGCSE Mathematics

IGCSE English

The programme would be called the UAP.

5.2.2   Stages of development of the UAP

Apart from the actual negotiations and proposal writing, which should be seen as preparation for the programme (see 5.2), three definite stages can be identified in the development of the UAP. The first stage involved the scrutinizing of the proposed NAMCOL study materials for the programme as well as the recruiting of tutors and students for the programme. The second

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[4]IGCSE can be entered at either CORE or EXTENDED level. If a candidate has entered at Core level only Grades C-G will be available whilst for the EXTENDED level only Grades A-E (Van der Merwe 1998:60).

stage involved the launching of the pilot study and this together with stage one, provides the setting for this study. The third stage concerns the recruitment of new Voluntary Service Oversees (VSO's) as well as the expansion of the programme to other regions in the country.

Stage 1 (November 1998 - March 1999)

The first stage of the original programme started in November 1998 with a one-week long workshop in Oshakati. This workshop determined the applicability and validity of the study materials that were proposed for the UAP. The objectives of the workshop for members of the Northern Campus Advisory Committee were:

a)   To scrutinize the IGCSE curricula for English and Mathematics to identify any needs for curriculum enrichment to met UNAM and the Polytechnic of Namibia's entry requirements;

b)   To examine existing open learning materials, both from NAMCOL and elsewhere to assess their suitability and their comprehensive coverage of the agreed curriculum;

c)   To identify the need for supplementary materials and to plan for and initiate their development and production; and

d)   To decide upon the admission requirements and student fees for the programme (UAP proposal 1998).

The following section will highlight some of the main discussions and decisions that took place during the workshop.

a)   **Mathematics**

During the first day, the group responsible for scrutinizing the mathematics materials listed the topics covered in the IGCSE Extended course and identified specific areas in the course material which according to them often cause confusion amongst students and might therefore lead to unnecessary failure:

- Interpretation of graphs: The group stated that students normally have problems with the construction of the scales applied and the plotting of points;

- Indices: The group stressed the importance for students to know the basic rules and learn to apply them correctly;

- Formulating word problems: This, according to the group, is a major problem because language interpretation play such an important role. Students must first formulate one problem and then be able to simplify and solve; and

- Sets - lack of previous knowledge is problematic and proper understanding of language and terminology is necessary (Workshop report, November 1998).
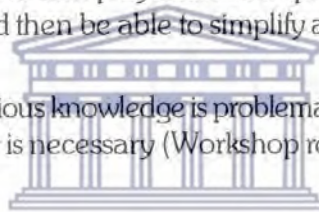
During the second day, the maths group studied the following modules:

1.   UCLES, IGCSE maths modules;

2.   NEC, Intermediate and Higher Maths modules; and

3.   NAMCOL, IGCSE modules 1-6.

It was decided that NAMCOL materials were adequate and appropriate for the learners. However, the exercises and assignments were found to be too simple and in many cases incorrect. (This was a very sensitive issue, since many Namibians were doing their Grade 12 IGCSE examination through NAMCOL, and had to rely on these defective study materials). During the remainder of the week, (and for most part of stage one) the group prepared additional exercises and assignments which would replace the exercises and assignments in the study guide.

b)   **English**

The group assigned to revise the English materials tried to identify possible reasons for learners' failures to achieve a high enough level of English to pass the IGCSE examination. They realised that this was related to the decision, after independence in 1990, to use English as the official medium of instruction from Grade 4 onwards. With little time for preparation, almost all of Namibia's teachers had to adjust to teaching in and through English, a language in which they had, and in many cases still have, a low level of proficiency. The very abrupt switch to English medium teaching did not permit a nation-wide programme for the upgrading of teachers' English; many rural teachers, in particular, faced and continue to face a situation where contact with, and exposure to, English in any form is extremely limited both for themselves and their learners, thus restricting English to the "artificial" classroom environment. There was no doubt a severe underestimation of the trauma that a switch of medium would cause the country's teachers, especially when added to the radical changes being made to every fundamental element of the educational system (syllabuses, textbooks, means of assessment, etc.) (Ministry of Basic Education and Culture 2000:7). The following points of concern were identified:

- The problem starts at the junior secondary level as the content is different from the senior secondary content.

- The learners do not use English outside the classroom; they only use their mother tongue.

- Teachers do not teach grammar.

- They have problems in interpreting both essay and comprehension questions.

- The topics of the examination papers are unfamiliar.

- Teachers do not use any supplementary materials.

- Teachers do not organise groups according to abilities and therefore the learners are not given activities appropriate to their level.

- There are very few extra-curricular activities after school such as drama, poetry clubs, debates, listening to tapes or cassettes, etc.

- Most of the learners hate writing and are also poor at writing essays in Oshiwambo. They are not told how to write an essay and are given very little preparation for writing. They need to learn how to approach the writing of an essay.

- Learners cannot summarise. They just pick out sentences from the text without even changing the pronouns sometimes.

- They need more practice in speaking to gain confidence (Workshop report, November 1998).

The NAMCOL English materials were examined to see how far they would satisfy the identified needs of the students and what extra materials might be needed to supplement them. The group agreed that the following gaps needed to be filled:

Reading

Reading skills - especially skimming and scanning. There are very few pre-reading exercises to encourage the students to skim a passage quickly looking for information or scanning for general information.

The comprehension questions that follow the texts are mainly recall of facts with very few asking for a critical response, evaluation or a personal response to the text. The topics of the texts are narrative, description, newspaper articles, opinion pieces, biography etc. Since the Access Course is for potential science students, some scientific texts should be added during the vacation schools. A reading for enjoyment programme is also needed to encourage the students to read books (Workshop report, November 1998).

Writing

The essays the students have to write include persuasion, argument, description, suggestions, giving reasons, opinions, explanations, autobiography, and fiction, as well as letters of

complaint, form filling, directions etc. The length required is from 60 to 200 words with the majority being less than 100 words.

It was agreed that the number of words should to be increased to 200 in both modules. More help with preparing for writing is needed and better model answers are needed, since the present ones are obviously written by adults. The learners need more help with planning their essays and structuring their paragraph (Workshop report, November 1998).

Listening

Most of the NAMCOL cassettes are recorded with Namibian accents. The pace is very slow and the stress is often exaggerated. Some instances of incorrect pronunciation were noted. It was obvious that all the dialogues were simulated and were being read. The students need to be exposed to a variety of accents, as well as real-life situation with background noises. It was decided to implement this by showing students videos on different topics on a weekly basis. Students would also be encouraged to listen to different songs (Workshop report, November 1998).

As a result of the analysis of the NAMCOL materials the rest of the workshop was spent in designing appropriate essay questions with suitable preparatory exercises to help the learners. Once that was accomplished, all the material was typed, edited and finally prepared for distribution. A detailed report was given to Ford Foundation and to all the members of the Northern Campus Advisory Committee.

Since a lot of work and effort went into revising and rectifying large parts of the Mathematics and English NAMCOL study guides, a meeting was set up with NAMCOL and members of the Northern Campus Task Force, to negotiate for a reasonable discount on the study material,

in exchange for revised copies of both the English and Mathematics study guides. NAMCOL agreed to a 30% reduction in fees (Meeting, 20th January 1999).

A second point of concern during the initial stage of the programme was the appointment of qualified and experienced tutors. The requirements were (a) at least a bachelors degree in teaching English or Mathematics with special emphasis on teaching experience in the IGCSE curriculum, and (b) experience in Access Programmes. As the central aim of the project was to achieve a high pass rate at the end of year, it was decided to make use of the services of a British organisation, Voluntary Service Oversees (VSO).[5]

The Ministry of Education made regular use of the services of VSO's after independence due to the fact that their services were of high quality and more cost efficient than locally employed teachers, especially if the services were required for only a short period of time. Furthermore, most of the VSO's were acquainted with the IGCSE education system and had some knowledge of Access or Bridging Programmes.

The local VSO branch in Windhoek was requested to make available the services of two experienced teachers for a period of two years, one for Mathematics and the other for English.

Stage 2 (March 1999 - December 2000)

Since the IGCSE/school-leaving results were only published towards the end of January 1999, the month of February was used to recruit students for the programme, although some effort was made before that to advertise the programme at various schools in the north.

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[5] This organization enables men and women to work alongside people in poorer countries in order to share skills, build capabilities and promote international understanding and action, in the pursuit of a more equitable world.

a)   Selection of UAP students

As part of a sensitising campaign, one member of the CES staff accompanied me towards the end of November 1998 to various schools in the Ongediwa region with the aim of testing people's feelings about the programme and about the N$1 000 that was proposed as a fee for each student. The response was quite positive. Many teachers welcomed the idea of an Access Programme and offered their services during the vacation schools. The principals and teachers also confirmed that the proposed fee of N$1 000 was affordable, especially if parents could pay it off in three instalments.

Printouts of all the 1998 and 1999 Grade 12 IGCSE Examination results from all the schools in the Ondangwa East and Ondanga West Education Regions were obtained from the Ministry of Basic Education and Culture's Examination office.

All those students who obtained 14 points in their three best subjects, excluding Mathematics and English (for which they need an F grade or better), where admitted provided a place was available. Eventually, in order to fill all the places, students who obtained 13 points were admitted to the programme. The recruitment was done mainly by means of the radio and the local newspaper. Because not everyone was in possession of a radio or could afford a daily newspaper, community members were requested to assist UNAM by informing those students who qualified for the course. On 3rd March 1999, the first group of 110 students started the programme.

Figure 5.1

Access Entry Requirements

	12	13	14	15	16	17	18
Number of Students	1	14	37	35	6	5	2
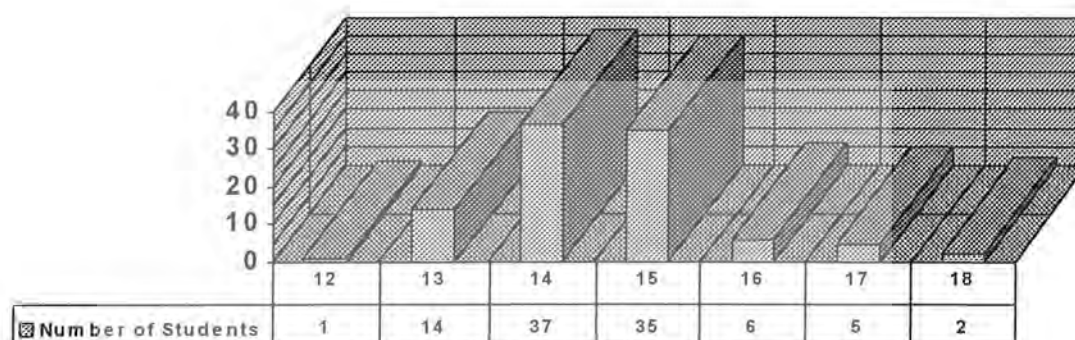
Figure 5.1 illustrates the various entry levels to the UAP of 1999, based on a point system, ranging from 14 - 18 points, although there were exceptional cases where students with points of 12 and 13 were admitted. Students were selected on the basis of having obtained a minimum of a 'C' aggregate in three subjects, including a science subject (14 points or more). However, as can be seen in the graph, one student entered the programme with a 12-point score, while 13% of the students had scores of 13 points. The majority of students obtained a score between 14 and 15 points.

b)   Logistics of the UAP

The programme was delivered mainly through a combination of distance learning and face-to-face tutoring. Students were expected to work on a self-study basis outside of the contact sessions which comprised weekly lessons at the Northern Campus and two vacation schools each of two weeks' duration.

The teaching took place at the Northern Campus which is in Oshakati, the principle town of the North Central Regions and the second largest town in Namibia. Oshakati serves a large rural area with a population of approximately 800 000 people. The majority of Access

Programme students came from the rural areas but stayed in Oshakati with relatives while attending the course. Many of them travel from five to thirty kilometres once a week to attend classes.

The students were divided into six groups of approximately 18 to 20 students per group. It was decided to keep the groups small so that students could receive individual attention, should the need arise. Each group had two English and two Mathematics lessons once every week, with a total contact time of 2¾ hours for each subject.

Two full-time tutors, both of whom were Voluntary Service Overseas (VSO) volunteers, conducted the teaching, while local tutors were recruited to assist with the teaching during the two vacation schools. The NAMCOL distance learning materials for IGCSE English and Mathematics, with supplements developed by the November 1998 workshop, provided the main study material for the course. All students, apart from one who studied only Mathematics, studied both subjects.
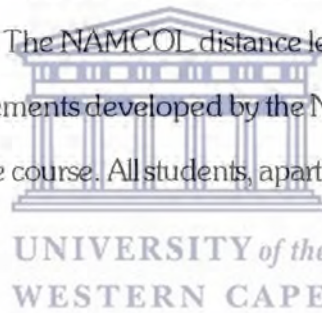
The students registered for the IGCSE examination at a local senior secondary school, close to the Northern Campus.

c)   Vacation Schools

An important component of the UAP is the two vacation schools, each of two weeks in duration, held in May and August/September. During the vacation schools, which coincide with the national school holidays, students are accommodated at a senior secondary school hostel near the campus.

From the teaching point of view, the vacation schools provide an opportunity to cover substantial parts of the syllabi more intensively. Furthermore, additional sessions of general

interest are incorporated into the vacation school timetable to give the students greater variety in their learning experiences and to enable them to develop new skills, such as information technology skills, and debating sessions. They also view educational videos, to improve their general knowledge. Every vacation school concludes with a social event.

The vacation schools for the 1999 Access Programme were both held in Oshakati. It was noticeable that the students were much more cohesive as a group after the first vacation school.

During 2000, however, it was agreed to hold the May vacation school at the main UNAM campus in Windhoek. The principle reason for changing the venue for the vacation school was to give the students the opportunity to become familiar with the main campus at Windhoek so that they would be more confident about applying for a place at UNAM when they received their IGCSE results. Also, students had the opportunity to meet the various lecturers from the Science Faculty and to familiarize themselves with the university setting. Students were also informed about the admission requirements of UNAM and the Polytechnic of Namibia.

Since I was responsible for the teaching of study skills during both the vacations schools held in Oshakati, in 1999, I realized as a researcher, that I never had the opportunity to observe the students' performance in classes apart from my own. I therefore discussed this issue with the tutors, and it was agreed that I could sit in on all the classes during the vacation school in Windhoek. In my observation, it became apparent to me how a lively presentation style and skill in explanation can make students want to participate more effectively in class. Baijnath (1997:184) is in agreement with the observation and suggests that the more dynamic lecturers be used at first year level at university.

Apart from the fact that I obtained permission to sit in on some of the classes, I introduced myself to the class and explained the purpose of my visit. I designed a list of possible items which I thought would guide me with regard to students' performance. The following observations were made and recorded in a notebook.

Some of the classes I thought students found interesting had the following characteristics:

- The lectures are introduced with an outline of the purpose and the broad structure of the lesson.

- Explanations were given with clear examples and illustrations were taken from the students' own life experiences.

- The lecturers talked to students rather than at them.

- Difficult words and concepts were placed on the chalkboard and were clearly defined at the beginning of the lecture, or at appropriate moments during the lecture.

- The lecture was rounded off with a recap of the main points.

Two things drew my attention, which appeared as problems in almost all the lectures I visited.

1. The first refers to the use of the chalkboard. My impression was that students had a tendency to copy anything that was presented on the board or the overhead projector, the assumption most probably being that if the lecturer had gone to the trouble of writing something down, it ought to be important.

2. The second was the difficulty that students had in taking notes during lectures. I had the feeling that students were either trying to write all that the lecturer was saying or were not able to distinguish what was important from what was not.

d)   Financial overview

In order to determine the economic viability of the programme, it is necessary to look at the funds generated for the programme, which are derived from four sources:

i)   Registration fee;
ii)   Student fee;

iii)   UNAM's contribution in the form of paying the tutors' salary; and

iv)   Ford Foundation's contribution.

The funds generated for the 2000 intake will be examined below.

a)   **Student Fees**

Registration fee: N$30 x 104 students = N$3 120

The course fees of N$1 000 per student x 104 students = N$104 000 were paid in three instalments. This fee covered tuition, materials, food during the vacation school, and examination fees.

b)   **Additional Fees**

Since this pilot programme was initiated by UNAM, the university agreed to pay the salaries of the two tutors, with additional birthday bonuses and medical insurances.

Salary: N$ 2 500 per month x 2 x 12 =	N$ 60 000,00
Bonuses: N$ 2 500 x2 =	N$ 5 000,00
Medical Aid: N$ 150 x 2 x 12 =	N$ 3 600,00
Sub-total	**N$ 68 600,00**

Ford Foundation also agreed to sponsor N$1 000 per student x 104 students.

N$ 104 000,00

c)   **Expenditure**

This income must be weighed up against the expenditure on the programme which was:

Salaries of two tutors @ N$2 500 per tutor from January - December =	N$60 000,00
Bonuses @ N$ 2 500 x 2 =	5 000,00
Housing allowance @ N$500 per month x 12 months =	6 000,00
Medical Aid: N$ 150 x 2 x 12 =	N$ 3 600,00
Sub-total	**N$ 74 600,00**

Running Expenses: **(allocated amounts)**

Administrative fees (telephone, fax, photo copying etc.)	11 400,00
Advertising costs	5 000,00
Study material purchased from NAMCOL (actual costs)	45 000,00
Educational and sport equipment	30 000,00
Expenses for the 2 vacation schools held in Windhoek:	
Travelling	10 000,00
Food for 104 students @ N$ 60 per student x 5 days x 2 =	62 400,00
Fees of part-time tutors @ N$ 110 per hour x 4 hours x 6 tutors x 2 =	5 280,00
IGCSE Examination fees for MBEC @N$250 x 104 students	26 000,00
Sub-total	**N$ 195 080,00**

d)   **Statement of Income and Expenditure**

Income	**N$ 279 720,00**	
Student Fees	N$ 107 120,00	
UNAM fees	68 600,00	
Ford Foundation	104 000,00	
Expenditure		**N$ 269 680,00**
Salaries and housing allowances:		N$ 74 600,00
Running Expenses	195 080,00	
Surplus		**N$ 10 040,00**

The purpose with the detailed explanation of the UAP's 1999-2000 budget, is to show that although the programme showed a surplus of N$10,040, it is by no means a cheap exercise. The problem of finances hits students, their parents and universities extremely hard. Unlike in the past, governments all over the world are expecting universities to make do with what they have (do more with less resources). Namibia is no exception to this dilemma. In order to adhere to its mission statement, UNAM is under pressure to accept more learners, including those who, due to the inequalities of the past, need support to succeed at university education. Government's demand for increased access is not, however, accompanied by financial support to help institutions to comply. On the contrary, government is becoming more and more reluctant to dig deeper into the public purse in aid of higher education institutions. The result of this is that UNAM is left with no option but to stretch available human and physical resources or turn some applicants down - thus barring entrance of learners who could have benefited from higher education.

Although the director of the Northern Campus feels that the monetary value of the UAP cannot be weigh against a programme which prepares people for "total human liberation", it must be remembered that the success of the programme depends upon donor funding. With the financial support of the Ford Foundation together with the inexpensive services rendered by the VSO's, the UAP is currently providing the least expensive Access Programme in Namibia. But what will happen to the programme at the end of 2003 when the Ford Foundation funding comes to an end? Who will then pay the bill? Or should one argue that if there is commitment to access, someone other than the poor will have to pay?

Stage 3 (February 2001 - December 2002)

Towards the end of October 2000, a request was made by Mr Nchundu Mbukusa, University Centre Head and co-ordinator of the Rundu UNAM branch, to UNAM's top management for their approval and support to start up a second UAP in the Kavango region. He said that if UNAM could assist him in starting up such a programme, he would take complete charge of

the programme including the English tutoring. He felt that people from the Kavango region were dissatisfied about the way in which UNAM were favouring certain regions above others.

Knowing that the contracts of the 1999 - 2000 VSO's were soon to expire, the director of the Northern Campus decided to recruit two more VSO's for the next phase of the programme, while at the same time requesting the currently employed VSO's to extend their contract for a further one year in order to assist the UNAM centre at Rundu with their proposed programme. The Mathematics tutor accepted the offer to extend the contract, while the English tutor returned to Europe.

Twenty students signed up for the programme at Rundu, while Mrs Sheena Clarke assisted Mr Mukusa with the recruitment of a Mathematics tutor as well as with the administrative side of the programme. Members of the community, mostly retired teachers, offered their services to UNAM. As the student group was small, it was decided to meet only on Mondays. Furthermore, since the University Centre at Rundu was too small to accommodate a regular one day per week programme, Mr Mbukusa negotiated with the Ministry of Basic Education and Culture for the use of a classroom at the Teacher's Resource Centre, to accommodate the students. The same teaching methods and materials used for the Oshakati group were used in Rundu.

5.2.3   Student profile of the UAP students

The discussion in chapter 4 points to the importance of student home background in determining access to quality education. Low socio-economic status indicated by factors such as low parental education and occupation, low income and large family size, is generally connected to low access to quality education. School factors such as teacher quality, school facilities and the position of the school in a rural rather than an urban area, influence the quality of educational opportunities available to students (Zaaiman 1998:105).

The decision to select only students from the Ondangwa East and Ondangwa West Educational Regions restricted the selected students to a group who experienced fewer educational opportunities than students who attended school in the urban areas.

This section gives an overview of the kind of student home and school background that characterise students who attend school in the rural Ondangwa East and Ondangwa West Educational Region.

A student profile was obtained of the first year intake of 104 UAP students. From the 104 students who enrolled for the programme, 94 participated in the survey. The return response was 100% since it was administrated during the first vacation school.

5.2.3.1 The inquiry: Constructing and administering the questionnaire

The first section of the questionnaire (questions 1-10) set out to establish the profile of the students. Biographical details include age, gender, language command, place of studying, conditions experience while studying, access to telephone and electricity, availability of transport, and distance to campus. Section (b) tries to establish profiles of the students' parents, by looking at the parents' qualifications. The section concludes by asking whether or not parents are employed, and who supports students financially. The remainder of the questionnaire includes questions regarding the student's school experiences, and includes questions 16-40. (See appendix B).

5.2.3.2 Biographical details

The biographical information shows that more that 56 (59.6%) of the students are 21 years of age and younger. 31 (33.0%) were in the age groups 21-23, while 7 students were 23 years and older. Of the 94 students who answered the questionnaire, 50 (53.2%) were female and 44 (46.8%) were male. This was pleasing as one of the objectives of the Access Programme is to try and encourage female enrolments to the programme.

The language of tuition at the Northern Campus, namely English, was a second language for all the UAP students. The home language of most of the students was Oshiwambo (43%). This is the main language spoken in the region in which the UAP is situated. The other home languages in descending order of frequency were Oshindonga (28.7%) and Oshikwanyama (25,5%).

Regarding conditions under which students study, 51 (54.2%) have access to a private place for studying, while 26 (27.7%) referred to 'other' as an option under " study place". 50 (53.2) of the students indicated that they have to study under noisy conditions, while 56 (59.6%) indicated that they have no electricity at home.

Apart from their usual home duties, 83 (88.3%) indicated that they have other responsibilities to attend to, whilst studying.

In order to get to the campus, 40 (42.6%) students make use of taxi or bus services, while 45 (47.9%) walk to the campus. 33 (35.1%) of the students are within walking distance from the campus, while 27 (28.7%) live from five to ten kilometres away from the campus. 23 (24.5%) of the UAP students live more than 20 kilometres away from the campus.

Many of the students lived in Oshakati or Ongwediva on a permanent basis or stayed with relatives in the Oshakati area. Approximately one third travelled to the Northern Campus for their weekly lessons, an arrangement which was costly both financially and in terms of time. Many students did not have a quiet place to study at home or adequate lighting to study by in the evenings, as only 38 (40.4%) of the 94 students indicated that they have electricity at home. Furthermore, many students found that their responsibilities at home limited the time they had available for self-study. To address this situation, the director of the Northern Campus wrote to parents, to explain how crucial it is for students to attend the one-day programme, as well as the importance of allowing their children to spend some time doing homework.

5.2.3.3 Family Profile

Figure 5.2: Question 11: Father's highest qualification
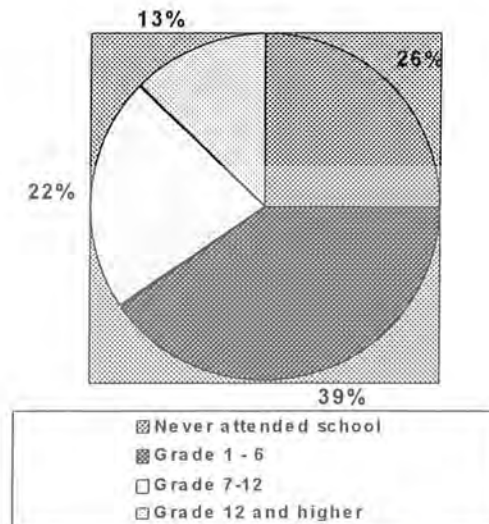
Figure 5.2 shows that 39% of the students' fathers attended only primary school (grades 1-6), 22% had post-primary education up to grade 12, and 13% had post-school qualifications. However, 26% of the fathers did not attend school at all.

Figure 5.3: Question 12: Mother's highest qualification
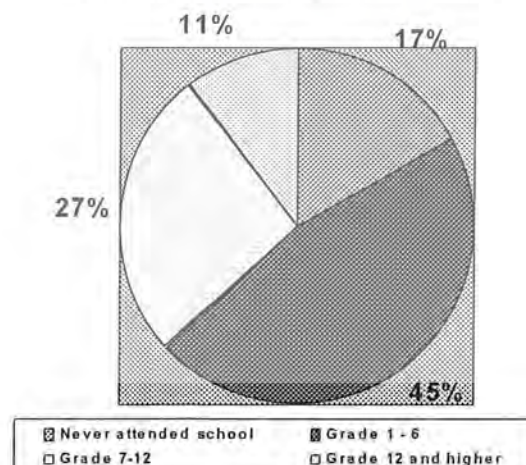
45% of our students' mothers have attended school between grades 1- 6; while 27% mothers have attended school between grades 7-12. Only 17% of the mothers did not have any formal schooling, whereas only 11% received school in Grade 12 and higher.

Figure 5.4:

MOTHERS' AND FATHERS' HIGHEST QUALIFICATIONS
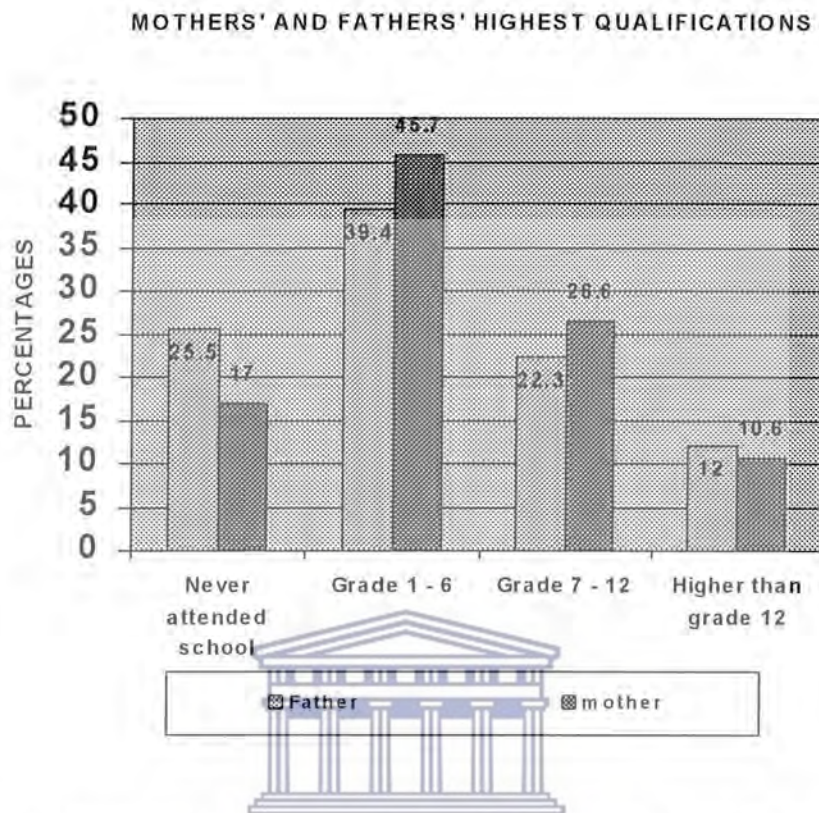
Figure 5.4 compares the qualifications of both parents. It shows that 25,5% of fathers never had any formal schooling in comparison to the 17% of mothers who never attended school, a slight difference of 8,5%. Furthermore, it shows that more mothers have been educated between grades 1 and 12, while more fathers have completed Grades 12 and higher.

Summary

Of the 94 students who completed the questionnaire, 24 (25.5%) indicated that their fathers had no formal schooling, while the same was true for 17% of the mothers. 43 (45.7%) students stated that their mothers had schooling between Grade 1 and Grade 6, while 37 (39.4) of the fathers had schooling between Grade 1 and Grade 6. 25 (26.6%) of the students indicated that their mothers had schooling between Grades 7 - 12, whereas this was true for only 21 (22.3. %) of the fathers. Only 12 (12.8%) indicated that their fathers had schooling higher than grade 12, while this applied to 10 (10.6%) of the mothers.

Although students indicated that 62 (66.0%) of the parents were unemployed, this might not mean that parents had no income. Many parents are farmers and are therefore self-employed. Parents often sell cattle to pay for expenses, and to make ends meet.

Parents do care. This is clearly illustrated by the fact that of the 94 students who responded to the questionnaire, 47 (50.0%) were supported financially by their parents. A further indication of the parents' involvement is the fact that 56 (59.6%) of the students indicated that they receive most of their motivation and encouragement from their parents.

5.2.3.4 School Experiences of students

Of the 94 student who completed the questionnaire, 45 (47.9%) repeated one or more classes at school. Only 11 students had the advantage of receiving extra tutoring in English, while 24.5% received extra training in mathematics.

When asked about their study methods, 70 (74.5%) of the students indicated that they learn best through memorization, while 71 (75.5%) of the 94 students indicated that they learn better by rewriting things. Of the 94 students who completed the questionnaire, 66 (70.2%) indicated that they prefer to copy down every thing from the board, while 28 (29.8%) did not agree with the practice.

The question arises, however, as to how effectively good study skills can be realised in cases where students have no books or other resources and teachers are untrained in pedagogy other than drill and practice. Rowell (1995:3) emphasises the fact that when a particular form of teaching such as memorization has become embedded in a society, "it has a resilience that is almost independent of changes in government, major curricular reforms or even changes in teacher training" (Rowell, 1995:3).

The UAP students reported on the facilities available at their schools. Almost all students came from schools that had 92 (97.9%) blackboards and chalk, this being the most available type of equipment. All students reported the availability of water and electricity at their schools. Although 95.7% of students stated that their schools had enough classrooms, class sizes of 30 - 40 students seemed the average.

The existence of a physical science laboratory was reported by 87 (92.6%), while 83 (88.3%) of the students had the use of a school library.

In general, the facilities available at the schools of the selected UAP students seem to compare favourably with the general situation reported by the MBEC Annual Report (1999). One should also keep in mind that they were not asked to rate the condition or actual use of available facilities in the questionnaire.

It is clear from comments made by these students that, even when a facility was "officially" available, it was often in bad condition or not used.

Teaching facilities are of obvious relevance, but a particular area of interest is the structure of buildings used for classrooms. In Namibia, the majority of schools are initiated and built by parents who construct "traditional" classrooms using poles, mud and thatch. About 20% of all classrooms are of a traditional structural type and have been built by parents and other community members. Other types of buildings are "permanent" "prefabricated", and "hired" structures.

It is arguably difficult for a school to operate in the absence of certain basic amenities, and large proportions of schools in Namibia do not have toilets, water, telephones or electricity. The same is true for teachers' housing, with only about one quarter of schools having any quarters for teachers.

Table 5.1 and 5.2 (see appendix C) compare the provision of sanitary facilities, water, telephone and electricity supplies at schools in different regions. Schools in the northern regions are poorly endowed with these services: Only 30.1% of schools in Rundu have toilets, 27.9% of Ohangwena schools have a water supply, 8% of Ondangwa East and 7.4% of Ondangwa West schools have telephones and only about 16% of Ondangwa West schools have electricity. By contrast, almost all schools in the southern regions, especially those in the Windhoek and Keetmanshoop, have these facilities and amenities (MBEC EMIS 1998). Table 5.3 shows the professional and academic qualifications of secondary teachers in Namibia, while Table 5.4 and 5.5 reflects on the great variation in the allocation of teachers in Namibia.

The best reflection of this is in the number of learners per teacher. Regional averages for this ratio in 2000 varied from 20.7 learners per teacher in Katima Mulilo Region to 35.7 learners per teacher in Ondangwa East. Learner: teacher ratios have fluctuated slightly over the past five years, generally decreasing in the northern regions and increasing in the southern regions.

While average learner: teacher ratios are useful in describing the magnitude of regional disparities, they also give the misleading impression that all schools in the region have teachers allocated according to the average figure. The percentages in Table 5.5 show, however, that there are very great disparities between schools in many regions. The greatest disparities are in Ondangwa East, Ondangwa West and Rundu. (See appendix C).

5.3 WHAT WERE THE DIFFICULTIES THAT STUDENTS EXPERIENCED IN BRIDGING THE GAP BETWEEN SCHOOL AND UNIVERSITY?

In an attempt to answer the second research question, I interviewed both of the tutors of the UAP, to establish the problems they encountered with the first year intake of UAP students, and also to determine what kinds of problems they thought the students faced. Since both

tutors made use of formative evaluation methods throughout the year, their experience and observations were of great value in identifying and grouping the student problems in categories as suggested by Grayson (1996), namely:

a)   Background knowledge, (b) attitudes, (c) behaviour, and (d) cognitive skills. Sharwood (1998:109) added a fifth category, that of social and psychological problems, to the list.

Although table 5.6 provides a list of identified problems and possible solutions to the problem, each of these problems will be discussed in detail in chapter 6. Furthermore, the student's problems also aided the tutors in drawing up educational objectives, which according to the tutors guided them in the teaching process and also set the scene from which future programmes could benefit. Based on the interviews, the identified problems and possible solutions to the problems, are reflected in Table 5.6.

Table 5.6: Problems and possible solutions to the problems, as identified by tutors.

PROBLEM	SUGGESTED SOLUTION TO PROBLEM
BACKGROUND:	
01. Students lack a reading culture.	Students need to be encouraged to read more.
Students cannot read and understand passages of English.	Students need to be taught how to read and interpret English text.
Students find it difficult to express themselves in English.	Students need to be encouraged to express themselves in speaking and writing English.
02. Students lack background knowledge in Maths.	Students need to master the basic concepts of Maths.
03. Students make basic mathematical errors.	Students need to master the basic concepts of Maths.
04. Students set out their work in very disorganized and untidy ways.	Students need to be encouraged to set out their work neatly and systematically.
ATTITUDES	
05. Students rote learn.	Students need to be taught how to study for understanding.
06. Students do not know how to work in groups.	Students need to be taught how to work in groups.
07. Students lack self-confidence.	Students need to develop their self-confidence.
BEHAVIOUR	
08. Students lack time management skills.	Students need to develop time management skills.
09. Students lack skill in studying	Students need to develop study techniques.
10. Students often come late for classes.	Students need to be taught the importance of punctuality.
11. Students often do not do their homework.	Students need to be encouraged to do homework regularly.
COGNITIVE SKILLS	
12. Students lack a broad vocabulary.	Students need to be encouraged to develop their vocabulary skills.
13. Students have difficulty in listening to and answering questions.	Students need to develop listening skills.
14. Students lack study skills.	Students need to develop effective study skills.
15. Students do not have good problem-solving skills.	Students need to develop problem-solving skills.
SOCIAL AND PSYCHOLOGICAL	
16. Students have not thought much about their careers and as a result do not understand what is available in science courses at UNAM or the Polytechnic of Namibia.	Students need career guidance.
17. Students seem to have many personal problems.	Students need someone with whom they can discuss their personal problems.

The above list of identified problems and possible solutions to each of these problems will be discussed in detail in chapter 6.

5.4 WHAT EDUCATIONAL OBJECTIVES MUST BE SET TO ENSURE THAT THE MAJORITY OF STUDENTS SUCCEED IN THE PROGRAMME?

From the above student problems that were identified by the tutors throughout the first year of the UAP, the following educational objectives were derived, which answers the third research question in this study: What educational objectives must be set to ensure that the majority of students succeed in the program? The following educational objectives were identified:

1. To improve the students' overall communication ability in English so that they can read and interpret English texts and can express themselves effectively in speaking and writing. They must also be taught listening skills.

2. To develop a reading culture amongst the students.

3. To help students to master the basic principles of mathematics;

4. To teach students effective study methods to:

    - be able to study and work on their own;
    - develop note-taking skills.

5. To assist students in the following:

    - the development of self confidence;
    - to instill a sense of responsibility in students;
    - time management skills;
    - the importance of setting out work neatly and systematically;
    - the importance of punctuality and regularity class attendance.

6. To encourage students to work collaboratively in small groups.

7. To provide a career guidance service; and

8. To provide an effective counseling service.

5.4.1 Meeting the Educational Objectives

The above section listed the educational objectives that were identified during the first year of the programme by both UAP tutors. In determining the extent to which the educational

objectives are met, the UAP tutors were interviewed with regard to success in attaining the programmes objectives.

a)   *Improving students' overall communication ability in English*

This problem is certainly addressed in the UAP as was seen in the previous section although the lecturers complain that they do not have enough time to achieve all they want to.

b)   *To develop a reading culture amongst the students*

Students were encouraged to read at least one easy book per month, and to present a class report on the book. The English tutor ensured that students visited the library during their contact sessions, and the librarian kept a record of visitors.

c)   *To help students to master the basic principles of mathematics*

Many of the students had major difficulties in their understanding of very basic mathematical concepts. Additional remedial support was given to these students, with a varying degree of success, that depended largely on the amount of extra effort that a student was willing to put in. Unfortunately, a few students who worked extremely hard nevertheless failed to progress to the level required by the Extended Syllabus.

Old examination papers were used to prepare students for the examination; again these were improved for the 2000 Access Programme with many questions retyped so that they looked more professional when photocopied. Remedial exercises were given to individual students who experienced difficulty with specific topics.

Students were also given mock examinations towards the end of each year. These examinations provided tutors with information about how familiar students were with the work.

d)   *To teach students effective study methods:*

- To keep pace with daily assignments.

  Students are taught time management skills and the importance of regular study. One of the tutors mentioned that some of the students carry diaries and that they make good use of them.

- To be able to study and work on their own.

  Students are certainly shown how to do so in the UAP. The tutors reported that some students often work together in groups. Tutors also reported that students, who are academically stronger than others, often stay after classes to assist weaker students.

- To develop note-taking skills

  Although note - taking skills are dealt with during the course of the year, both tutors were unable to comment on the students' note - taking skills as they seldom if ever look at the students' notes.

e)   *Teaching students the basic life skills*

- Developing self confidence

  Both tutors reported that students were shy and unsure of themselves at the beginning of the year, but as the year progressed, they became mature and self-confident in class. Students are not afraid to ask questions, and are very willing to help others after class who need further explanation.

- Time management skills

  UAP students appear to develop good time management skills and tutors reported that they complete their work on time.

- Setting out work neatly and systematically

    Students are encouraged to work neatly. Marks are allocated for neat work in tests and assignments.

- The importance of punctuality and regular class attendance

    Although this does not appear to be a common problem, students do often stay away to help parents with ploughing or harvesting mahango. Often students stay away to study for a test. Both tutors felt that they themselves need to set a good example of attendance and punctuality.

f)   *Encouraging students to work collaboratively in small groups*

The tutors both agreed that students do work in small groups. Students also offer their services as peer supporters to assist other students.

g)   *Providing a career guidance service*

This is certainly addressed in the UAP. The benefits of establishing links between students and the employer community do not start after graduation; rather they commence during the time of study.

Apart from the obvious financial benefits, the prospects of a "waiting" position are likely to increase learner motivation to achieve better results (Maharasoa 2001). During the vacation school holidays, various professionals within the community are invited to come and speak to students. Community leaders are also challenged to assist students financially should they wish to further their study at UNAM or the Polytechnic of Namibia.

h)   *Provide an effective counseling service*

Both tutors act as counselors and direct students to the director if the problem is beyond their control. The next section will look at some quantitative aspects of the student's progress through the two years of study.

Progress of UAP students as observed from March 1999 - December 2000

A comparison of the results from 2000 with the 1999 results, given in table 5.7, shows a greatly improved performance in the second year of the UAP.

Table 5.7: Comparison of the year 2000 and 1999 examination results.

GRADE	ENGLISH				MATHEMATICS			
	2000		1999		2000		1999	
	No.	%	No.	%	No.	%	No.	%
A	0	0.0	0	0	1	1.1	0	0
B	2	2.2	1	0.9	14	15.8	6	5.6
C	12	13.1	6	5.7	29	32.6	37	34.6
D	51	55.4	53	50.0	23	25.9	29	27.1
E	21	22.8	37	34.9	19	21.3	21	19.6
F	5	5.4	5	4.7	1	1.1	0	0
G	0	0.0	2	1.9	0	0.0	0	0
U	1	1.1	2	1.9	2	2.2	14	13.1
TOTAL	92	100	106	100	89	100	107	100

15.3% of students gained symbol C or better in English compared with 6.6% in 1999. The corresponding figures for mathematics are 49.5% in the year 2000 compared with 40.2% in 1999. This improvement can partly be accounted for by the fact that the entry grades for the UAP 2000 were slightly higher than in 1999. Perhaps more importantly, the tutors had more preparation time prior to the start of the second year and had greater experience of the IGCSE examination system.

Distribution of grade improvement

Improvement	Number of students	
Number of grades	ENGLISH	MATHEMATICS
4	1	0
3	4	9
2	34	27
1	37	34
0	13	15
-1	2	2
-2	1	1
-3	0	1

On average, students improved their symbols by one grade (1.27% for English and 1.21% for Mathematics). Table 5.8 shows the total number of points achieved by UAP students in 5 and 6 subjects in 1999 and the year 2000.
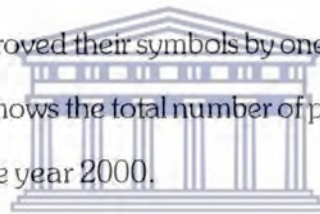
Table 5.8: Distribution of number of points

Total points in 5 subjects		
	2000	1999
25 or more	27	17
24	18	11

Total points in 6 subjects		
	2000	1999
29 or more	26	14
28	12	07

Table 5.9 below summarises the results of the UAP students in the 2000 IGCSE examinations and compares them with the symbols they attained in Grade 12, the previous year.

Table 5.9: UAP 2000 and Grade 12 IGCSE results by subject and symbol

SYMBOL	ENGLISH				MATHEMATICS			
	GRADE 12 (School results)		YEAR 2000 (UAP results)		GRADE 12 (School results)		YEAR 2000 (UAP results)	
	No	%	No	%	No	%	No	%
A	0	0.0	0	0.0	0	0	1	1.1
B	0	0.0	2	2.2	1	1.1	14	15.8
C	1	1.1	12	13.1	6	6.8	29	32.6
D	8	8.7	51	55.4	19	21.4	23	25.9
E	38	41.3	21	22.8	43	48.3	19	21.3
F	36	39.1	5	5.4	18	20.2	1	1.1
G	9	9.8	0	0.0	2	2.2	0	0.0
U	0	0.0	1	1.1	0	0.0	2	2.2
TOTAL	92	100	92	100	89	100	89	100

As in the first year of the UAP the results show a significant improvement in the grades for the majority of students, confirming that it is possible to redress past educational disadvantage through an upgrading programme of this type. 15.3% of the students achieved symbol C or better in English compared with only 1.1% at the beginning of the course. For Mathematics the percentage achieving a symbol C or better rose from 7.9% to 49.5%. While superficially these may appear to be disappointing results for English, it should be remembered that more students started the course with lower grades in English. 48.9%, almost half of the intake, had symbols F or G in English at Grade 12 compared with 24.4% in Mathematics (UAP Annual Report, 1999).

As can be seen from the above, the student's examination results for the first two years of the Access Programme show a significant improvement in the grades, demonstrating that it is possible to redress past educational disadvantage through an upgrading programme of this type.

This is not to suggest, however, that the UAP has been successful in its quest of assimilating disadvantaged persons into higher education. Not all people who enrolled into the course completed it. For example, during the first year of operation, 10 students who enrolled exited the programme prior to its completion. The most important factor identified as contributing to attrition was lack of support mechanisms and little encouragement from others in their existing cultural setting. In some cases, students were forced to withdraw from the programme because their role of student was perceived by others in their family and social groups to be in conflict with their roles as mothers or working-class men (UAP annual report 2000).

5.5 WHAT WERE THE SUCCESSES AND FAILURES OF THE UAP AND WHY?

In conducting the research, certain aspects which contribute to the success of the programme have come to the fore. These were investigated by studying examination results, annual reports, Northern Task Force meetings, and interviews with the two UAP tutors, as well as from my own observations during the first two years.

1.   *The curriculum, which consisted of the IGCSE Mathematics and English, was suitable for preparing students to enter UNAM or the Polytechnic of Namibia.*

It was stated earlier that NAMCOL study materials for both English and Mathematics were examined to see if they satisfied the identified needs of the students and to identify what extra materials might be needed to supplement them. Apart from the fact that many of the NAMCOL exercises were revised and incorrect answers corrected, additional study material was also incorporated into the UAP study guides. (See 5.2.2).

Comparisons of 2000 results with the 1999 results are given in table 5.7, which shows a greatly improved performance in the second year of the UAP. Apart from the fact that the tutors had greater experience of the IGCSE examination system, they also adopted a very

interactive style of teaching and ensured that one topic was understood before proceeding to the next.

2.   *The programme helps students to develop mature, confident and motivated attitudes towards their studies.*

Both tutors commented on the fact that the students are confident and well motivated. They take leadership roles such as leading class groups and acting as peer supporters.

3.   *The programme helps the students to develop responsible behaviour in class.*

    a)   Students are more interactive in class, asking questions and taking part in discussions. Both tutors have reported that the UAP students participate well in class. This might be a result of the interactive teaching methods used in the class.

    b)   Students are assertive in class and often take leadership roles. This was pointed out in 2 above.

    c)   Students attend classes regularly. The importance of class attendance was regularly stressed.

    d)   Students tend to finish assignments and exercises on time.

4.   *The programme helps the students to develop better cognitive skills*

    a)   Students try to understand the work. This was looked at closely in 6.5

    b)   Students learn how to work under pressure. One example is the mock examination which students have to undergo just before the final examination.

    c)   Students know how to study. The students study regularly and have been taught good study strategies.

d)   Students developed good time management skills. The students study regularly and know how to schedule their work. Quite a few students keep a diary and use it to plan their work.

e)   They often work collaboratively in small groups. Both tutors reported that the students prefer to work in small groups with their friends.

5.   *The tutors are very dedicated to the programme*

Both tutors were involved in Access Programmes before they came to Namibia. They adopted a caring attitude towards the students and became their mentors and counselors. They knew the first name of every student and this developed a bond between tutor and student. West (1993) suggests that teachers must get to know their students individually. They should meet regularly and provide a context for students and staff to discuss their work, worries and experiences as students. Furthermore, a positive relationship between teachers and individual students contributes to student learning because the students' desire to earn the respect and praise of the teacher can be a powerful source of social motivation when the student feels a close and positive association with the teacher. Moreover, a teacher can serve as a more effective role model for a student learner after a positive relationship has been established.

6.   *The programme helps the students choose a career.*

The career guidance given to the students does help them to make their choice of career. This was acknowledged by quite a number of students.

7.   *The classes are kept small.*

The maximum class size is 18 - 20 students and this allows for individual attention and small group work.

5.6 DISSEMINATION OF THE UAP TO OTHER REGIONS

It was stated under 5.2 that Namibia falls far short of the world's industrial nations when it comes to human resources in the field of science and engineering. This is partly accounted for by the dualistic economy prevailing in the country and the legacy of apartheid, which limited the educational levels for the majority of the population, particularly in the north. Should the economic growth rate increase, there will be an even greater shortage of qualified scientists and engineers. For this reason, greater numbers of students need to be prepared for courses in Science. As institutions of higher learning have limited capacity to conduct courses, which prepare students for these fields, it makes good sense for other institutions to conduct Access Programmes, or to duplicate this programme at other regions in Namibia.

This would provide opportunities for many more disadvantaged and under-prepared students to be prepared for successful study in the field of science.

5.7 CONCLUSION

The purpose of this chapter was to try and to understand the UAP. The first research question: Why was the UAP established and what form has it taken? served as introduction to the case study. I have tried to illustrate that to an extent the programme provided relief for many under-prepared unqualified school leavers in the Ondangwa East and Ondangwa West Educational Region, the parts of Namibia that have been the most deprived in the past.

I explained that the programme underwent different stages of development, with the initial stage mainly being concerned with the development of study materials and the recruiting of the VSO's. The second stage of the programme included the recruitment and selection of the students. A detailed exposition of the administration and academic development of the programme was also given, as well as a detailed discussion regarding the student profile of the UAP.

The second research question dealt with the difficulties students experienced in the programme and set out to investigate the third research question in the study: What educational objectives must be set to ensure that the majority of students succeed in the programme?

In concluding the case study, certain aspects which contributed to the success of the programme have come to the fore. These were investigated by studying examination results, annual reports, meetings as well as from my own observations during the past four years.

Table 5.9 showed a significant improvement in the grades of the first two years of the Access Programme, demonstrating that it is possible to redress past educational disadvantage through an upgrading programme of this type.

The next chapter will investigate whether or not the UAP was successful in achieving its objectives and whether it should be disseminated to other regions in order to reach many more under-prepared students.

CHAPTER 6

AN ANALYSIS OF THE UAP

6.1 INTRODUCTION

The UAP has now been in operation since March 1999. During these four years more than 300 students have passed through the programme and more than 50% have continued their studies at tertiary institutions in Namibia. The UAP described in Chapter 5 prepares students for the Science Faculty at UNAM and the Polytechnic of Namibia.

Except for some minor review of the programme as described in chapter 5, no in depth analysis of the programme has been undertaken to date. Popham (1975:153) states that information about the relative success of a programme is important so that it can provide information regarding the extent to which the planned programme is meeting its objectives, with a view to addressing the shortcomings of the programme.

While this study is not an evaluation of the particular Access Programme, this chapter attempts to provide a contextual understanding of what makes for an effective programme within the Namibian context and beyond. Since the politics of a country usually determines to a large extent the direction that the country will follow in different aspects of life, this chapter therefore sets out to investigate firstly the sociopolitical context in which the UAP is embedded. It also supports Gagné's view that the quality of education available to a student from a low socio-economic background can be expected to be influenced by his or her peer group, the educational facilities available at the school and the quality of teachers employed by the school. Secondly, since a lot of emphasis was placed on selection and admission criteria (see chapter 3) it will therefore be necessary to discuss the basis on which the UNAM Access students are selected. It will also shed light on other factors, such as curricular, pedagogical

decisions and the host of hurdles which frustrate students' aspirations towards the realization of academic success.

Whilst this programme is indeed unique - as each individual, social group, organization and programme is unique per se - this programme is typical of many Access Programmes that seek to meet the needs of disadvantaged persons. It shares concerns pertaining to ideology, politics, curriculum and pedagogy.

6.2 THE SOCIO-POLITICAL CONTEXT

It was stated in section 3.2.3 that the politics of a country usually determine to a large extent the direction that the country will follow in different aspects of life. Educational matters are no exception to this fact. Based on the country's constitution and the inherent priorities, access to higher education often forms an integral part of the ruling party's initiatives towards transformation. When looking at the Namibian educational system, it is observed that the educational reforms and policies aim at broadening and diversifying the scope of education and enabling as many learners as possible to benefit from the system.

As in most contemporary societies, participation in Namibian education yields social, economic and personal rewards. Education is acknowledged as a source of skills that enrich cultural, artistic and intellectual life, "it acts to gather and preserve knowledge. It promotes greater understanding of culture, often at odds with majority attitudes and, in doing so, supports the development of a more just and tolerant society" (McNamee 1994:107). According to McNamee, education is one of the principal means for individuals to achieve independence, economic advancement, personal growth, and the industrial skills required in the labour market. When individuals do not participate in higher education, they are nearly always excluded from participating in the professions and from enjoying the associated social benefits.

Section 5.2 reflected on the lack of students in Science, technology and engineering subjects as well as the under presentation of Black students in these programmes. It also refers to the current position in Namibia, where many school leavers who attain good results in general, nevertheless experience problems in the study of Mathematics and English. These problems areas may be seen as a result of the past education system, where large numbers of students have been denied the opportunities to develop the cognitive competencies and academic skills required for optimal participation and performance in post-secondary education. This is related to the deficiencies of Black schooling, the disruptions occasioned by opposition to apartheid education, and the lack of enough qualified teachers in the fields of Science and Technology. In the words of Rowell (1995:3), "the programme for Black teacher training colleges in Namibia, was an integral part of the Bantu Education system in South Africa and deprived the Black schooling system of adequate access to core subjects in the curriculum such as Science and Mathematics".
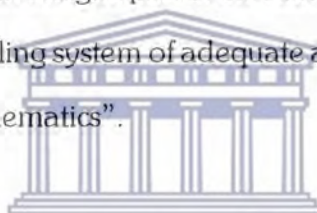
Finally, many students have been handicapped in that the language-medium of post-secondary institutions is not their mother tongue and often constitutes a second, and even third, language. The very abrupt switch to English medium teaching did not permit a nation-wide programme for the upgrading of teachers' English; many rural teachers, in particular, faced and continue to face a situation where contact with, and exposure to, English in any form is extremely limited both for themselves and their learners, thus restricting English to the "artificial" classroom environment. There was no doubt a severe underestimation of the trauma that a switch of medium would cause the country's teachers, especially when added to the radical changes being made to every fundamental element of the educational system (syllabuses, textbook, means of assessment, etc.) (Ministry of Basic Education and Culture 2000:7).

The University of Namibia has a strong commitment to the redress of race, class, gender and geographical inequalities in respect of the provision of university education. This finds

expression in its mission statement, "to provide extension services throughout the country with a view to contributing to the improved functioning of the education system as a whole" (UNAM Five year plan: 1992).

This commitment is further expressed in the introduction to the Annual Report of UNAM (1997:1), where the Vice Chancellor, Professor Peter Kajavivi, makes an indisputable statement that human resources constitute the most important asset any country can possess. He stated that by developing its human resources to its full potential, a country accelerates its pace of socio-economic development, and enables its citizens to live lives of dignity and fulfillment. Katjavivi furthermore stressed that this must be done strategically and systematically, in order to ensure that human resources are developed in such a way that they are enabled to render productive service in their respective field of expertise, for the benefit of society. He said that it is for UNAM to play a leading role in developing Namibia's human resources as it is the only university in the country. He correctly identifies UNAM as a "service institution which is committed to accommodate historically disadvantaged students". With that statement, the VC implied that the university can also play an educational and training role below the tertiary level. The then Dean of the Faculty of Humanities and Social Sciences, convinced top management at UNAM to concentrate on trying to improve the IGCSE grades of those students who did not qualify for entry into UNAM or the Polytechnic. Given this, and also the realization that the majority of UNAM students come from the central and southern areas of Namibia and that the north was under-represented, it was felt that there was a particular need for Access Programmes in the Ondangwa educational regions.

UNAM as seen in section 5.2 had been confronted with a particular institutional challenge, to introduce an Access Programme in the northern region of the country. The programme was to focus on Mathematics and English in order to assist disadvantaged and under-prepared, unqualified school leavers from the Ondangwa East and Ondangwa West Education Regions,

whose IGCSE results did not qualify them for entry into the UNAM or the Polytechnic of Namibia.

This section provides the broader social and institutional contexts which are essential for enabling the development of Access Programmes of this kind. Maharasoa (2001) is of the opinion that student access is viewed as transformation if it is able to redress the discrepancies within an institution. It is also about affirmative action, aiming as it were to bring on board those who, due to the history of being disadvantaged have not had the opportunity to participate in higher education.

Finally, when looking at the foregoing section, it appears as if UNAM has honoured its commitment of redress, by the implementation of the UAP at the UNAM Northern Campus. The commitment to redress, however, incorporates the knowledge that equality of provision entails much more than simply greater equality of access. Equality of access (facilitating the entry of students from disadvantaged social groups) has to be distinguished from equality of opportunity and outcome (the creation of an institutional milieu which provides quality education and is conducive to student progress and success) (Baker 1992; Badat and Lazarus 1993).

When there is agreement that a certain percentage of the population should have access to university education, then issues which flow from this needs attention - the first being, what criteria are used to select and admit students and what support systems are in place to ensure academic success?

6.3 WHAT CRITERIA ARE USED TO ADMIT STUDENTS INTO UNAM?

For many decades in practically all corners of the globe, admission into university was solely reliant on school-leaving examinations results. These results have, however, come under scrutiny over the past few years. The consensus is that, on their own, examination results are not a true reflection of the learners' actual capabilities and potential - particularly for African learners who have been subjected to an inferior high school education (Hughes and Mwira 1990). According to Zaaiman (1998) the current educational systems do not satisfy Africa's educational and person power needs, and especially not the need for people qualified in the fields of Science and technology, which is generally seen as extremely important for the development of a country. Calls for efficient and equitable selection mechanisms are made. Such selection must be perceived to be fair to be seen as legitimate (Ajayi et al. 1996).

It was pointed out earlier in section 3.5.3 that ideologies in the admissions processes in universities are highly influenced by access policies. Brennan (1989), identified two main ideologies: the first was "the selection of the best candidates" ideology and the second the "competition for all places" ideology. According to Fulton (1989), four models can be found which commonly arise from these ideologies. The first model, also referred to as the reputational ideology, connects admissions to the quality and reputation of the institution. Here the ability to attract "good" students is seen as an indication of high status of the institution. The second approach is linked to the "equity" principle, in that competition for places should be "fair" and, therefore, the best students should be allocated places first. The third model relies on the "shortage of students" principle where places must be filled and so it inadvertently favours access students. The fourth approach which has relevance to this study relies on social engineering or the principle of compensation. Such an approach would allow for a modification of the "rules" of entry in order to favour those who are disadvantaged by the standard criteria, i.e. access students or minority groups. Such concerns in many cases relate to broader political agendas, which see social and occupational mobility through education as an important

contribution towards achieving a fairer society. Therefore, in looking at routes into higher education and the composition of students admitted, there is likely to be great concern with the social composition of the student group in terms of social class, ethnicity, gender and age. Thus, whereas the reputational ideology attaches great value to A-level-point scores of the student body, the compensatory ideology seek to change disadvantaged persons so that they can become "normal" and able to "fit" existing institutional culture.

Like other countries in the Southern African Development Community (SADC), Namibia has experienced changes in the public examination system at senior secondary level. Prior to independence the Cape matriculation system was used as a tool to determine movement from senior secondary to universities, tertiary institutions, and to the world of work. As part of the education reform process, in 1993 the then Ministry of Education and Culture formally adopted the International General Certificate of Secondary Education (IGCSE) and its variant the Higher International Certificate of Secondary Education (HIGCSE) from England, as the type of examination to replace the Senior Cape Matriculation Examination. The (H)IGCSE is taken at the end of the Senior Secondary phase at Grade 12. The present minimum admission criteria at UNAM for undergraduate studies are an International General Certificate of Secondary Education. Applicants must have the equivalent of a C symbol in five subjects giving 25 points in total. The score is calculated by adding together the points of the best five subjects only. English is a compulsory subject and should be obtained at IGCSE (English as second language) grade C or better or grade D or better at IGCSE (English First Language) level. Furthermore, a C symbol is required in Mathematics if a student wishes to study Science or Agriculture (UNAM 1999 Yearbook). For admission to the Polytechnic an applicant needs 25 points in six subjects and a minimum E symbol in English.

Table 6.1 shows the total number of points achieved by the Access Programme during the period 1999 - 2000.

Total points in 5 subjects		
	1999	2000
25 or more	17	27
24	11	18
23	15	15
22	21	15
21	19	08
20 or less	24	09
Total	107	92

Total points in six subjects		
	1999	2000
29 or more	14	26
28	07	12
27	13	12
26	15	18
25	17	04
24 or less	41	20
Total	107	92

The tables show a marked improvement in the results for the year 2000 with 29% meeting the basic entry requirements for UNAM. This figure compares with 16% who qualified for UNAM in 1999. As some Faculties will admit applicants with 24 points, the actual percentage qualifying from the Access Programme 2000 is almost half of the course (49%). Similarly, the percentage qualifying for entry to the Polytechnic rose from 62% in 1999 to 78% in the year 2000. It should be remembered, however, that the strict entry requirements laid down by UNAM for admission to Science and Agriculture degrees, and the additional entry requirements laid down by some Faculties like Law for example, means that only a small number of our students enter these programmes.

It must also be noted that when interpreting the results it should be kept in mind that for most of the IGCSE subjects it is possible to enter at either CORE or EXTENDED level. If a candidate has entered at CORE level, the highest score he/she can obtain is Grades C-G, whilst for the EXTENDED level a candidate may obtain Grades A-E. Students who wish to enroll at South African universities, are encourage to take at least 4 HIGCSE subjects and two on EXTENDED level (van der Merwe 1998:58-59).

During 1999, the majority of the UAP students enrolled for the IGCSE CORE examination. But as the examination approached, the tutors realized that there were many students who were capable of writing the more advanced EXTENDED examination. The following year however, students were encouraged to enroll for the EXTENDED level. See table 5.7 for a comparison of the 1999 and 2000 examination results.

While the above exposition of the two different Grade 12 entry criteria bears testimony to UNAM's commitment to the principles of redress and access to educational opportunities, it opens itself to various interpretations.

The purpose of founding UNAM, was specifically to serve the Black people of Namibia and the current student population still reflects that legacy. In a way, one observes that UNAM is continuing to match its access initiatives to the very reasons that necessitate its existence; it therefore deserves credit for this. On the other hand, one may interpret the Vice Chancellor's statement as suggesting that the university has a choice between historically disadvantaged students and their "advantaged" counterparts, in which case the university would have gone the extra mile to facilitate the admission of historically disadvantaged learners (the former). But seemingly that is not the case; UNAM is currently "stuck" with IGCSE entrants who cannot be accommodated at other universities in South Africa, mainly due to the "low standard" that is attached to it. Students who gained access to a degree programme through the IGCSE, is in a sense tied to the university. The question that arises from this situation is: Who stands to benefit from this access policy? Clearly students gain access to programmes which they may otherwise not have gained, but in the long run, the very access may turn out to be a barrier that prevents them from exploring other avenues of obtaining a more credible type of academic access.

UNAM, on the other hand, gain twofold, firstly because it receives subsidy for students, and secondly because it has secured students who may not be admitted at any other university

for postgraduate studies - their only option would be to pursue all their studies at UNAM only. Maharasoa (2001) reminds universities to take precautions when planning and implementing academic access initiatives. She says that such access initiatives should be to the benefit of learners and should bear longer-lasting fruits than is currently the case.

Furthermore, despite UNAM's effort to put in place as many entry paths as possible, it still has not been able to execute recognition of prior learning (RPL) and experience as a criterion for admitting learners into university education. The main problem seems to be that the majority of "new" applicants fall within the typical age cohort of 19-24 years. Most of them are Grade 12 IGCSE holders and do not have any prior learning or experience related to their desired fields of study. Another problem regarding the principle of recognizing prior learning and experience is according to Maharasoa (2001) that academic institutions all over the world still encounter problems to formulate appropriate instruments for measuring experience, especially if acquired in non-formal settings.
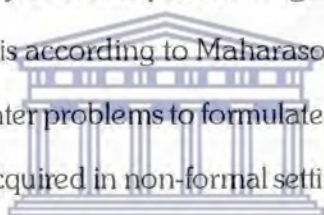
It was pointed out earlier in this study, that many students come to the university with very little information on what is on offer.

The next section will investigate how students are informed at the various courses that are available at UNAM.

6.3.1   How are students assisted in selecting courses of study?

The most common way of assisting students to select courses of study at UNAM remains the use of the prospectus, or the year-book as it is sometimes referred to. The prospectus or year books are obtainable at each faculty as well as at the UNAM Northern Campus. Furthermore, UNAM is currently preparing a prospectus in a summarized version offering broad information that will enable students to make career decisions. This user-friendly version of the prospectus

will be made available to schools shortly, and is aimed at facilitating the inclusion of historically disadvantaged learners. In this way, UNAM is not only opening its doors with regard to academic access, but is also making it easier for students to choose courses from an informed point of view.

It must also be mentioned that UNAM has explored the use of radio and newspapers in advertising its programmes. That is especially true in the case of the UAP. But other faculties and departments like the Centre for External Studies make use of the radio and newspaper on a regular basis to inform their students regarding vacation schools, examination times etc.

As pointed out earlier in Chapter 3, many first-year students come to the university with very little information on what is on offer. This is why it is critical to have a facility through which students are made conversant with newly-introduced areas of study right at the beginning of their university education.

During vacation schools, UAP students are brought to the Main campus at Windhoek by bus, where they have the opportunity to meet the various lecturers from different faculties, and also where they are informed about the different subject choices as well as the admission requirements of UNAM. During their two weeks of stay at UNAM, the students are exposed to various pre-arranged activities like debates, sport activities, public lectures and visits to various educational places.

On the whole, one is pleased to see that UNAM is doing its best to make student access to the university meaningful so that students may be assisted to register in the career they wish to. This commitment to enhancing students' course choices benefits UNAM and the students alike in that if students are satisfied that they are receiving the quality of academic access they had hoped for, they are likely to spread the word and attract more students to the university. Financial gains are also inevitable for both parties in that the current funding formula is

based mainly on the number of students a university has. Students' financial benefits result from the savings they make by enrolling into the "right" programme and not moving from one programme to another. According to Sharwood (1998), directing learners into niche areas of study increases graduates' employment chances, and that in itself can turn out to be a marketing strategy for the institution.

6.3.2 What kind of support is available to assist students to succeed in their studies?

Myers (1988) has found that more students complete their studies if they are internally motivated. In helping students achieve higher aspirations, programmes need to provide mechanisms for support.

Generally, the office of the Dean of Students provide counseling services to students, however, the Vice Chancellor of UNAM considers it essential that every member of the staff should be a counselor who will listen caringly to the students' problems and will refer them for further counseling, if necessary. In my opinion, the effectiveness of such an approach is highly doubtful, particularly so when there is no fixed policy to encourage and monitor its implementation.

UNAM supports its students by way of tutorials, which are offered by senior students and lecturers, but the efficiency issues leave much to be desired. Because of the large numbers of students in a class, it is difficult for tutors to provide individual attention. So - in a way- the tutorials are only a little more effective than the lectures.

Extra tutoring for the UAP students at the UNAM Northern Campus is part of the services that are provided. Through continuous assessment, tutors are aware of the problems students are encountering, and extra tutorials are arranged accordingly. Furthermore, tutors often make use of peer tutoring to assist students.

The general idea of the academic access debates lies in the ability of universities to support all students to make it through their studies. According to Morrow (1994) this is "true access", not access for the sake of increasing numbers for the universities. By providing academic support to learners, universities eliminate or reduce the occurrence of the endemic "revolving door syndrome" which plagued many South African universities in the past. Maharasoa (2001) states that the importance of academic support is emphasized in the Education White Paper 3 (1997) and other government legislative stipulations and as such should form an integral part of any student access initiative. It must be noted, however, that the lecturers' efforts to promote success of students in their studies do not necessarily mean a complete eradication of obstacles. Some factors which hinder student success could still be identified, as can be seen in the next section.

6.4 BARRIERS TO ACADEMIC SUCCESS

A host of variables surface as hurdles which frustrate students' aspirations towards the realization of academic success. These multifaceted forces can be grouped into the following categories: system-related barriers, students-related barriers, and barriers emanating from the students' socio-economic backgrounds.

6.4.1 System-related barriers

The fundamental system-related barrier, as pointed out by Maharasoa (2001), is the low level of preparedness that is increasingly displayed by first-time university entrants. She expressed the opinion that the school system failed to equip learners with basic skills like organizing, studying, writing and reading skills, without which students find it very difficult to cope with university education.

The massification of tertiary education, particularly where that massification involves the establishment of a multicultural, multilingual student body in place of one that is monocultural

and monolingual, has tended to cloud the issues involved in understanding the achievement of academic literacy as the goal of a university career. As more and more students enter into the university, classes become bigger and bigger, compelling lecturers to rely mainly on the lecturing technique for classroom interaction.

6.4.2 Student-related barriers

The first mistake that students make is to make the "wrong" choice of study field. The problem arises when students choose courses which demand more from them than their intellectual capacity can match, or when they discover somewhere in the middle of the course that is not likely to lead them to their desired career. The consequences of choosing the inappropriate course of study include frustration, a lack of motivation and sometimes subsequent failure or drop-out.

Recent years saw the emergence of a new type of student - the student-earner. As the Namibian economic situation is deteriorating, students are compelled to find part-time work to make ends meet. Newton (2000:9) is of the opinion that one of the two responsibilities is bound to suffer and usually it is the studies, because students still regard attendance as optional, not compulsory.

6.4.3 Students' socio-economic backgrounds

Diversity in the student population expands into students' economic status as well. Studies by Hixson and Tinzmann (1990) have shown that students from poverty-stricken backgrounds are less likely to complete their studies than their counterparts from wealthier backgrounds. If they do, it sometimes takes longer than the time spelled out for the completion of the relevant programme. Black students seem to be the victims in this case.

According to Maharasoa (2001:245) gangsterism is another barrier to academic success. According to her, gansterism is a reflection of the kind of society students come from. It does not emerge from universities themselves, rather "malpractice from communities spill over into universities".

Through the provision of student bursaries and loans, the utilization of counseling services and support networks and through verbal encouragement for lecturers to persistently strive to create a student-friendly environment, some of the barriers can be minimized if not eradicated completely.

Finally, another major category in academic access debates is the ability of the system to process students and sees them through different stages of study until they reach completion. In Table 5.6 students' problems and corresponding needs were identified. To investigate how the programme is meeting these student needs, both UAP tutors were interviewed and asked how they were approaching their subject to address these needs. The following section will shed light on how the tutors addressed various academic problems of the UAP students during the period 1999 - 2000.

6.5 QUALITATIVE RESPONSES TO ADDRESSING STUDENTS NEEDS.

Access Programmes are implemented to prepare and enroll disadvantaged people into institutions of higher education, to boost the participation rate of that group in higher education. Typically, these Access Programmes adhere to a deficit model of disadvantage. A central assumption of this model is that by suffering conditions of disadvantage, persons from disadvantaged backgrounds have incurred deficits in "normal" development. (It should be noted that the idea of "normal" is far from neutral - it tends to be dominated by the hegemony of the mainstream.)

Access and Equity Preparatory Programmes are called on to play a compensatory role. They seek equity without challenging the hegemony that dominates higher education. They do not seek to change fundamentally the values or systems of power that institutions employ in selection, governance, pedagogy, etc. Rather, Equity Programmes seek to change disadvantaged persons so that they can become "normal" and able to "fit" existing institutional culture. It is assumed that through compensation of deficits, which tend to be predominantly interpreted as deficits in knowledge, persons from disadvantage backgrounds, can be assimilated into more privileged classes already participating in higher education. It must be noted that, by their compensatory nature, Access and Equity Programmes are inherently conservative, seeking to maintain existing social patterns. They do not radically seek reconstruction, or even evolution, of society; rather, they seek the social mobility of its participants (McNamee 1994:108).
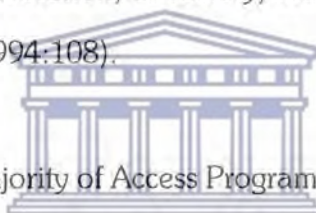
In most countries, the majority of Access Programmes, including the UAP, offered by the UNAM Northern Campus, are located within the compensatory framework outlined above. Their enveloping discourses speaks of deficits, especially knowledge deficits, and the need to compensate persons of disadvantaged backgrounds for these deficits incurred through bridging activities that attempt to fill the "gaps" in their students' conceptual frameworks (McNamee 1994). Typically, these courses claim to seek to provide knowledge that should have been learnt during the schooling process, to improve the chances of their participants in subsequent higher education studies.

The content for such Access Programmes is usually drawn from those knowledge requirements determined to be prerequisite by the institutions of higher education. For example, the choice to offer only Mathematics and English in the UAP, was based on the decision of some of the key academic staff to prepare students for the Science Faculty at UNAM and the Polytechnic of Namibia. Subsequently, the IGCSE curricula for English and Mathematics were scrutinized

in order to identify any needs for curriculum enrichment to meet UNAM and the Polytechnic of Namibia's entry requirements. Adhering to the notion of compensation, UAP students are required to enroll only for Mathematics and English, which is a prerequisite for entrance into UNAM and the Polytechnic of Namibia. In this programme, and indeed in others like it, knowledge is considered to have primarily pragmatic value. Students do not necessarily study Mathematics or English for intellectual pleasure, nor do they study it because it is "right" to do so. They study Mathematics and English because they need it if they are to successfully improve their social status and assimilate into more privileged classes within institutions of higher education.

Aside from their concern for the development of knowledge of facts, principles and processes, most Access Programmes recognize at least implicitly the importance of their students expressing confidence, co-operation in learning, persistence, interest and enjoyment, initiative and creativity, and other such personal characteristics if they are to participate successfully in most higher education settings (Brown et al. 1989). Crowther, Gibson and Fogarty (1990), states that it is important for persons from disadvantaged backgrounds to acquire these personal characteristics if they are to conform successfully in higher education institutions.

The UAP attempts to enhance these personal characteristics in its students through its choice of pedagogy. Within the UAP, pedagogical choices are driven by the following: a commitment to deficit compensation; a conviction that individuals can access any knowledge given appropriate steps to follow; a view that people enjoy successful learning and fear failure and that learning is a process of enculturation.

In order to enhance students' academic experiences, tutors are expected to provide assistance to students through their teaching methods, availing themselves for consultation outside teaching lessons, supplying adequate and accessible teaching material and by using English

as the medium of instruction. The emphasis in delivering the curriculum is on the quality and meaningfulness of learning. Therefore, the approach to teaching and learning is learner-centred, which means that the starting point at each stage of a learning process is each student's existing knowledge, skills, interests and understanding, derived from previous experience in and out of school. In this approach students are expected to interact more with each other, with the tutors and with text in order to access and manipulate knowledge and data and create meaning from new learning material (Legesse and Otaala 1998:16-17). The following section will shed light on how the tutors of the UAP dealt with student's academic problems.

a)   Reading, listening and writing

The tutor responsible for English stated that reading presented technical difficulties. She said that students couldn't read and understand passages of English and that this is a particular problem for English Second Language speakers (ESL).

The tutor tried to remedy this by applying reading strategies to past examination papers and newspaper articles. She had hoped to improve the students' text comprehension by means of extensive reading. Students were encouraged to read at least one easy book and three articles each month. It was found that the girls preferred to read more often than the boys. Listening material such as recorded cassette tapes dealing with educational issues could be borrowed from the library to improve the students' listening skills and general knowledge. During lunch hours and also during the vacation schools, students were encouraged to watch educational videos to improve their general knowledge.

During the second year students were shown videos from different universities. The main purpose according to the tutor was that through observing others, the university mystique is diminished, and students will see themselves as future university students. Lave and Wenger

(1991) states that when students are exposed to the culture of university life, it becomes a reality for them.

b)   Writing

The students' writing skills were weak to very bad to begin with. Quite a few students could not formulate sentences and every possible grammatical and lexical mistake occurred in their work. The situation improved considerably during the course, though too many basic mistakes continued to occur. It became clear the students also had problems with regard to the topics they had to write about. Their lack of general knowledge was addressed by having discussions on different topics, which were aided by relevant educational videos. Students were also encouraged to find information on the Internet. The importance of reading books and magazines was strongly emphasized.

c)   Expressing oneself in speaking and writing English

The tutor responsible for English indicated that students were at first very timid and only spoke when they were absolutely required to do so. The tutor also stated that students found it very difficult to express themselves in English. This would of course adversely affect the students' performance in assignments and examinations. In many cases the students actually knew the answer but expressed themselves so poorly that they received low marks. In those cases, they could not understand why they had done badly. In addressing this problem, the tutor made students work in small groups and by the end of the year, "they were able to give oral presentations, without relying too much on their notes". Another way of addressing the problem was to record students' oral presentations on cassette tapes and played it back to students during the vacation schools. Students enjoy listening to their own voices, and exercises like these helped them to pronounce words correctly.

The tutor stated that she wished she had more time to assist students with their pronunciation

d) Mastering the basic principles of Mathematics

The tutor responsible for Mathematics was of the opinion that students make basic mathematical errors. The students knew the subject specific theory but were let down by their lack of ability to apply the theory in practice. The tutor stated that this was not an easy problem to overcome as students hate doing remedial work.

Although the majority of the students started the Access programme with a basic competence in number skills, algebra, shape, and space, they did not have a sufficiently firm foundation to cope with the demands of the Extended Syllabus. Accordingly, in the first weeks of the course a great deal of emphasis was placed on improving their basic skills. This limited the time available for progressing to the more demanding Extended topics on which the examination is based almost exclusively.
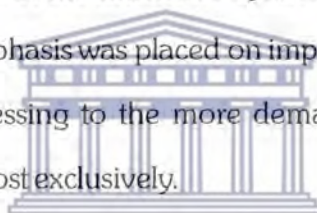
Some of the students had major difficulties in understanding very basic mathematical concepts. Additional remedial support was given to these students, with a varying degree of success, which was largely dependent on the amount of extra effort the student was willing to put in. Unfortunately, there were a few students who worked extremely hard but nevertheless failed to progress to the level required by the Extended Syllabus.

Other specific difficulties identified by the tutor were:

- Over-dependence on rules and formulae, learnt by heart in secondary school, but not really understood;

- Poor mental arithmetic skills compounded by an over-reliance on the calculator, even for the most basic calculations such as multiplying and dividing by 10, 100 or 1000;

- Inability to apply their skills and knowledge to questions that are posed in an unfamiliar format; and

- Limited ability in mathematical reasoning and problem solving particularly in translating a problem expressed in words into a mathematical statement. Some of these difficulties are related to the students' poor English comprehension.

In an attempt to help students master the basic concepts of Mathematics, the following measurements were taken:

a)   The Mathematics tutor prepared worksheets, particularly for Extended topics. These worksheets were prepared on a week-by-week basis. They were improved for the 2000 intake, to be more "student-friendly". (Most of the questions used in the worksheets were taken and/or adapted from textbooks published in the UK).

b)   Old examination papers were used to prepare students for the examination; again these were improved for the 2000 Access programme with many questions re-typed so that they looked more professional when photocopied.

c)   Remedial exercises were provided for individual students who had difficulties with specific topics.

e)   Setting out work neatly and systematically
        Both tutors were of the opinion that students have a very haphazard and untidy way of setting out their work. In the UAP, both tutors place great emphasis on neatness and the way that students lay out their work. Guidelines are given to the students on how to lay out their work and they are rewarded in tests for neatness. With small classes it is possible to give individual attention to those students who are having problems in this field.

f)   Studying for understanding

The fact that students rote learn is a problem that was indicated by both tutors. Students can learn long passages of text off by heart and are able to regurgitate it word for word. It is a system that they used to survive at school and it is very difficult to change this approach (see 5.3.4). Research indicates that for a short period of time students can retain vast quantities of information but many of them soon forget much of it and fail to make good use of what they do remember (Ramsden 1992). Moulder (1991) maintains that standards are lowered when students rote learn but they are maintained and improved when students have to understand what they are learning. So helping the students to understand is the responsibility of the tutors in the programme.

Both lecturers are very aware of the need to help the student in this respect and emphasise the skills that are necessary to be successful. The students are shown how to use the library so that they are able to do further reading.

g)   Individual work and study

Both tutors indicated that students are passive learners. At the start of the programme, the need to be able to work on their own is explained to the students. To monitor this, homework is checked on a regular basis. Students are often given group tasks, which they must do in their own time. In this way students can assist one another and show those who cannot work on their own how to do so.

h)   Encouraging small group work

Working in small groups can be very beneficial for the students and can certainly aid their learning. Thomson and Inglis (1992:123) say that "by emphasising active student exploration of the content and materials presented, and making for as much learner talk as possible, a particular type of communication is established. This interpretation

education is so closely linked to the verbal exchange of ideas, it follows that a methodology which facilitates this type of interaction is one to be sought out".

This allows the students the opportunity to express opinions, to sort out their thoughts and to construct knowledge in the safety of the confines of the group. It helps to overcome shyness and builds confidence. UAP students are encouraged to work in small groups.

i)   Developing self-confidence

Both tutors indicated that students lack the self-confidence to ask questions in class. This largely originates in their previous school environment, which was characterized by pedagogy of teacher-dominated classrooms and passive learners (Thomson and Inglis 1992; and Rowell 1995). Low self-concept refers here to a student's inability to see himself/herself as a whole person with individual strengths and weaknesses. Low self-esteem refers to the student's self-assessment or self-evaluation as an individual with low worth.

The Northern Campus staff who do the recruiting are focusing more and more on helping potential students to reduce personal stress and to develop positive outlooks. The Director of the Northern UNAM Campus reports that one of the major aims of the programme is to improve students' self-esteem and to build confidence. Sharwood (1998:163) states "confidence comes about firstly by developing the student's self-image and confidence in themselves, secondly by developing a culture of interactive learning, and thirdly by ensuring that the students have a certain level of basic knowledge".

j)   The importance of punctuality

Both tutors indicated that students very seldom come late for classes. Unreliable transport does however; contribute to the students' being late for class occasionally, especially for the first period of the morning.

k)   The importance of regular class attendance

Both tutors reported that students like to skip classes to prepare for tests. This according to Sharwood (1998:164) is symptomatic of students to try to cram in their learning just before a test.

Students on the UAP are taught time management skills and how to schedule their work. Class registers are taken regularly and the tutors speak to students who miss classes.

l)   Encouraging students to solve problems on their own and to do homework regularly.

Both tutors were of the opinion that students are reluctant to solve problems on their own or to complete the homework given. Homework is a problem for some students as their home situation is not always conducive for study.
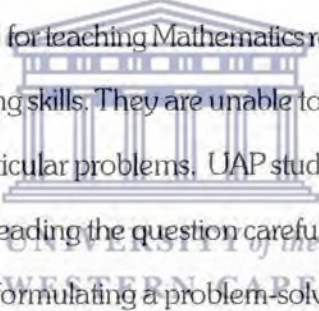
m)   Developing good study skills

The UAP tutors indicated that students do not have a clearly defined system of study. This is a common problem especially if the students have been dependent on rote learning at school. Both tutors confessed that they have not spent enough time on study skills.

n)   Developing problem solving skills

Whilst having been somewhat successful in helping students to overcome many academic problems, the majority of students has not mastered completely problem-solving skills,

and is tending towards "surface" learning, characterized by success in the lower order tasks. In order to guide students into developing a "deep" approach of learning (Marton et al 1997), the Mathematics tutor divided the students into small groups, and physically sat down with each group while trying to solve the problem. Brown et al. (1989) sees this as a deliberate attempt to generate mathematical practice and to show students how to think mathematically about the world, how to see the world through mathematicians' eyes, and therefore how to use the mathematician's tools. This approach goes well beyond simply giving students problem-solving strategies. Much more importantly, it provides students with the opportunity to enter the culture of mathematical practice.

The tutor responsible for teaching Mathematics reported that students have not developed good problem-solving skills. They are unable to apply the concepts that they have learnt in order to solve particular problems. UAP students are shown various problem-solving techniques such as reading the question carefully, identifying the key elements, relating these elements and formulating a problem-solving algorithm.

The Mathematics tutor mentioned to me that she often times sit down with students in small groups to solve difficult calculations. In this regard Brown et al. (1989:40-41) refers to Schoenfeld's teaching of problem solving. Schoenfeld's students bring problems to the class that he and they investigate mathematically. His students can witness and participate in spontaneous mathematical thinking and see Mathematics gas a sense-making pursuit. This approach is distinctive because before college, few students get the opportunity to see their teachers engaged in mathematical practice, yet the students are expected to understand the nature of that practice.

o)   Developing note-taking skills

Both tutors agreed that students do not know how to take notes effectively. Students need good concise notes to refer to and to form a basis for their learning.

Note - taking, just like in the case of study skills, have not received much attention during the two years. Although I was responsible for the tutoring of study skills during the vacation schools, I realized that it was almost an impossible task to teach them effective study skills since the contact sessions only allowed for one hour tutoring. However, apart from the few handouts that I gave students, I provided the UNAM Northern Campus library with a series of 9 audio visual cassette tapes on study skills, which were recorded during a series of UNAM on Air radio programmes.

The English tutor informed me that she often found students listening to it.

p)   Career guidance

Many of the students do not understand the range and possibilities of study in the sciences. During the vacation schools, faculty members of the Science Faculty are invited to speak to the students about what their courses entail and what the job opportunities are. Often times, successful people in the community were invited to talk to students about their work, and what it takes to get there.

q)   An effective counseling network

Although this is not an academic issue, many students do have personal problems, which can influence their work negatively.

Financial matters are a major cause of concern for students. Coming from economically disadvantaged backgrounds, many potential students either cannot get financial aid or just cannot garner enough money to pay for tuition, fees, books and supplies. The most significant

factor influencing this is that state funding do not make provision for Access Programmes. Consequently, their success depends upon donor funding. In order to address this problem, the Ford Foundation has agreed to sponsor N$1 000, 00 for every UAP student, for a period of five years. UNAM has agreed to pay the tutors' salaries, housing and medical aid.

Although most of the problems are related to finance, transport and accommodation, admissions requirements and restrictive policies are institutional access barriers that need to be monitored and addressed when necessary. Although UNAM has eliminated barriers with respect to its general admissions policy for the UAP, the strict entry requirements laid down by UNAM for admission to Science and Agriculture degrees means that only a small number of students will enter these programmes.

Finally, to be truly compensatory, is not sufficient merely to select and provide variety of learning experiences, and to build self-confidence. Higher education institutions are flavoured by norms that govern the nature of acceptable social experiences and relationships (Lave and Wenger 1998). As indicated earlier in section 4.5.5, persons from disadvantaged backgrounds often come from different cultural settings, albeit disadvantaged ones, and do not share the "traditional" values of mainstream learning and schooling. They may, indeed, not have knowledge of the cultural backdrop that colours the educational enterprise (Boughey 2000). McNamee (1994) states that a person from a disadvantaged background who is well compensated in mathematical concepts and processes, and who has sufficient self-confidence, could well fail in mainstream institutional culture because of a lack of awareness of the rules or norms of a foreign culture. To be truly compensatory, Access Programmes like the UAP must be aware of their own operational culture, and be culturally sensitive to the backgrounds of their students (Hixon and Tinzmann 1990). If these programmes seek the successful assimilation of their students into higher education institutions, it is imperative that they assist persons from different cultural backgrounds to accommodate the values of the dominant culture.

In the UAP, students are assisted to learn and accommodate institutional culture by providing opportunities for students to participate in debates; investigate the University's culture through vacation schools or by viewing specific videos about different university settings; talk to different lecturers about career possibilities and develop strategies through counseling, that will enable students to cope in the new, unfamiliar cultural setting.

6.6 CONCLUSION

Within Namibia, the UAP has made a significant contribution to the Government's social justice agenda. As a result of these programmes, there is now better representation in higher education of persons from the Ondangwa East and Ondangwa West Educational Regions. Through the tutors' creative use of study materials and access to the Internet in the Northern Campus library the students are exposed to many new experiences. As a result the narrow horizons that typify so many of the students when they start the course are widened considerably and at the end of the course they are much more confident, independent and articulate.

By their participation in the programme, there are now persons from disadvantaged backgrounds who would not normally have had access to higher education, studying for degrees and diplomas in institutions of higher education around the country. This is not to suggest, however, that the UAP has been successful in its quest of assimilating disadvantaged persons into higher education. Not all people who enrolled into the programme pass it. Access and Equity Programmes alone can not be expected to facilitate social transition for people of "severely disadvantaged" backgrounds or cultures that are radically different to that of mainstream higher education institutions.

For those that have successfully completed the UAP, and have managed to shift into the culture of the University of Namibia, subsequent academic performance has been more than satisfactory. Anecdotal evidence collected from academic staff reveal that the academic

performance of graduates of the Access Programme are comparable with that of mainstream students, and are performing "appropriately" within classes.

However, the programme only caters for a small number of school leavers in the North central regions and a way has to be found to institute changes which will benefit a much larger number of young people who are desperately seeking a standard of education which is higher than the one that is currently available to them. It is imperative, therefore, that ways are found of raising educational standards in primary, junior secondary and senior secondary schools so that learners who have the potential to study at tertiary level can gain the necessary qualifications at school without having to spend a year on a bridging course.

As outlined above, Access Programmes do not seek radical social reform or reconstruction. Rather, they seek to change the nature of individuals, to assimilate them into the dominant, mainstream social structures and practices. By providing opportunities for disadvantaged persons to fill the gaps in knowledge of concepts, processes, self and culture, Access Programmes like the UAP seek to prepare students for entry into institutions of higher education. What remains unchallenged, however, is the nature of the mainstream. Tertiary institutions need to examine their practices as well, so that through a range of innovative initiatives they can become truly accessible to far greater numbers of potential students while at the same time maintaining high academic standards.

The challenge for Namibia still lies ahead: if equality of opportunity to social goods like education is to be instituted for all Namibians, then more then filling gaps is needed. The privileged position of the "normalized" mainstream and its relationship with the margins must also be reviewed.

CHAPTER 7

SUMMARY AND MAIN FINDINGS

7.1 INTRODUCTION

*T*his final chapter provides a summary of the highlights and the main findings of the thesis and makes recommendations for improving the programme as well as proposing areas for further research.

7.2 MOTIVATION FOR THE STUDY

In Namibia a large group of the population has been disadvantaged educationally by the former system of apartheid. In chapter 1 the reasons for this were discussed. It was also argued that it will take a long time to level the playing fields, so for some considerable time it will be necessary to provide special programmes that will provide meaningful routes for students from formerly disadvantaged groups into higher education. I also argued that the development of a full academic identity and the autonomous use of skills and practicing the code of conduct of the academic community cannot be assumed when educational disadvantage at school is a major factor. It was suggested that these aspects be included in the design of Access Programmes. Furthermore, it was argued that it is in the country's interest to train more scientists, engineers and technologists to drive the economy so as to ultimately improve the quality of life for all.

7.3 THE IMPLEMENTATION OF THE UAP

To respond to the need to prepare more students for courses in Science, the University of Namibia has introduced an Access Programme that is particularly aimed at unqualified school leavers whose IGCSE results failed to qualify them for entry into the University of

Namibia or the Polytechnic of Namibia. The programme was introduced in March 1999 and since than has catered for three groups of students. The curriculum consists of:

IGCSE Mathematics

IGCSE English

7.4 RESEARCH QUESTIONS

The main research questions that this study addressed were:

1. Why was the UAP established and what form has it taken?

2. What were the difficulties that students experienced in bridging the gap between school and university?

3. What educational objectives must be set to ensure that the majority of students succeed in the programme?

4. What were the successes and failures of UAP and why?

7.4.1 Why was the UAP established and what form has it taken?

It was said in Chapter 1 that a lack of students in Science, technology and engineering subjects and the under representation of Black students in these subjects is not only a Namibian phenomena; this situation is a common phenomenon in most developing countries. The current position in Namibia is that school leavers who attain good results in general, nevertheless experience problems in the study of Mathematics and English. These problem areas may be seen as a result of the past educational system.

With the establishment of the UAP, it was hoped to improve the situation by providing an opportunity for disadvantaged students within the Ondangwa East and Ondangwa West Education region, whose Mathematics and English marks in IGCSE when they took it at the

end of their school career failed to qualify them for entry into the University or Polytechnic of Namibia. The course would not only contribute to the improvement of student selection into UNAM's programme, but it would also develop the students' general knowledge and independent study skills. It would also develop their leadership skills through the participative approach that the course adopted. The course would also help to establish permanent programmes in association with other agencies, and to develop a prototype that could be replicated elsewhere in the country.

The UAP has passed through three stages of development and it is the second stage that was analysed in this study

7.4.2   Difficulties that students experienced in the UAP

This research question was investigated in several ways. Firstly, in chapter 3 a study of the literature on access barriers was undertaken. Secondly, chapter 4 reported on typical problems experienced by disadvantaged students in South Africa as well as in other parts of the world and suggested that the existing undeveloped potential of disadvantaged students be identified and coached through the means of Access Programmes. A challenge was made to institutions with large numbers of first generation students to create a conducive environment whereby students can enroll in, persevere through, and graduate out of the field of study they have enrolled for. Finally, the particular problems experienced by students at the UAP were investigated and were reported in chapter 5, (table 5.6).

The scholastic problems of the access students as shown in table 5.6 are similar to those identified by other researchers and have their roots in the inadequate schooling and a poor socio-economic background.

These problems are:

- Communication difficulties as a result of learning through the medium of a second language and being taught by ESL teachers.

- A lack of solid grounding in mathematics. This is due to pupils being taught by under-qualified teachers.

- Poor study methods as a result of students being encouraged to rote learn. Also associated with this problem are poor problem solving skills.

- Poor life skills which manifest themselves in poor time management, lack of self-confidence, and a poor study ethic.

- Lack of reading culture.

- Little or no career guidance at school, which often leads to uncertainty in career choice.

Based on these factors, student needs were identified which in turn led to the setting of the educational objectives in section 5.6, which were to guide the tutors in their teaching.

7.4.3   Is the programme achieving its objectives?

This question was addressed both quantitatively and qualitatively.

Quantitative analysis

This investigation was conducted by interviewing both tutors and by looking at end year examination results as well as comparing examination results from year one with year two.

The students' examination results for the first two years of the Access Programme show a significant improvement in grades, demonstrating that it is possible to redress past educational disadvantage through an upgrading programme of this type. On average, students improved their symbols by one grade (averaging 1.27 for English and 1.21 for Mathematics) as was shown in table 5.7.

Qualitative Analysis

Both tutors were interviewed and asked how they addressed the student's needs. All the identified student needs as well as the educational objectives arising from these were addressed by the programme. This was confirmed by the performance of the students in the final examinations.

7.4.4   What were the successes and failures of the UAP and why?

In conducting the research, certain aspects which contributed to the success of the programme have come to the fore. These were investigated by studying examination results, interviewing tutors and analyzing questionnaires given to UAP students. They are listed as follow:

1. The curriculum was suitable for preparing students for entry into UNAM and the Polytechnic of Namibia.

    *   With additional attention to mathematics, students were able to improve their grades.

    *   The teaching in English improves the students' communication abilities including English reading and writing skills.

2. The programme helps students to develop mature, confident and motivated attitudes towards their studies.

3. The programme helps the students to develop a responsible behaviour in class:

    *   They are more interactive in class, asking questions and taking part in discussions.

    *   They are assertive in class and often take leadership roles.

    *   They generally attend classes regularly.

    *   They set goals and know how to achieve them.

    *   They generally finish assignments on time.

4.   The programme helps the students develop better cognitive skills:

*   The students try to understand their work.

*   They learn how to work under pressure.

*   They know how to study.

*   They develop good time management skills

*   They often work collaboratively in small groups.

5.   The tutors are very dedicated to the programme. They adopt a caring attitude

        towards the students and become their mentors and counselors. Their advice is

        sought by the students even after they have begun university studies.

6.   The programme helps the students to choose their careers.

7.5 RECOMMENDATIONS

1.   The UAP should take a close look at its selection policy and channel more students
        through the progamme in order to enhance the students' chances of success. This
        would entail not only focusing on the Faculty of Science, but allowing students to choose
        their area of study in higher eduction.

2.   The success rate of the UAP should be improved. This can be done by improving the
        selection criteria. Better students are likely to be channeled to the programme if the first
        recommendation is implemented.

3.   The dissemination of the programme to other institutions is recommended, provided
        that strict guidelines are followed.

4.   Access students should be encouraged to do peer tutoring amongst Grade 12 students
        in their own communities.

5.   Top students could be used to do "out-of-hours" tutoring to peers, and by doing so,
        earn some money.

6.   Business communities should be encouraged to grant bursaries to top access students.

7.   Tutors should encourage the students to adopt a deeper approach to their studies and should adjust the tutoring and assessment styles accordingly.

8.   The university programmes should also be changed where possible to make provision for the so-called "lesser prepared students". And

9.   That UNAM and the Polytechnic of Namibia should collaborate more closely with local schools.

7.6 LIMITATIONS OF THE STUDY

7.6.1 Lack of student contribution in assessing the programme

A major handicap to the study was the fact that I did not obtain a student perspective of how students perceived the programme or what their perception was of the tutors. Although all efforts were made to be as objective as possible, I acknowledge at this stage that exclusion of the student voices in attempting to understand the UAP, might be viewed as subjective rather than objective.

7.7 AREAS FOR FURTHER RESEARCH

In conducting this study, two areas for further research were identified.

1.   A close study should be made of why the students are more successful in Mathematics than in English.

2.   The performance of former UAP students in higher education should be monitored.

7.8 CONCLUSION

This case study found that the UAP implemented at the UNAM Northern Campus at Oshakati addresses the academic needs of students and adequately prepares students for the Science faculty at UNAM. The programme is not only cost effective but also provides an access route for those students who do not gain direct entry to the university.

Finally, behind every Access or Developmental Programme, national or international, is the belief that education is humanity's hope for a destiny that matches its noblest goals. Access and developmental education fortifies this hope, but little can be realized if we tolerate programmes that are ad hoc at best and afterthoughts at worst. It makes good economic sense and sound pedagogy to explore education for the academically under-prepared with both a clinical and humane spirit. The basic vision of developmental education must be the improvement of humankind.

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Appendix A

INTERVIEW QUESTIONS FOR TUTORS IN THE UAP

1. What are the main difficulties that the UAP students experience in your subjects?

2. What do you do to overcome these difficulties?

3. Do you successfully remediate these problems?

4. How do you know that the students have overcome them?

5. Is there anything you would like to change in your subject and why?

6. What do you think has been particularly successful in your subject and why?

7. What has not been successful?

Appendix B

PERSONAL PROFILE OF THE UAP 2000 INTAKE: APPENDIX B

Biographic details

Question 1: Age distribution

Age group	Frequency	Percent
Younger than 21	56	59.6
21-23	31	33.0
23-25	5	5.3
25 and older	2	2.1
TOTAL	94	100.0

The biographical information shows that more than 56 (59.6%) of the students are 21 years of age and younger. 31 (33.0%) were in the age groups 21-23, while 7 students were 23 years and older.
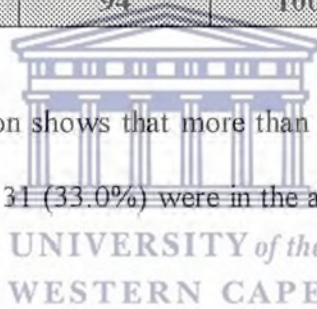
Question2: Gender distribution

Gender	Frequency	Percent
Male	44	46.8
Female	50	53.2
TOTAL	94	100.0

Of the 94 students who answered the questionnaire, 50 (53.2%) were female and 44 (46.8) were male. This was pleasing as one of the objectives of the access programme is to try and encourage female enrolments to the programme.

Question 3: Home language

Home language	Frequency	Percent
Oshiwambo	40	42.6
Oshindonga	27	28.7
Oshikwanyama	24	25.5
Other	2	2.1
missing	1	1.1
TOTAL	**94**	**100**

The majority of the students 40 (42.6%) uses Oshiwambo as their main language, while 27 (28.7%) make use of Oshindonga and 24 (25.5%)of Oshiwanyama as home language. Only 2 (2.1%) indicated that they use another language.

Question 4: Place of study preferred by students

	Frequency	Percent
Bedroom	38	40.4
Kitchen	8	8.5
Living	13	13.8
room	9	9.6
Outside	26	27.7
room		
Other		
TOTAL	94	100,0

From the above one depicts that students have a variety of places where they study. From the 94 students who answered the questionnaire, 38 (40.4%) indicated that they prefer to study in their bedroom, while 26 (27.7%) indicated 'other'. This could well easily include 'under a tree', or as many students mentioned to me, "up in a tree".

Question 5: Study conditions under which students have to study

	Frequency	Percent
Quiet	44	46.8
Noisy	50	53.2
TOTAL	94	100,0

From the 94 students who answered the questionnaire, 50 (53.2%) indicated that they have to study under noisy circumstances, while 44 (46.8%) are lucky to have a quiet place to study in.

Question 6: Access to electricity

	Frequency	Percent
Yes	38	40.4
No	56	59.6
TOTAL	94	100.0

Of the 94 UNAM access students who answered the questionnaires, 56 (59.6%) do not have access to electricity, while only 38 (40.4%) have access to electricity at home.

Question 7: Have a telephone, or have access to a telephone

	Frequency	Percent
	56	59.6
	38	
TOTAL	94	100.0

Looking at question 7, the situation is revered. Where in question 6, 56 of the students had no access to electricity; in question 7, the same number of students indicated that they have access to a telephone.

Question 8: Responsible for other duties at home, apart from studying

	Frequency	Percent
Yes	83	88.3
No	11	11.7
TOTAL	94	**100.0**

This table indicates that 83 (88.3%) of the students have apart from their studies also other duties to fulfil. Only 11 (11.7%) are not burdened with household tasks like fetching water or firewood, cooking or even working in the fields.

Question 9: How do students get to the UNAM Northern Campus?

	Frequency	Percent
Own car	1	1.1
Friend's car	3	3.2
Taxi/bus	40	42.6
Bicycle	1	1.1
Hitchhike	3	3.2
Walk	45	47.9
other	1	1.1
TOTAL	94	100.0

From the 94 students who completed the questionnaire, 40 (42.6%) students make

use of taxi and bus services, while 45 (47.9%) walk to the campus. These statistics

are very much in line with the usual means of transport in the Ondangwa regions.

Question 10: Distance from Oshakati Northern Campus

	Frequency	Percent
Walking distance (<5km)	33	35.1
5-10 km	27	28.7
more than 20 km	23	24.5
Other	1	1.1
TOTAL	94	100.0

The majority of the students 33 (35.1%) are within walking distance of the campus.

27 (28.7%) are living between 5-10 km away from the campus, while a large

number of 23 (24.5%) are living more than 20 km away from the campus.

See question 11 and 12 under Figure 5.2 and Figure 5.3

Question 13: Employment of parents

	Frequency	Percent
Yes	30	31.9
No	62	66.0
Missing	1	1.1
TOTAL	94	100.0

From the 94 students who responded to the questionnaire, 62 (66.0%) indicated

that their parents are unemployed, while 30 (31.9%) stated that their parents were

employed.

Question 14: Financial support by family members

	Frequency	Percent
Father/mother	47	50.0
Grandparents	11	11.7
Brother/sister	18	19.1
Other	18	19.1
TOTAL	94	100.0

From the above, it shows that although 66% of the parents are unemployed, 47 (50%) of the students are still supported financially by their parents. Older brother and sisters as well as grandparents also contribute to their financial problems.

Question 15: Who encourages students to study?

	Frequency	Percent
Father/mother	56	59.6
Grandparents	10	10.6
Brother/sister	13	13.8
Other	15	16.0
TOTAL	94	100.0

The majority of students indicated that their parents are the main source of encouragement to them. Others, which could include friends, teachers or other

relatives, made out 16% of the responses. 13 (13.8%) stated that brothers and sisters motivate them to study, while grandparents contributed to 10.6%.

Question 16: Have you ever failed any school grade?

	Frequency	Percent
Yes	45	47.9
No	49	52.1
TOTAL	**94**	**100.0**

Of the 94 students who completed the questionnaire, 45 (47.9%) stated that they have failed one or more school grades. 49 (52.1%) indicated that they have never failed any school year before.

Question 17: Have you ever had extra teaching in English, while at school?

	Frequency	Percent
Yes	11	11.7
No	82	87.2
Missing	1	1.1
TOTAL	**94**	**100.0**

Only 11 students have ever had any extra tutoring in English, while at school, against the 87.2% students who never had any extra teaching in English.

Question 18: Have you ever had any extra teaching in mathematics, while at school?

	Frequency	Percent
Yes	23	24.5
No	70	74.5
Missing	1	1.1
TOTAL	94	100.0

In this category, 23 (24.5%) students received extra tuition in Mathematics, whereas 70 (74.5%) never received any extra training.

Question 19: Have you ever received any training in how to improve your study skills?

	Frequency	Percent
Yes	42	44.7
No	52	55.3
TOTAL	94	100.0

According to the responses obtain from students, it seems as if 42 (44.7%) has

received some sort of guidance in how to study, while 52 (55.3%) students never received any such training.

Question 20: Did you ever have a guidance teacher at your school?

	Frequency	Percent
Yes	56	59.6
No	36	38.3
Missing	2	2.1
TOTAL	94	100.0

In this category, it seems as if 56 (59.6%) students had a guidance teacher attach to their school, comparing to 36 (38.3%) who never had a guidance teacher.

Question 21: Indicate which of the following facilities were available at the school during your final Grade 12 year?

Facility	Yes	Frequency	Percent	No	Frequency	Percent
Electricity	94	94	100.0			
Enough classrooms	90	90	95.7	4	4	4.3
Enough desks and chairs	83	83	88.3	11	11	11.7
Blackboards and chalk	92	92	97.9	2	2	2.1
Physical science labs	87	87	92.6	7	7	7.4

School library	83	83	88.3	10	10	10.8
Sport facilities	84	84	89.4	10	10	10.6
Photocopier/copy machine	85	85	90.4	9	9	9.6
Tape recorder	83	83	88.3	11	11	11.7
Water	94	94	100.0			

The UNAM Access students reported on the facilities available at their schools. All of them had electricity and water, while only two schools did not have a proper black board facility. There were 11 (11.7%) schools that did not have a school library or any tape recording facility. There were 11 (11.7%) schools that did not have enough school desks and chairs for students. The existence of a physical science or biology laboratory was reported by up to 92.6% of students, while 7 (7.4%) of the Grade 12 students never had a Science laboratory to work in.
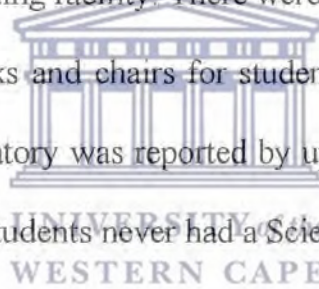
Question 22: How many children were in your grade 12 class?

	Frequency	Percent
Less than 30	22	23.4
30 – 40	69	73.4
40 - more	3	3.2
TOTAL	**94**	**100.0**

The majority of the students who answered the questionnaire, stated that 69 (73.4%) of the students were in a class with 30 – 40 pupils. Only 3 (3.2%) of the students attended a school where there were more than 40 students in a class. 23 (23.4%) students stated that they were less than 30 pupils in a class.

Question 23: Did your teacher encourage students to speak English during the English period?

	Frequency	Percent
Yes	89	94.7
No	5	5.3
TOTAL	94	100.0

89 (94.7%) students confirmed that they were encouraged to speak English during the English lesson, whereas only a mere 5 (5.3%) students were not encouraged.

Question 24: Were you allowed to ask questions in the Maths class?

	Frequency	Percent
Yes	82	87.2
No	12	12.8
TOTAL	94	100.0

82 (87.2%) of the students were allowed to ask questions, when they did not understand a calculation, while 12 (12.8%) is of the opinion that they were not allowed to ask questions in class.

Question 25: My main reason for staying at school is to get a better job.

	Frequency	Percent
Yes	80	85.1
No	14	14.9
TOTAL	94	100.0

The majority of students 80 (85.1%) stayed on at school because of better working possibilities, while 14 (14.9%) stayed on for different reasons.

Question 26: I often had to learn some things several time in order to understand them.

	Frequency	Percent
Yes	78	83.0
No	11	11.7
Missing	5	5.3
TOTAL	94	100.0

The majority of students 78 (83.0%) stated that they often have to learn things several times until they know it off by heart, whereas 11 (11.7%) don't agree with that.

Question 27: I often panic in tests or in the examination

	Frequency	Percent
Yes	63	67.0
No	30	31.9
Missing	1	1.1
TOTAL	94	100.0

63 (67.0%) of students admitted that they do panic when writing tests or examination, While 30 (31.9%) do not panic when writing tests or examination.

Question 28: When studying, I usually try to memorize important facts.

	Frequency	Percent
Yes	70	74.5
No	24	25.5
TOTAL	94	100.0

70 (74.5%) of the students memorize when learning, while 24 (25.5%) do not learn

of by heart.

Question 29: I often got criticised for introducing different ideas into my answers.

	Frequency	Percent
Yes	46	48.9
No	48	51.1
TOTAL	94	100.0

46 (48.9%) of the students stated that they were not encouraged to introduce new

ideas when answering questions, while 48 (51/1%) were encourage by teachers to

apply their knowledge when appropriate.

Question 30 I did not enjoy speaking in class in front of my classmates.

	Frequency	Percent
Yes	33	35.1
No	61	64.9
TOTAL	94	100.0

From the 94 students who completed the questionnaire, 33 (35.1%) stated that they had a problem to speak in front of their classmates, while 61 (64/9%) had enough courage to speak in front of the classmates.

Question 31: The best way for me to understand difficult concepts was to memorise them.

	Frequency	Percent
Yes	70	74.5
No	24	25.5
TOTAL	94	100.0

Table 30 and table 27 are exactly the same. Both questions were testing whether or not students made use of memorization to obtain better marks. 70 of the 94 students therefore are still relying on memorizing.

Question 32: I learned things by writing them over and over.

	Frequency	Percent
Yes	71	75.5
No	22	23.4
Missing	1	1.1
TOTAL	94	100.0

This table again fits in with table 27 and 30, as it is trying to test how many students are making use of rote learning. Here 71 (75.5%) of the 94 students prefer to rewrite certain facts until they know them, against 22 (23.4%) who do not do it.
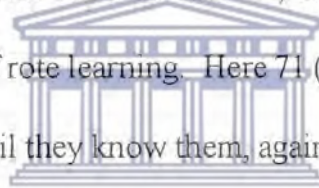
Question 33: I wrote down what the teacher wrote on the board

	Frequency	Percent
Yes	66	70.2
No	28	29.8
TOTAL	94	100.0

The majority of students 66 (70.2%) agree that they repeat everything, which has been written on the board, whereas 28 (29.8%) of the students do not see the need to copy everything of the board.

Question 34: I tried to participate in discussions whenever possible.

	Frequency	Percent
Yes	77	81.9
No	15	16.0
Missing	2	2.1
TOTAL	94	100.0

A very positive group of 77 (81.9%) students liked to participate in discussions, whereas 15 (16.0%) preferred not to participate in discussions.
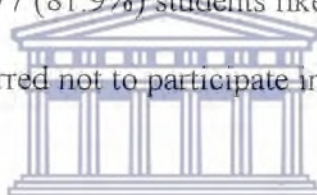
Question 35: I never seemed to have enough time to do my homework.

	Frequency	Percent
Yes	43	45.7
No	51	54.3
TOTAL	94	100.0

43 of the students who completed the questionnaires stated that they never had enough time to complete their homework, while the majority 51 (54.3%) disagreed.

Question 36: Whenever I received good marks, it was usually because I studied hard.

	Frequency	Percent
Yes	78	83.0
No	16	17.0
TOTAL	94	100.0

The majority of students 78 (83.0) felt that they were responsible for their own academic achievements, while 16 (17.0) do not agree.
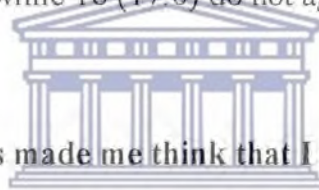
Question 37: Low marks made me think that I am not clever.

	Frequency	Percent
Yes	74	78.7
No	18	19.1
Missing	2	2.1
TOTAL	94	100.0

74 (78.8%) of the students relate low marks with low intelligence, while 20 (21.3%) do not agree with that.

Question 38: Poor marks told me that I did not study hard enough

	Frequency	Percent
Yes	82	87.2
No	11	11.1
Missing	1	1.1
TOTAL	94	100.0

82 (87.2%) of the 94 students agreed that they would get low scores if they do not study hard, whereas 11 (11.1%) do not agree with them.
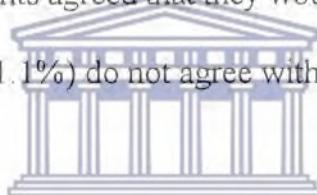
Question 39: Sometimes I felt I had to consider myself lucky to have received the good marks that I got.

	Frequency	Percent
Yes	62	66.0
No	32	34.0
TOTAL	94	100.0

Of the 94 students who responded to the questionnaire, 62 (66.0%) stated that they consider themselves lucky, if they receive good scores, against the 32 (34.0%) who do not agree with that.

Question 40: I often got low marks because the teacher didn't like me.

	Frequency	Percent
Yes	7	7.4
No	87	92.6
TOTAL	94	100.0

The majority of the students 87 (92.6%) do not agree that teachers will give them low marks just because the teacher does not like them. There are however, 7 students who do agree that teachers could give you a low mark if they do not like you.
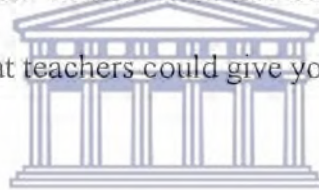
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Appendix C

Table 5.1: Provision of sanitary facilities and water supply at schools in Namibia (MBEC EMIS 1998)

Region	Numbers of toilet units for learners			Numbers of schools with toilets for learners			Numbers of schools with toilets for teachers			Numbers of a water supply		
	Flush	pit	%flush	No toilets	Have toilets	%with toilets	No toilets	Have toilets	%with toilets	No water	Have water	%with water
Total	9 222	1 774	83.9	602	855	58.7	646	811	55.7	617	840	57.7
Katima Mulilo/Caprivi	216	183	54.1	87	56	39.2	83	60	42.0	50	93	57.7
Rundu/Okavango	318	354	47.3	165	71	30.1	166	70	29.7	147	89	37.7
Ondangwa East	867	550	61.2	163	187	53.4	176	174	49.7	224	126	36.0
Ohangwena	490	362	57.5	94	110	53.9	103	101	49.5	147	57	27.9
Oshiktoto	377	188	66.7	69	77	52.7	73	73	50.0	77	69	47.3
Ondangwa West	750	503	59.9	158	191	54.7	175	174	49.9	177	172	49.3
Omusati	412	314	56.7	123	113	47.9	136	100	42.4	145	91	38.6
Oshana	338	189	64.1	35	78	69.0	39	74	65.5	32	81	71.7
Khorixas	1 536	34	97.8	24	91	79.1	30	85	73.9	17	98	85.2
Kunene	466	17	96.5	21	43	67.2	24	40	62.5	14	50	78.1
Erongo	1 070	17	98.4	3	48	94.1	6	45	88.2	3	48	94.1
Windhoek	3 537	60	98.3	5	143	96.6	11	137	92.6	2	146	98.6
Otjozondjupa	1 077	18	98.4	3	50	94.3	7	46	86.8	1	52	98.1
Omaheke	461	13	97.3	1	29	96.7	1	29	96.7	1	29	96.7
Khomas	1 999	29	98.6	1	64	98.5	3	62	95.4	-	65	100.0
Keetmanshoop	1 885	90	95.4	-	108	100.0	5	103	95.4	-	108	100.0
Hardap	1 028	49	95.5	-	60	100.0	1	59	98.3	-	60	100.0
Karas	857	41	95.4	-	48	100.0	4	44	91.7	-	48	100.0

Table 5.2: Provision of teachers' housing and electricity and telephone supply at schools

Region	Numbers of hoursing units for teachers			Numbers of schools with any housing for teachers			Numbers of schools with electricity supply			Numbers of schools with telephones		
	Single quart.	Family quart.	Total	No housing	Have housing	%with housing	No Elec.	Have Elec.	%with Elec.	No Tel.	Have Tel.	%with Tel.
Total	1 180	1 364	2 544	1 115	342	23.5	963	494	33.9	1 016	441	30.3
Katima Mulilo/Caprivi	287	153	440	89	54	37.8	109	34	23.8	114	29	20.3
Rundu/Okavango	50	58	108	223	13	5.5	178	58	24.6	203	33	14.0
Ondangwa East	103	79	182	333	17	4.9	292	58	16.6	322	28	8.0
Ohangwena	47	43	90	198	6	2.9	177	27	13.2	194	10	4.9
Oshiktoto	56	36	92	135	11	7.5	115	31	21.2	128	18	12.3
Ondangwa West	77	127	204	332	17	4.9	294	55	15.8	323	26	7.4
Omusati	52	74	126	227	9	3.8	203	33	14.0	224	12	5.1
Oshana	25	53	78	105	8	7.1	91	22	19.5	99	14	12.4
Khorixas	191	241	432	55	60	52.2	40	75	65.2	41	74	64.3
Kunene	146	99	245	28	36	56.3	35	29	45.3	36	28	43.8
Erongo	45	142	187	27	24	47.1	5	46	90.2	5	46	90.2
Windhoek	292	455	747	54	94	63.5	18	130	87.8	13	135	91.2
Otjozondjupa	96	184	280	16	37	69.8	9	44	83.0	10	43	81.1
Omaheke	90	151	241	7	23	76.7	1	29	96.7	1	29	96.7
Khomas	106	120	226	31	34	52.3	8	57	87.7	2	63	96.9
Keetmanshoop	166	231	397	26	82	75.9	32	76	70.4	-	108	100.0
Hardap	96	124	220	15	45	75.0	19	41	68.3	-	60	100.0
Karas	70	107	177	11	37	77.1	13	35	72.9	-	48	100.0

Table: 5.3: Professional and academic qualifications of secondary teachers

Region	Total	Teachers without formal teacher training				Teachers without formal teacher training			
		Total	Less than Gd 12	Gd 12 or 1-2 yrs tertiary education	More than 2 yrs tertiary education	Total	Less than Gd 12	Gd 12 or 1-2 yrs tertiary education	More than 2 yrs tertiary education
Total	5 876	722	131	396	195	5 154	511	3 455	1 188
Katima Mulilo	611	82	18	44	20	529	49	401	80
Rundu	438	122	38	73	11	317	50	192	75
Ondangwa East	1 076	154	11	113	30	922	122	690	110
Ohangwena	583	67	6	52	9	516	71	398	47
Oshikoto	493	87	5	61	21	406	51	292	62
Ondangwa West	1 659	171	45	86	40	1 488	221	1 124	143
Omusati	955	116	31	69	16	839	141	624	74
Oshana	704	44	14	17	24	649	80	500	69
Khorixas	496	52	5	28	19	444	29	240	175
Kunene	192	30	5	20	5	162	20	100	42
Erongo	304	22	-	8	14	282	9	140	133
Windhoek	1 110	94	7	33	54	1 016	27	523	466
Otjozondjupa	261	31	5	17	9	230	14	143	73
Omaheka	154	17	2	12	3	137	8	109	20
Khomas	695	46	-	4	42	649	5	271	373
Keetmanshoop	437	45	6	19	20	392	13	252	127
Hardap	247	29	3	13	13	218	7	148	63
Karas	190	16	3	6	7	174	6	104	64
Special Schools	48	2	1	-	1	46	1	33	12

About 89% of teachers who teach secondary grades have themselves passed Grade 12 or a higher level of academic training.

Table 5.4: Numbers of teachers and learner: teacher ratios: 1996 to 2000
(EMIS Statistical Yearbook, 2001).

| Education region | Year | | | | | Mean annual increase |
	1996	1997	1998	1999	2000	
Namibia total: teachers	16 679	16 894	17 085	17 241	17 645	1.4%
L/teacher ratio	28.7	29.0	29.1	29.0	29.1	0.4%
Katima Mulilo teachers	1 141	1 148	1 157	1 086	1 086	-1.2%
L/teacher ratio	22.4	22.3	20.9	21.1	20.7	-1.9%
Rundu teachers	2 158	2 125	2 165	2 150	2 177	0.2%
L/teacher ratio	25.0	26.7	27.0	27.0	27.5	2.5%
Ondangwa East teachers	3 053	3 248	3 295	3 403	3 569	4.0%
L/teacher ratio	38.7	37.1	37.0	36.1	35.7	-2.0%
Ondangwa West teachers	4 173	4 166	4 248	4 355	4 416	1.4%
L/teacher ratio	32.8	33.1	32.5	31.7	31.8	-0.8%
Khorixas teachers	1 319	1 322	1 330	1334	1 382	1.2%
L/teacher ratio	24.5	25.3	25.8	26.2	25.7	1.2%
Windhoek teachers	3 240	3 319	3 345	3 398	3 469	1.7%
L/teacher ratio	24.0	24.6	25.4	25.9	26.6	2.6%
Keetmanshoop teachers	1 465	1 431	1 405	1 373	1 405	-1.0%
L/teacher ratio	22.3	23.4	24.3	24.7	24.8	2.7%

Table 5.5: Proportions of schools having different learner: teacher ratios (EMIS 2001)

Region	Average ration of L/teacher	Percentage of schools in each rance of learner : teacher						
		Total	<20	20-29.9	30-39.9	40-49.9	50-59.9	60-79.9
Namibia total	**29.1**	**100**	**12.2**	**42.8**	**30.6**	**10.9**	**2.8**	**0.7**
Katima Mulilo	21.4	100	35.5	63.1	0.7	0.7	-	-
Rundu	27.8	100	14.6	51.7	29.5	1.9	1.1	1.1
Ondangwa East	37.0	100	2.9	13.7	41.1	32.3	8.9	1.1
Ohangwena	40.0	100	1.0	7.4	40.7	38.7	10.8	1.5
Oshikoto	33.1	100	5.5	22.6	41.8	23.3	6.2	0.7
Ondangwa West	32.6	100	5.1	27.8	53.1	11.5	2.0	0.6
Omusati	32.5	100	6.3	30.0	51.3	9.6	2.5	0.4
Oshana	32.8	100	2.6	23.3	56.9	15.5	0.9	0.9
Khorixas	26.0	100	10.3	65.8	22.2	1.7	-	-
Kunene	27.2	100	7.7	60.0	29.2	3.1	-	-
Erongo	25.1	100	13.5	73.1	13.5	-	-	-
Windhoek	25.4	100	16.0	73.3	9.3	0.7	-	0.7
Otjozondjupa	27.2	100	13.0	70.4	13.0	1.9	-	1.9
Omaheke	25.8	100	12.5	78.1	9.4	-	-	-
Khomas	24.4	100	20.3	73.4	6.3	-	-	-
Keetmanshoop	24.3	100	20.8	75.5	3.8	-	-	-
Hardap	24.2	100	25.0	73.3	1.7	-	-	-
Karas	24.4	100	15.2	78.3	6.5	-	-	-
Special Schools	8.5	100	100.0	-	-	-	-	-