CAREER CHOICES OF BLACK GRADE 12 LEARNERS IN KWAZULU-NATAL SCHOOLS: IMPLICATIONS FOR SUSTAINABLE DEVELOPMENT

By

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DECLARATION

I, Sipho Sibusiso Mmema, hereby declare that the mini- dissertation entitled *Career Choices of Black Grade 12 Learners In Kwazulu-Natal: Implications For Sustainable Development* is entirely my own work and has not been submitted as a dissertation/thesis at any other institution and that all of the sources that I have used and quoted have been indicated and acknowledged by means of a complete reference.

Signed   by <u>SIPHO SIBUSISO MMEMA</u> on the 16 day of AUGUST 2010 at <u>THE UNIVERSITY OF ZULULAND</u>.

DEDICATION

I would like to dedicate this work to my late mother, Elizabeth Mabaso, and my late grandmother, Grace Mkhombe, my late grandfather James Mmema and my son Thabiso Sandile Mmema.

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ABSTRACT

Skills development is a crucial issue in South Africa as the economy of the country will only grow if there are people with the right skills and expertise to run all sectors of the economy. This study examined the career choices of Black Grade twelve learners in order to determine whether at this level learners have broadened their career choices to include scarce areas such as, for example, Science, Mathematics and Economics Management Science. The choice of careers is an important sustainable development issue, because without relevant expertise the economy of the country will not improve. Secondly, the demise of apartheid opened up careers which were previously denied to Black people; it is for this reason that the researcher examined the career choices of Black Grade twelve learners in the Province of KwaZulu-Natal in the Republic of South Africa.
The study made use of questionnaires to establish what kind of career choices Black Grade twelve learners made and also to find out whether there was any difference between the careers chosen by girls and boys and also between rural and urban learners.

The study found that the general career choices of both males and females had changed by the time they reached Grade twelve, seen against career studies done at Primary school level (Mmema, 2010). In this study, some males currently chose careers that were previously only popular with females in grade seven, such as nursing, information technology, tourism, and computer sciences. Similarly, girls had begun to choose careers that were traditionally popular with the boys, such as mining, land surveying, doctor, civil engineering, prison warden, journalism, electrical engineering and mechanical engineering.

The strategy of the Department of Education in encouraging girls to participate in science projects seems to be working, even though it is at this stage concentrated at urban schools.

The study indicated that the Department of Education needed to put more effort into career guidance in rural schools where the learners were not exposed to diverse career choices and information about technology. Learners in the urban areas seemed to be more familiar with career choices in general than the rural learners.

Very few males and females intended to choose any of the many apprenticeships available in the trades, with the result that foreign people often take up the trades after following an apprenticeship. This is one of the important factors that cause xenophobia. Many of the sectors of the economy in this country are experiencing crisis.

The result is that most of the economy of the country is controlled by people who have not chosen their professions with the necessary foresight and are therefore square pegs in round holes. This poses a serious challenge to the government and also to the Department of Education; they have to make learners more aware of the shortage of skills in the different sectors and prepare them to make wise career choices.

As a recommendation, it is suggested that the government put more effort into assisting learners with career choices, particularly in the Black rural areas since Blacks form a **two-third** majority in the country. Career guidance will also stimulate and increase awareness of the professional and semi-professional careers that are available in the workplace.

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CHAPTER ONE
ORIENTATION OF THE STUDY

1.1 INTRODUCTION

Goal-oriented learners always go to school having career choices in mind, knowing what they want to do when they finish schooling (Theron, 1997). One believes that the ones career choice becomes an inspiration to work hard toward the target. For most individuals, work is a defining aspect of life; indeed our happiness and fulfillment can change in accordance with how well we are able to control the cause of our lives and manage the effects of our work on our family and personal life. However, many people enter their careers with a lack of insight and purpose, drifting to and from jobs and lamenting unwise career choices (Greenhause & Collanan, 1994).

Individuals at any age need some form of education about future careers and must have an appropriate decision-making framework in order to achieve personal success and satisfaction. This type of education can be started early in life with contact at the correct cognitive level for the child's age. Young children, for example, seem to favour careers that they are familiar with and often want to become doctors, nurses, teachers or police officers (Isaacson,1985:207-298). These are careers that are visible within their communities. At an early age young boys often want to become truck drivers because they associate this occupation with power and control

1.1.1 New world of work

According to an article by Prof. John Simpson, Head of the Department of Educational Planning at Harcourt College, Connecticut (USA), in today's world the relationship between an employer and employee has a short term focus; neither of the parties seems to be highly committed to the wellbeing of the other. Therefore, we increasingly have to take responsibility for managing our own careers and our own lives (www.harcourtcollege.com;Accessed 21June 2010).

Isaacson (1985:207-298) states that when we focus on career counseling, the counselor is also required to be competent in assisting the client to acquire, process and apply information and skills needed in effective career decision-making and subsequent implementation of career plans. Specifically, information includes relevant data about the world of work and all its aspects.

The career counselor who wishes to be most useful to the client, must not only assist in the self-appraisal process, but must also aid the client in understanding the world of work in sufficient detail to enable the counselor and the client to develop an expanded list of occupational alternatives so as to facilitate the best eventual career choice. At a later stage the counselor can help in acquiring and evaluating information about those opportunities in sufficient detail and relevance to the client, so that the list can, ultimately, be narrowed down to the best choice as well as a small number of fallback possibilities.

The counselors' competency in the career area is at least two-fold. First, the counselor must have a fairly thorough general understanding

of the nature of the work, including the occupations of which it consists, how these differ from one another as well as how they are related. He/she must also know how these occupations can be grouped into families or clusters, what common features can be grouped into families or clusters, what skills each particular job requires, what rewards each of them have to offer, and so forth. Secondly, the counselor must be familiar with the sources of information and know the appropriate techniques that can help the client to develop a significant list of suitable occupations so as to able to identify the best options in a specific array.

1.1.2 Sources of information

According to Hatch, Engelkes and Win born (1979:62), understanding and keeping up to date with the nation's industrial and occupational life at both a national and local level is a difficult task. The counselor must be familiar with materials that describe not only the present status of the world of work, but also future trends. Gathering information about present opportunities is much easier then securing information about the future. Because the techniques of predicting long-range trends are so demanding, few counselors undertake specialised types of socio-economics research. The findings of such research, however, are essential to the information service. The counselor has the responsibility to engage in limited research at the local level and to obtain and organise the best materials gathered by other persons and agencies. The counselor must know the sources of current data and must use them in order to give counselees accurate and up-to-date

information in addition to keeping informed of both national and local changes in occupations.

The counselor has the responsibility to make all counselees, whether actual or potential workers, aware of the changing character of the occupational world so that they can adjust to such changes. For information on local opportunities, the counselor must rely on local sources, which often entails self-gathered research. Data regarding national trends, however, are usually readily available, since the federal government as well as various other governmental agencies gather statistic periodically.

1.1.3 The need for helping individuals relate to work

According to Parsons (1990:43), helping individuals develop realistic and satisfying career plans is an important human service. Parsons started his work in Boston over seventy years ago and his attention was focused primarily on disadvantaged orphans and school dropouts. Today, in contrast, there is general acceptance at university level of the need for career counseling. In spite of this wide acknowledgement of the need for expert help in career planning and development, such assistance is sometimes difficult to obtain and less helpful than desired. Parsons (1990) states that personal experience in the world of work undoubtedly exerted a great influence on his view of the needs of vocational guidance, as it was called at that time.

The principles proposed by Parsons (1990) include:

1.   It is better to choose a vocation than merely to 'hunt a job.'

2. No one should choose a vocation without careful, honest self-analysis carried out under competent guidance.

3. The youth should have access to a large survey on the field of vocations, and not simply drop into convenient or accidental positions.

4. Expert advice, or the advice of individuals who have made a careful study of people and of vocations and of the conditions of success, must be better and safer route for young people to follow than the absence of it. Putting it down on paper seems to be a simple matter, but it is one of supreme importance.

The need of youth for assistance in career planning, as recognised by Parsons, has been confirmed by numerous research studies throughout the years. Ginzberg (1971) has endorsed a similar view in the following words:

Everybody is confronted repeatedly with the need to make decisions with respect to education and work. These decisions can be facilitated if people have relevant information about the short and long consequences of alternative choices.

Better decision-making with respect to career development also requires the clarification of goals, the development of plans, and their implementation.

People need help in learning to negotiate complex and changing institutions – the educational system, the Armed Forces, the labour market.

While informal advisers, such as one's peers and especially one's family, help young people to define their goals and initiate them in the ways of the institutions of our society, they frequently do not have important information or objectivity.

Attempts have rarely been made to gauge the economic and psychological costs sustained by both individuals and society as a result of inadequate or in effected career planning. The Association of Counselor Education and Supervisions (1976) has developed a position paper that speaks directly to the point under discussion in the foregoing pages. This document contends that all students and adults should be provided with career guidance opportunities so that they can make informed choices.

1.1.4 Career education

As quoted below, Marland (1971a:34) proposed a course of action that has attracted considerable attention, he said all our efforts as educators must be bent on preparing students either to become properly, usefully employed immediately upon graduating from high school or to go on to further formal education. Anything else is dangerous nonsense. I propose that a universal goal of American education, starting now, be this, that every young person completing our school programme at grade twelve should be ready to enter higher education or to enter useful and rewarding employment.

This proposal promotes the development of the concept of career education, an idea that has grown and spread. No attempt was made to specify restrictively the nature of career education; instead, school systems and state departments of education were encouraged to interpret the concept in terms that met their needs and to create a variety of programmes that reflected those local or state-wide interpretations. Consequently, career education is now – and will continue to be – an evolving concept that includes very diverse programmes. A few months after the above statement was made, Marland (1971 b) explained his position in a speech, with these words,

  What the term 'career education' means to him is basically a point of view, a concept – a concept that says three things: first, that career education will be part of the curriculum for all students, not just some. Secondly, that it will continue throughout a youngster's day in school, from the first grade through senior high and beyond, if he so elects. And thirdly, that every student leaving school will possess the skills necessary to give him a start to make a livelihood for himself and his family, even if he left before completing high school.

With each state developing and following its own definition of career education, one finds considerable variations in emphasis from one definition to another. Obviously, no one can say that this one is right and that one is wrong. But although there is diversity, there is still a good deal of consensus among the various statements. Hoyt (1972: 47) has probably best synthesised the essence of common agreement with the following definition, Career education is the total effort of public

education and the community aimed at helping all individuals to become familiar with the values of a work-orientated society, to integrate these values into their personal value systems, and to implement the values into their lives in such a way that work becomes possible, meaningful, and satisfying to each individual.

The above statement, according to Marland (1971 b), suggests that career education involves all school personnel, including teachers, counselors, administrators, and others – and all aspects of the community, including business, industry government, labour and individuals – in an ongoing cooperative venture that capitalises upon opportunities in and out of school to enhance career development for all people, not just school-age youngsters. In fact, several research projects have explored successfully the viability of delivering career education services to individuals that no longer find themselves in the school setting.

Nevertheless, one can logically expect that the major thrust of career education will continue to be aimed toward the school-age population. In the school setting, career education appears to be recognising and building upon the developmental phases of life. Most programmes therefore focus upon career awareness during the elementary years, providing maximum opportunity for these youngsters to gain a wide range of general information about as many jobs as possible, including what the worker does, the kinds of abilities, interests, and personality required by the job, and the satisfactions and rewards provided by the

work. Learning about jobs is a lifelong process, and all of us often discover some occupation about which we were previously unaware. It is therefore not the intent of career education to concentrate on this activity only in early childhood. Instead, it is intended that a deliberate effort will be made during the early childhood years to widen the range of knowledge, to encourage acquiring understanding of many jobs, and to make that inquiry as productive as possible, while recognising that the activity would continue in succeeding years. The second phase of career education is introduced during the middle or junior high school years and is the major thrust until the early high school years.

During this period, usually called career exploration, the youngsters are helped to relate occupational activities, requirements and rewards to their own characteristics, ambitions, values, and expectations. They seek answers to such questions as the following: Would I like to do what the worker does? Could I do it successfully? Would I finish the rewards satisfactory? Would I like to live a life like the worker lives? During the early high school years, many of the youth move into the third phase: decision-making. For most, this is a gradual process, with specific refinement and focus to come later.

Some career education advocates suggest that students can be helped most if attention is directed towards two broad compacts: the field or area of work as represented by the cluster concept, and the general level of work as reflected by the amount of education required.

In other words, rather than trying to find 'the' job, the students look toward a group of jobs that fit their interests, abilities, values, and so on

and that also require, generally, the educational level they hope and expect to attain. Thus, a desirable goal at this stage might be 'a health occupation requiring a year or two of post-high school vocational training,' or a 'marketing occupation at the bachelor's level,' or 'a construction occupation where a high school diploma is sufficient.' Identification of a specific choice within this framework can be completed as the individual approaches the point where specialised preparation begins.

The next phase, career preparation, may be as brief as part of the final year of high school for the individual expecting to go to work directly, or as long as a decade for those youths contemplating professional careers. Ideally, the secondary school years should prepare each youth for his or her post secondary plans, either entrance into further education at an advanced level or entrance into work.

 Thus the youth whose plan is 'a health occupation requiring a year or two of post-secondary vocational training' would have done the following: (1) identified the occupation and the school where additional training can best be acquired as well as (2) completed all preparatory requirements for the training programme. Furthermore, he or she would have completed a 'back-up' programme enabling entrance into a related occupation at a lower level if the additional anticipated preparation becomes inaccessible.

  According to our understanding, this would mean that high school graduation also includes completion of requirements for immediate admission to an entry-level occupation related to a desired goal.

Logically, the next step after preparation for an occupation is employment. The process of job placement can occur at the end of high school (or before that point for those few individuals who elect to withdraw before graduation) or at a later point when preparation has been completed. Placement programmes in education institutions vary widely; only a few can really claim to have effective plans in operation. Certainly this activity is one that requires extensive cooperation between the educational facility and the appropriate component in the larger community.

An additional step must be incorporated into the career education process if it is to serve all individuals. Perhaps 'advancement' is an appropriate label for this phase, which should provide assistance in developing a path for moving forward in the selected direction. Most entry-level jobs lead to higher-level positions; often there are multiple paths leading to varied opportunities and, to some extent, the earlier phases of awareness, exploration, and decision-making may need to be recycled in the specific situation facing the worker.

Similarly, advancement may depend upon acquisition of additional preparation, perhaps even a later return to the classroom for more formal schooling, and then back to a position of greater responsibilities and opportunity, where the process may start again (Isaacson, 1985).

1.2. **MOTIVATION FOR THE STUDY**

According to the researchers understanding, career choices are important for the development of any country. All the countries in the world need different kinds of people with different skills to manage the various jobs in the country in order to bring about development. Developed countries tend to have many scientists, such as civil engineers, medical doctors, electrical engineers, technicians, computer specialists, actuarial science specialists etc. All these specialised scientists help their countries to have a competitive edge towards development.

Developing countries share the disadvantages of lack of infrastructure and lack of skills to develop the infrastructure. Even though Africa is so rich in mineral wealth, including gold, iron ore, diamonds and platinum, in terms of sustainable development, Africa needs to encourage its learners to increase their ability to benefit from these riches by preparing to do so, which implies learning in mathematics, science and technology. These seem to be the key subjects in developing countries into super nations. In the post apartheid era South Africa established the Denaledi schools, whose main function was to increase the numbers of learners successfully passing mathematics and science in grade twelve. This would in turn increase the number of learners choosing the fields of science and technology at Higher Educational Institutions.

1.2.1. The pilot study

The present study was preceded by a pilot study which investigated career choices of grade seven learners, as part of an honours research paper. Two hundred grade seven learners from five schools in rural areas were given a questionnaire (appendix 1) which sought to determine the learners' attitudes toward science and technology as well as their career choices. An overwhelming majority of 89% of the learners indicated that they would like to be scientists, while 96% thought that everyone should learn about science and technology. The narrow career choices that these learners indicated were extremely disturbing because one would expect that the learners would choose the different careers in an equal distributed manner. The males restricted their choice to six careers, namely teachers, engineers, police, medical doctors, technicians and scientists. The learners did not seem to know that there are different fields of engineering and they also could not specify what kind of scientist they wanted to be. Teaching and policing are among the careers that are commonly found in African communities.

The females selected from a wider range of careers compared to the males but their choices were also limited to careers that are most prevalent in Black communities. Career choices made by females included nursing, medical doctors, engineers, social workers, climatologists, computer technicians, computer programming, policewomen, farmers and teachers. It was also encouraging to see

females choosing career fields such as engineering and climatology, which have formerly been dominated by white males.

Having covered grade seven in the pilot study, the researcher specifically wanted to explore career choices made by Black grade twelve learners. The objective of this study is therefore to determine whether these learners had acquired a wider knowledge of available careers now that they had reached their final school year and whether they would opt for more non-traditional careers, unlike their counterparts in grade seven.

1.3 PROBLEM STATEMENT

The limited career choices made by Black grade seven learners may be attributed to the fact that many careers were not accessible to Black people during the apartheid era. This may explain why they still tend to opt for careers traditionally available to Blacks. This tendency has resulted in a shortage of practitioners in especially the fields of finance, medicine, science and technology. Primary school learners were found to have very little information about the vast array of careers that they could choose from in the democratic dispensation of South Africa.

An issue of major concern is whether grade twelve learners have better information about careers than their primary school counterparts. The researcher felt that, at this level, grade twelve learners should be aware of the wide variety of careers that are open to them so that they can exercise an informed choice and take our country forward in terms of

developing various skills to occupy crucial positions in our economy. The research therefore investigated what career choices are made by Black grade twelve learners.

1.4 AIM OF THE STUDY

The study aimed to explore the career choices of Black grade twelve learners in order to ascertain if their choices were diverse to include careers that were not accessible to Black people during the apartheid era. The study acknowledged the importance for Black learners to choose careers in the fields of sciences, finance and technology because these areas are crucial to the sustainable development of the country.

1.4.1. The research questions of the study were as follows:

- What new career choices, previously inaccessible to Black learners, are learners choosing in grade twelve?
- What differences are there between the career choices of males and females at grade twelve?
- Which career choices are unfamiliar to most Black grade twelve learners?.

1.4.2. Hypothesis

Black learners mostly choose traditional careers in spite of the fact that all careers are now open to all the nationalities resident in South Africa.

1.5. The Significance of the study

The significance of the study lay in its   to ascertain as to what kind of career choices Black grade twelve learners in KwaZulu-Natal   chose and the careers that were either avoided or unknown. Further, the study's significance also lay in its attempt to ascertain as to whether or not there or were any differences between the career choices of male versus female learners. Thus, it was envisaged that the findings would benefit the government of South Africa to bridge the gap so that there will be no career choices known to be for the Whites and career choices known to be for the Blacks as it used to be before democracy.

 In this regard, it was envisaged that, as a result of the findings of this study, government would come up with some programmes to enable Black grade twelve learners to choose careers that Black learners were avoided to study them, so that all the South African citizens have skills that are evenly distributed all over the sectors of the economy of the country in order to address the issue of sustainable development because if there are concentrated in few sectors it will be difficult for South Africa to improve on sustainable development.

1.6. OPERATIONAL DEFINITIONS

For the sake of clarity, it is essential to define certain relevant concepts used in this study. The definitions appear below:

1.6.1 Career choice

Career choice can be defined in the subjective context of the individual's preferences, aspirations, orientations, images and intentions, as well as in the objective context of economic conditions and sociological factors, such as family and education (Theron, 1997:28).

1.6.2 Career management

Career management is an ongoing process, whereby the employee:

i)   obtains self-knowledge (interest, values, abilities, personality, career anchors);

ii)   obtains knowledge of the working environment (job and organization);

iii)   develops career goals;

iv)   develops a strategy, and

v)   obtains feedback on the effectiveness of the strategy and the relevance of the goals (Greenhause & Callahan, 1994)

1.6.3 Career education

This is a term used to describe the broadening of the typical educational curriculum by the infusion of career development, preparation, and placement at the appropriate levels of the educational system (Houghton & Mifflin, 1973:27).

1.6.4 Career information

Career information is the collection, dissemination and interpretation of information needed by an individual in career development (Norris, Hatch, Engelkes & Inborn, 1979).

1.6.5 Career guidance

Career guidance is a broad term used by many to describe most of the activities of career education other than the preparation component. It can also refer to the elements of career information, counseling and placement (Wrens, Career Guidance, 1972: 26).

1.6.6 Career planning

Career planning is a term usually used to describe the activities one engages in during the process of career development (Schreuder, 1997:15).

1.6.7 Work

The term 'work' constitutes the effort toward the attainment of definite goals of achievement, product or services. It may be the labour tasks or duties that afford the individual an accustomed means of livelihood, or it may be the expenditure of effort toward a goal of intrinsic value (Cambridge, Mass: M.T.T.I. Pres, 1973).

1.6.8 Occupation

Occupation is gainfully employed activity and is made up of a group of similar jobs that may be found from situation to situation, Gilbert (1973).

1.6.9 Sustainable development

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs, according to the Brundland Commission (Treurnicht, 1998: 31). It is a multidimensional process involving changes in social structures, popular attitudes and national institutions. It also implies that economic growth and employment have to be accelerated, that inequality must be reduced and that poverty must be eradicated (World Bank, 1997:4).

1.7. PLAN OF STUDY

CHAPTER ONE:

This chapter gives a brief introduction to careers and aspects that influence careers. The chapter includes the motivation for the study, the problem statement of the study, its aims and questions that the study hopes to find answers for.

CHAPTER TWO:

This chapter consists of a literature survey which unpacks the concept of career choice as an aspect of sustainable development. Career choices by grade twelve learners are considered to be a sustainable development issue because we need to have a cadre of well-qualified people in different careers to run the diverse industries in the country.

Issues of equity in the choices of careers are underscored because the development of women in education is one of the millennium goals of development. Various issues that affect careers are discussed in this chapter, which is concluded with a summary.

CHAPTER THREE

This chapter outlines the methodology used to collect the data and describes the questionnaires that were used to collect the data. It also lists the various schools that participated in the study and gives the location of the schools and the numbers of female and male learners. The limitations of the study are also stated in chapter three.

CHAPTER FOUR

Chapter four presents results in the form of tables and descriptive statistics showing career choices of learners. The data is presented and analysed and a summary of the results is provided at the end of the chapter.

CHAPTER FIVE

Chapter five presents the summary of the study and gives recommendations on how Black learners can be encouraged to take part in the new science, finance and technological careers that are now available to them in the new democratic South Africa.

1.8. CONCLUSION

The problem to be investigated was introduced and described in this chapter. Key issues such as sustainable development, career choices of Black learners in the Republic of South Africa and the research methodology used in the study were highlighted. Finally, this chapter outlined the organisation of the study, structured in accordance with the chapters.

CHAPTER TWO
LITERATURE REVIEW

2. INTRODUCTION

This chapter highlights the importance of career choice as an aspect of *sustainable development.* This is a complex concept with diverse interpretations and has important implications for the *protection of the environment* and the promotion of *economic and social* development of a country. For the economic, environmental and social development of a country, you need well qualified practitioners to advance the processes of development. It is for this reason that choice of career is regarded as a sustainable development issue. For example, if we do not train enough environmental education practitioners we will continue to destroy the planet until the world is totally unfriendly to living things. In the same way, the economy of the country depends on the sustainability of the services that support it, such as accurate bookkeeping, to mention one 'old fashioned' example. Yet we often hear that there are few Black accountants in South Africa; this complaint is heard despite various programmes that have been put in place to try and correct the situation. It is in this regard that improved career choices can help to ensure that motivated people are employed to fill the gap.

2.1 SUSTAINABLE DEVELOPMENT ISSUES

Sustainable development is defined, according to the Brundtland report, as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987: 43). Sustainable development implies that the next generation should inherit a stock of wealth no less than that inherited by the present generation. Rapetto (1986:15) defines sustainable development as a developmental strategy that manages all assets, natural and human resources, as well as financial and physical assets, for increasing long-term wealth and wellbeing. Sustainable development as a goal rejects policies and practices that support current living standards by depleting the productive base. Therefore the issue of sustainable development clearly emphasises inter-generational equity.

The World Commission on Environment and Development (1987) identified two issues as fundamental to sustainable development. The first issue was the concept of needs in particular, which are the essential needs of the poor to which overriding priority school be given. The second issue was the idea of limitations imposed by the state of technology and social organisations on the capacity of the environment to meet present and future needs. In essence therefore, two ideas are fundamental to sustainable development. The first was equity in both infra-organisational to intergenerational terms.

2.2 From separate development to sustainable development

South Africa presents a paradox on the other hand it is a relatively large country with a low population density, abundant natural resources and a well

developed infrastructure in comparison with the rest of Africa. The bad news is that South Africa has one of the most pronounced income inequalities of any country in the world.(The World Commission on Environment 1987). It also has an information about serious overcrowding in the townships, squatter camps and environmentally degraded homelands; the economy remains heavily dependent on the export of non-renewable minerals with little beneficiation Rapetto (1986:46). It is a country with a rich racial and cultural mix that was cruelly divided by institutionalised racial segregation.

> Raising the challenge of sustainable development can help the South African policy debate go forward in new directions. At the heart of the problem is how best to move from separate development to sustainable development. The most pressing sustainable development challenge facing the country is improving the livelihood of the poorest. The black population was unfairly disadvantaged as a result of the apartheid system. During apartheid, Blacks did not get access to certain careers were reserved for White people. The country, now having attained democracy, is still struggling to increase the participation of formerly marginalized groups, especially in the fields of science and technology. Life expectancy at birth is 58 years for Blacks and 70 years for Whites. Inequality was built into the system through unequal expenditure on health, education and all social services (Apple , 1990).

This was made worse by the expropriation of rights for Blacks to use and benefit from the natural resource base of the country and discrimination against any free and full black participation in the modernising economy, either as entrepreneurs with access to credit and services, or as skilled workers competing on a par with white colleagues.

Only by developing the human resource base can the natural resource base be better managed by understanding and choosing career choices accordingly. In particular, those who live in poverty are at present given limited alternative options to continuing to contribute to environmental degradation in rural and urban areas. The deforestation activities by people with no access to electricity are contributing to climate change. Ensuring sustainable management of the resource base would help to meet people's basic needs. This requires two priorities for action. The first is human resource capacity building and the second is institutional strengthening and reorientation. Both require redressing the extreme inequalities of the old system through empowerment and affirmative action. In turn, this requires a new development management approach for the country.

This study firstly considered what sustainable development meant and then addresses the relationship between economic development and sustainable development. The argument is that the two are not equivalent; other ways have to be found to ensure that economic development contributes to sustainable development and that sustainable approaches contribute to a more secure economic development. White economic development carries the potential to help meet the basic needs of the population, this is by no means inevitable.

 The trickle-down effect in economic growth is notoriously slow to register a significant impact, which suggests that the idea of growth first, at all costs, must be questioned and that a more sophisticated strategy should be developed to help meet people's basic needs and to

address the heightened expectations that the new democratic dispensation brought to a highly mobilised, vocal and angry Black populace. This has to occur within the constraints of good housekeeping if it is to be sustainable.

The Forum for the Future Annual Report (2000) states that it is necessary to avoid heavy internal government deficits as well as external balance of payment deficits as these rapidly leads to a burgeoning debt, and eventually to structural adjustment programmes being imposed, which seriously hurt the poor, as has occurred elsewhere in the continent. The following exploration of the challenge of scale in development management raises the issue of who should do what at which level. People need to examine what development management for sustainable livelihood strategies might mean, its vital role in the peace process and for the specific needs of the urban and rural areas. The central challenge is one of human resource capacity building and institutional strengthening for the management of sustainable development. This will include diversifying the choice of careers among the black population, who form the majority in South Africa.

2.3. Diverse perspectives of sustainable development

It was stated earlier that sustainable development is a diverse issue. We can consider the values, choices and the politics embedded in different explanations of sustainable development given by different environmental education experts. These explanations give us a broader

view of sustainable development but also highlight how complex the concept is.

Daly (1996), for instance, suggests that sustainable development is development without growth beyond the environmental carrying capacity, where development means qualitative improvement and growth means quantitative increase. He advocates an approach to sustainability that strives for sufficient per capita wealth – efficiently maintained for a maximum number of people that can be sustained under these conditions. Daly highlights issues of equity, which are very important in South Africa where a vast number of career choices were denied to people of colour for a long time. This meant that there were a vast number of resources that Black people could not access, thus being denied social justice. With the advent of democracy in 1994, the present government is trying to bridge the imbalances and strives towards sustainable development.

Rist (1999) describes sustainability as the ability of an ecosystem to continue levels of production borne by the system over a long period of time. This, however, can only happen if human beings on our planet act like stewards in protecting the environment and limiting the activities which pollute the environment, and if they control their consumption-oriented lifestyles. According to Gadotti (2009), the concept of sustainable development has an excellent educational component, namely the preservation of the environment, which depends on ecological awareness. Ecological awareness, in turn, depends on

education which will steer some of the learners towards careers that are pro-environment and in favor of conservation of natural resources.

The changing nature of the concept 'career' is described by Hall and Mirvis (1995), who believe that with all the changes that are taking place in organisations, the primary implication for employment is that careers have to become *protean*. The term 'protean' is taken from the name of the Greek god Proteus, who is said to have been able to change shape at will (Hall, 1976; Hall & Mirvis, 1995). Hall and Mirvis (1995) further define the protean career as one that utilises all of a person's varied experiences in education, training, work in several organisations, and changes in occupation fields. The protean career, as we see it in our days, is shaped more by the individual than by the organisation and may be redirected, from time to time, to meet the needs of the person. The protean career is said to value freedom and growth, and is characterised by mobility.

Long ago, young people obtained a tertiary education and qualified themselves for the occupation of their choice; they secured a job with the organisation of their choice and remained in the job for their entire career life. Finding a job was also not difficult as there were fewer people with tertiary qualifications. According to Schreuder and Theron (1997), an organisation was often chosen because of the security it offered and the prospects of a long-term career. These days, jobs are characterised by a fixed term that may not be renewable. There is more emphasis on delivery; if you cannot perform to the satisfaction of your seniors, you can easily lose your job. Because of the increase in of the

populations of the world and the number of people with tertiary qualifications there are now fewer job opportunities and less job security.

2.3.1. WHY SUSTAINABLE DEVELOPMENT?

According to the Brundtland Commission (Treurnicht, 1998:31) and the (World Bank,1997:4) the concept 'sustainable development' has gained widespread international acceptance for two basic reasons. First, there was a genuine concern about the escalating costs of existing development paths, not only with regard to serious environmental effects but also concerning a seeming inability to properly address the needs of the poorest in society. There is now a general agreement, in theory at least, of the need to make development sustainable in the long term, rather than simply reaping the benefit today at the expense of storing up longer term problems, such as declining soil fertility and decreasing agricultural yields. Other long-term problems include overcrowded cities with overloaded or no services, inadequate and polluted water resources, a huge pool of permanently unemployed people, and so on. These are some of the issues that have recently affected many municipalities in South Africa. Lack of clean water has resulted in outbreaks of cholera, killing both the young and the elderly.

The second reason for the widespread acceptance of sustainable development is that it can mean all things to all people. Everyone can agree to the idea while pursuing their own interpretation of what it means and how to achieve it. This refers to the complexity of the

concept and the different interpretations given. What is important is that whatever is done to the environment must lead toward protecting it from degradation.

The World Commission on Environment and Development (1987) produced the most definitive and authoritative study of sustainable development, arguing that many of the problems of resources depletion and environmental stress arise precisely from the disparities in economic and political power. The commission offered the following set of objects for sustainable development policies:

- reviving growth
- changing the quality of growth
- meeting essential needs for jobs, food, energy, water and sanitation
- ensuring a sustainable level of population
- conserving and enhancing the resource basic
- re-orientating technology and managing risks
- merging environment and economics in decision making

The Johannesburg Millennium Summit (September, 2001) also came up with some general principles which should inform the process of South Africa to develop her policy frameworks further, in particular concerning development management, emphasising the need to adopt an anticipatory, cross-sectional approach to decision making. The summit also proposed six strategic directions:

- transforming attitudes and practices

- building a global alliance

- environmental education communities

- integrating environment and development

- stabilising resource demand and population

- conserving variety of life

Transforming attitudes and practices goes to the heart of the public and development management initiative being undertaken in the country. It involves responding to people's own priorities of their needs and helping groups to articulate their needs and to debate the constraints and opportunities. Special heed must be paid to the most disadvantaged, whose voice is weakest, namely women, the unemployed, the elderly and the poorest of the poor. Improving awareness of the links between environment and development is necessary in all walks of life.

Building global alliances refers to the need for international cooperation between governments and people to ensure a common global climate. Closer to home it encourages a more regional approach, especially to such issues as shared river basin management, coastal and marine resources and common policies towards toxic waste dumping. Empowering communities emphasises the need for communities to be able to mobilise their own resources and command a level of outside support. Integrating environment and development has not been a habit

in the past. If development goes ahead with disregard for the environment, a heavy price will have to be paid time and again.

2.3.2. CAREER PLANNING

According to http:llen.wilpedia.org/w.k.career, the word 'career' covers all types of employment, ranging from semi-skilled to skilled and from semi-professional to professional. The term 'career' has often been restricted to suggest an employment commitment to a single trade skill, profession or business form for the entire working life of a person. In these modern times, however, career refers to changes or modifications in employment during the foreseeable future. Hall (1976, as well as R,G, & Z (2007) describe four distinct meanings assigned to the concept career, namely:

- Career as advancement
- Career as profession
- Career as a lifelong sequence of role-related work experiences
- Career as a lifelong sequence of role-related experiences
-

2.3.3. Vocational choices

The phenomenal development in the fields of pure and applied science and the increase in mechanisation of industry in our time, has led to a very high degree of vocational differentiation and specialisation. The growth and emergence of new careers has been spectacular.

In an effort to keep pace with the growing demands required to equip the child for cultural, social and economic life and at the same time to provide the type of education that is conducive to the child's development into adulthood, the school curriculum has been extended to such a degree that the child has to choose from a wide variety of subjects and in a later stage from a still greater variety of vocations. Because the child often has no knowledge of his own ability for a certain subject field of study or vocation, he has to depend upon adults, such as parents and teachers, for the necessary guidance.

The choice of a vocation is of the utmost importance to learners completing their high school career. Although this choice normally coincides with school leaving, the new system of differentiated education provides the choice of certain subjects in standard 6 and 7 which lead to a specific field of study to be pursued from standard 8 (grade 10). Also during or at the end of standard 6 or 7 when subject choice and grouping of learners into streams are discussed with parents, a field of study that stands in direct connection with the possibilities of a later choice of vocation is indicated. It is however particularly at the end of their high school career that youth should have clarity in connection with future career as some learners enter employment directly, while the majority pursues their studies on a higher level or in some other training programmes leading to the eventual choice of vocation.

Vocational satisfaction mainly depends upon the interest a person shows in a certain direction and the way in which his personality and training complies with the demands made by the occupation. In most cases young people have not yet acquired this specific knowledge and the greatest majority of them do not realise how necessary it is to have sufficient information in connection with fields of study or vocations. It is therefore necessary for them to be guided to the realisation both of the necessity of having a sound knowledge and of the importance of making the right choices, because of the fact that a choice of vocation based on superficial or incorrect information is doomed to fail. It is also important that young people be encouraged to collect as much information as possible, not only pertaining to one career in which they are interested in, but that they have information on a variety of occupations that can be compared before making a decision. According to Fedrickson (1982) and Careers Guide Manpower (2000), the following information is important in connection with vocations:

- the service it renders to the community;
- the nature and conditions of work;
- training requirements;
- the demands made on the worker by the occupation, for example physical characteristics, mental power or abilities and other particular personality characteristics which many determine whether a person can perform adequately in the job;

- opportunities for promotion and remuneration, because most people may like the job and find that the remuneration is not satisfactory;

- Conditions of service, advantages and disadvantages of the occupation.

According to Jacobs (1991) it is necessary that young people be guided into knowing themselves. They should have a realistic picture of themselves, including their own abilities, aptitudes, interests, and personality. They should also be aware not only of their good potential but also of their shortcomings. Only at this stage can young people be guided to make intelligent choices and to accept the responsibility thereof. Besides the parents, who are primarily responsible for all the needs of their children, the school also plays an important part where it comes to choosing a career. The school can expose learners to various kinds of careers and explain the demands of each career, but the learners and the parents are the ones who are entitled to make a final decision.

Most education departments provide for an extensive network of auxiliary programmes that promote the physical and spiritual welfare of the school-going population (Watts, 2004). According to Guichard (2005), guidance counselors work together as a team with education psychologists, sociopedagogues, remedial teachers, speech therapists and medically trained officers to try and solve all problems which have a disturbing influence on the proper development of the youth and which the school personnel cannot cope with adequately. Most

education departments also have school clinics in major centres. In most centre's there are child guidance clinics affiliated with local universities or under protection of recognised welfare organisations that undertake testing and interviews in cases of youth requiring vocational guidance. The regional officers of the Department of Manpower-utilisation undertake job placement for youth. Test programmes and interviews are arranged by qualified counselors in the branch officers in the cities and important towns. In this way, youth who have not made up their minds as to a future vocation after leaving school are given professional guidance before they are placed in jobs.

2.3.4   Sustainable Development
The three principles of sustainable development

In its early years, the meaning of the term 'sustainable development' was ambiguous, leading to a proliferation of definition. Only recently has the WCED definition emerged as the dominant one. Discussions have also coalesced around the three principles that ground sustainable development: environmental integrity, economic prosperity, and social equity (Elkington,1998; WCED,1987). Each of these principles represent a necessary, but not sufficiently, condition; if any one of the principles is not supported, economic development will not be sustainable. These principle are described below.

Environmental integrity

The environmental integrity principle ensures that human activities do not erode the earth's land, a and water resources. Ecosystems are assumed to have limited regenerative capabilities and caring capacity (IISD,1995). Population growth, combined with excessive consumption, escalating population, and depletion of natural resources, threatens environmental integrity (Pearce Markandya,and, and Barbier,1989; WCED,1987). Human activities can have a significant negative impact on the natural environment including, but not limited to ,decreased biodiversity, ozone depletion, accumulation of greenhouse gases, waste management, deforestation, toxic spills (Doering et al., 2002). If the natural environment is compromised, then the basic and necessary resources for human life, such as air, water, and food, will also be compromised.

Social equity

The social equity principle ensures that all members of the society have equal access to resources and opportunities. Central to the definition of sustainable development is the recognition that 'needs', present and future, must be met (WCED,1987). Human needs not only include basic needs such as food, clothing, and shelter, but also include a good quality of life, such as health care, education, political freedom (IUCN, UNEP, and WWF, 1996; UNCED, 1992;United Kingdom Secretaries Of the State for the Environment, 1994). The WCED (1987:43) document state that sustainability is the universal goal and that even the narrow notion of physical sustainability implies a concern for social equity between generation, a concern that must

logically be extended to equity within each generation. This implies that future generations, indigenous peoples, the disenfrachanised are entitled to the same level of resources as more privileged people in developed countries (Gladwin, Kennelly, & Krause,1995).

Economic prosperity

Finally, the economic prosperity principle promotes a reasonable quality of life through the productive capacity of organization and individuals in society (Holliday, Schmidheiny, and Watts,2002). Economic prosperity involves the creation and distribution of goods and services that will help to raised the standard of living around the world. Open, competitive, internationally markets that encourage innovation, efficiency, and wealth creation are fundamentally aspects of sustainable development (WBCSD, 2002). Economic prosperity is tied intrinsically to the principle of social equity and environmental integrity (Schmidheiny, 1992b; WCED, 1987)

For example, people looking to meet basic needs such as food, clothing, and shelter will use natural resources to satisfy those immediate needs at the cost of the long term health of the natural environment. Millions of hectares of forests are destroyed every year to provide fuel for cooking and heating, to provide fertile land for agriculture and to provide wood for housing (WECD, 1987). A society that does not create economic prosperity will ultimately compromise its own health and well-being (WBCSD, 2002). Without equally access to income related benefits, conflict between peoples

will erupt in order to achieve some   perceived sense of equity (WCED, 1987).

2.3.5 Parallel Worlds, Partial Connections? Gender   and Participatory   Development

The parallels between efforts to promote participation and gender equality in development have a number of dimensions. Contemporary GAD emerged as an alternative to liberal women in development (WID). These largely sought to give women a place within existing structures and paradigms, rather than confront a seek to transformed the gendered in equities more directly (Jackson & Pearson, 1998; Razavi & Miller, 1995). 'Participatory development' has generally, like WID, pursued the liberal   project of inserting participatory practices of various kinds into conventional development activities, mostly taking the shape of enlistment in consultation and implementation (& Uphoff, 1980; Cornwall, 2000a). Alternative approaches from 'peoples self development' (Rahman, 1995) to a more recent focus on peoples participation in development as 'makers and shapers 'rather than users and choosers of development initiatives affecting their lives (Cornwall & Gaventa 2001), focus, like GAD, rather more on issues of power, voice, regency.

Commonalities and differences

Both WID and participatory development are about inclusion, buy on terms and within the parameters set by revealing constructions of development assistance. Both lent and continue to lend themselves to congruence with neoliberal development agendas in which fundamentally questions of structure intersubjective and personally power remain un addressed. GAD and participation in development contain elements that recuperates more radical alternative development discourses of the 1970s and the explicit concern with power, voice and rights (Freire, 1972). They also connect with, and provide the prospect of realizing in a mere sustained way, some of the lessons that have been learned over the course of three decades of participation in development and feminist organization (Cornwall, 2000a; Jackson & Pearson, 19980. Feminist and participatory research methodologist share the epistemologically, ethically and politically principles (Maguire,1987). From a common concern with the relationship between the knower and the known, to a recognition of the ways in which claims to objectivity and truth can render some people knowledge and experience , ignorance, both value and ethic of commitment to social transformation (Gaventa, 1993; Mies,1983). These shared principles are mirrored by common experiences in the development domain's White notes, for both participation and gender: "what begin as a political issue is translated into a technical problem which the development enterprise can accommodate with burial a falter in its stride" (Gaventa, 1996,p.7). Just as an efficiency arguments were used to make a case for increasing women's access to development institutions, so participatory development gained currency through argument about the cost-effectiveness of engaging

"primary stakeholders" in development project s. In addition, just as main streaming gender led to dilution of its politically dimension (Goetz, 1994), so too has the rapid spread of participatory approaches led to their use by powerful internationally institutions to lend their prescriptions authenticity and legitimacy, sub magic the more radically dimensions' of participatory practice (Cornwall, 2002; Tandon, 2002).

2.3.6. From appraisal to action: Gender in Participatory Planning

Just as the nominal inclusion of women appears to satisfy "gender" goals, so too the use of participatory methods in planning processes may be tokenistic rather than transformative. Participation in planning ranges from more sustained and deliberative processes of engagement to one off performances: all the way down Arnsteins (1971) ladder of participation tokenism to delegated control. PRA is a wild used participatory technology that has become particularly popular as a tool of planning over the last decade, either through use to identify priorities or to construct community action plans. PRA is often conflicted with "doing participation". The aim of this section is to suggest that participatory planning can be reduced to the use of PRA. Rather, my focus on PRA here is both to enable me to further explore some of the tensions raised earlier I this paper and to engaged with it as an approach that has gained such remarkable popularity in development work. PRA would seem to promise a lot for work on gender. Its principle emphasis being enabling unheard voices to be head. PRA processes can create spaces where a new rules for engagement provide new opportunities for voice and influence (Chambers, 1997; Jonhs & Speech, 2001). But a focus on gender is not an implicitly in the methodology, nor is it often an implicit element of

PRA practice (Cornwall, 1998; Crawley, 1998; Guijt & Kaul Shah,1998). Where gender been paid attention, it is often through deliberate emphasis on difference (Welbourn, 1991) or through other tools alongside PRA (Guijt, 1994; Humble,1998; Kindon, 1998). The examples given below show that PRA can be used in processes that provide opportunities for poor women to empower themselves. Yet, used by facilitators who lack a concern with process, power and difference, it can exacerbate exclusion and cement existing relations of inequality.

2.3.7. Missing Women, Masking Dissent

Mosses (1995) insightful account of the earlier project planning stages of the Kribhco Indo-British Rainfed Farming Project (KRIBP) in India is one of the earliest, and best known, critiques of PRA from a gender perspective. Yet while it is often read as generated critiques of PRA, it is actually rather more situated. The KRIBP project aimed to identify women's perspective on farming systems, strengthen their roles in natural resources management and "open new opportunities for women's involvement in household and community decision making and resource control" (Mosses, 1995,p.4). "PRAs" were used to do so. These activities consistent of three days in villages using visual techniques and interviews with groups, before a plenary village meeting. As public events, some argues, these "PRAs" did not permit sufficient articulation of dissent to allow marginal women a voice. Women participation was minimal. The public location of activities made if difficult for women to attend, let alone participant. The decision to time these one of the events to capture seasonal migrants reflected a concern with maximizing mail participation with little regard for women's availability. By

effectively creating public performances, the team failed to recognize the extent to which the powerful might take the control of the public arena, and the implications for the inclusion of other voices. Concluding that the public "PRAs" he witnessed "tend to emphasis formal knowledge and activities, and reinforce the invisibility of omens roles" (Mosses, 1995, p.21) contend that, "women's agreement with projections of community or household interest will be tacitly assumed, and the notion of distinctive perspective overlooked" (Mosses, 1995, p.21).Mosses subsequently critique of what appear to be inherent limitations of PRA illustrates a rather different point.PRA methods in themselves are largely gender neutral. Powerful examples exist of PRA methods being used to facilitate gender awareness, such as Bilges (1998) use of daily time routines to able men to explore and challenge their prejudices. Yet their appealing simplicity allows PRA methods to slot easily into the repertoire of technical methods field workers already use. As Goetz notes of GAD.

The research for simple formulae and tools to integrate gender sensitive data and practices to project and policies implies faith that technique can override forms of prejudice embedded in organizational cognitive systems work cultures (1997, p.4).

2.3.8. Management aspect of career

 In this sense, experiences of career are experiences of movement into management, and of changes in work from doing the job to the managing And administration of others who are doing the job.This was particularly the case for the organisational careers where hierarchies of posts and positions have constituted promotion structures and where individuals have developed

linear careers through such structures. Increasingly this conception is also relevant to other professional careers. Many professionals have in any case always worked in large scale organisations and for those professionals working in smaller group practices, issues of advancement and progress are increasingly influencing career choices and decisions. Management has come to represent career progress for large numbers of professional workers.

Although the proportion of women rising to higher positions have risen since the 1970s, these women tend to hold lower level posts and are concentrated in positions with less authority and responsibility than men. One explanation lies in the nature of management itself. Power (1988) describes how the job of manager has been defined as masculine with men seeing themselves and being seen by promotion panels as more suited for such positions than women. Power explains the influence of gender stereotyping, which suggests that men are more appropriate for a hierarchical leadership role than women and find the intense competition for such positions more conducive. Other researchers found that management's discretion was the final arbiter and that women received fewer awards than men. In a similar way the Equal Opportunities Commission has argued that even the most 'objective' systems of merit pay and appraisal are likely to apply more readily to jobs performed by men (Industrial Relations Services, 1992). Performance assessments of women's occupations often focused on subjective assessments of attitude and behavioral characteristics and were the product of casual judgments by line managers (Clement, 1992b). For these reasons the operational management of merit schemes cannot be seen as gender neutral. In a similar way the operational management of promotion procedures is also designed to reward only one un-dimensional model of

career. There is an assumption in appraisers' and assessors' minds of a linear career track.

2.4. Organization change: career, profession and class

It is critically important to recognise the changes currently under way in work organizations and in professions, which will inevitably affect the content of which careers are constructed. The concepts of 'enterprise culture', 'budgetary devolution' and internal markets have come to represent such changes. Most management theorists would agree that the better managers are androgynous. It is also argued that the androgynous status is better fitted to organisational needs which increasingly require managers who are adaptable and multifunctional. The new manager will therefore have to decide to be more task-orientated or people- orientated, depending on an evaluation of subordinate needs and situational factors, such as the firm's general economic circumstances and the organization's climate. In general, then, it seems that we need to change and to broaden our goals, as there is more to life than obsession with promotion. Getting ahead has resulted in a particular conception of management which is aggressive, independent, competitive, ambitious, unemotional and self confident. This in turn has resulted in a mono-dimensional interpretation of careers.

By changing our conception of management to include an ability to express feelings and form empathic relations with others, as well as being able to be firm and decisive when situations require strong leadership, we might also begin to change our understanding of the 'good' manager as well as of the successful career. When individuals achieve a balance in their lives between

career, family and other interest, then career as well as management might prove to be a work goal worth pursuing. Organisations will also benefit substantially from the extension of management and career opportunities to a larger pool of managerial and administrative talent.

2.4.1.The culture of career and promotion

It is also necessary to recognize that the culture associated with career and promotion success is not gender neutral. The concepts of merit and promotion are interpreted and operationalised according to a particular model of career success. Merit payments are awarded to those making distinctive, active contributions to the goals of the work group. But active contributions are differently rated by organisational representatives. Thus, holding particular offices, contributing to professional or organisational development, having specific expertise and needing to be retained are the characteristics worthy of merit awards. Other kinds of characteristics, such as stability, long service, organisational loyalty and dong a good job do not in themselves deserve merit. Women can earn such awards in the same way as men if they accept the appropriateness of the merit-earning characteristics and are willing to work towards them. However, several reports have demonstrated that merit schemes generally favor men.

The trade union representing top civil servants (Association of First Division Civil Servants) has claimed that statistics for the first four years of a new performance-related pay scheme had shown clear gender bias (Whitfield, 1991). There was a consistent pattern of men, on the same grade and with the same seniority, being paid more than women. The decision to award

performance-related pay was based on an annual review. People scoring high enough marks were eligible for extra cash but of the same grade. An explanation for the competition between the genders can often be found in the nature of organisations (Hearn, 1989) and in the general patriarchal system which diverts and resists attempts to introduce change in organizational structures (Marshall, 1984; Cockburn, 1991).

Gender differences in management styles have been a preoccupation of much research. Following a review of research into managerial behaviour, Powell (1988: 165) states that few differences related to sex have been found and that these tended to cancel each other out. For Powell the only significant difference between managerial men and women was the environment in which they operated, and this had to do with sex imbalances that contributed to stereotypical preconceptions and cultural dilemmas for managerial women. However, at the British Psychological Society conference held in January 1992, delegates were still arguing that there were fundamental differences in the qualities which men and women brought to management (Clement, 1992a, 1992b). As a result, it is claimed that women experienced a contradiction between their formal managerial authority and their feminine identities which militated against the practice of authority.

It is certainly the case that beliefs about gender differences have a great impact on careers in organisations. Promotion in the career depends on organizational representatives, managers, assessors and appraises evaluating the suitability of candidates for merit awards and promotion. Managers evaluate the performance of their subordinates' promotion decisions, and these decisions are based on evaluations of past performance, future

potential and comparisons between candidates for promotion. Promotion is inevitably competitive since in hierarchical pyramidal career structures there are only a modest number of middle ranking managerial positions and very few at the top. In such a structure other's evaluations are based on beliefs about what an individual is like and gender continues to influence such evaluations. Stereotypical beliefs, such as that women are either more expensive or alternatively too aggressive while men are more task-orientated and better natural leaders, have a marked impact on promotion decisions about managerial posts. Beliefs about gender differences, however lacking in research evidences, has a continuing effect on promotion prospects for a career.

Proposals and recommendations for equalizing career opportunities in management have been forthcoming and are largely determined by where the explanation for gender imbalance is seen to lie. Thus, those who see the problem as being discrimination in organisations have proposed stronger equal opportunities legislation, the setting of recruitment and promotion targets. They have also proposed that qualifications and qualities required for promotion posts should be specified, thereby enabling women as well as men to acquire them.

2.5   CHANGE IN MANAGEMENT AND ORGANISATION

For about thirty years, until the late 1980s, there had been a tremendous growth in managerial posts and positions in industrial, commercial and service organisations as well as in professional and small firm practices. This expansion was accompanied by other changes such as the increased use

of microelectronic equipment in factories, laboratories and offices. A wide variety of work tasks in production, marketing, sales, administration and research and development is now managed by means of reliance on computerized systems and processes. This expansion in numbers of managerial posts has also been accompanied by an increased diversification of management positions. Davidson and Cooper (1992) report that since 1976 more people occupy management service positions, while fewer hold general management jobs. In organizations there is now a growing need for technical specialists, but these posts do not include the management of other staff. Many of these so called 'managers' will be employed in professional consultancy roles that require high levels of very specialised and often organizationally specific technical knowledge. However, these posts will seldom include generalist managerial and administrative responsibility for other employees. The late 1980s saw a change in pattern of expansion. In organisations the upward pressure of the numbers of staff seeking promotion and of heightened expectations for further career development led to the creation of 'surplus' layers of management. The recession in Britain and growing international competition exerted even greater pressure on employees and organisations to contain costs. As a result, whole layers of (particularly) junior and middle management disappeared, while organisations become leaner, flatter systems with more professional specialists, but fewer middle and junior managers. The 'manager' might not be retained, but such individuals managed a tasks or a specialist area, not people.

Ways of working were also changing and alongside those changes were marked alternations in employment practices. Ways of working were

moving towards more projects that require temporary teams. Individuals would move from one project to another on completion or having completed their contribution. Once more, in certain projects and in some teams particular individuals would act as leaders, but this would not necessary continue with the move to a different project where they would operate as team members.

Employment practices also changed and this had dramatic consequences for the experience and expectation of careers. Some permanent employment was replaced by an increase in short term posts or limited term contracts. Also, some services previously provided in-house were contracted out and market testing enabled private companies to bid for work previously managed within the organisation. In addition, the creation of departmental budgetary units within organisations enabled profit and loss making sections to be readily identified. The consequences with regard to the experience of and expectations for careers have been profound. The traditional organisational career had been predictable and the make-up of variations were based on the following models: graduate education, joining a company, structured graduate training, a first position and subsequent promotion to graduate training, a first position and subsequent promotion to a managerial post on the organisational structure with large numbers of middle manager positions, which enabled rational career planning. All this has been changed, however, and future careers might need to be very differently developed. If individuals perform well, they may receive additional pay in the form of merit awards or income supplements, but promotion in the traditional sense of the word to the next rung on the promotion ladder, will not automatically follow. More professionals who have worked for part of their careers in

organisations will become freelance consultants, selling the specialised skills they have developed to firms which need to contract out their knowledge and expertise for particular projects. Change is then a prominent feature of organisations and their systems of management. The experiences of male and female scientists and engineers and their careers histories illustrate some of these aspects of change and also demonstrate some of the features of stability and reproduction which are prominent in organisational life.

2.5.1. Gender and career in the context of organisational change

This section examines how gender, career, management and organisation interact in the context of change to produce as well as to reproduce old forms of occupational segregation and gender differences in careers. Two aspects will be considered. Both have been outlined and illustrated by Savage (1992a). First, his claim is that although women have moved into professional and 'skilled' jobs in the middle class, they have rarely been able to achieve management positions in the sense of having significant authority in the organisation. Secondly, he claims that the restructuring of organisations themselves, and in particular the rationalisation of management in organisations, affects the career opportunities of women and men in organisations in different ways. The work of Savage (1992a) and others emphasise the importance of organisational structures in gender inequality. Savage also emphasises the significance of organisations in class formation, especially in middle-class formation, where gender is closely linked to class inequalities. He uses data on gender and social mobility as well as data from his own study of banking (1992b) in order to demonstrate the gender differences in careers. Women who enter the profession, develop

careers and achieve promotions in the organisation are mostly restricted to do so within subordinate professional niches. Nowadays, women have moved into positions of high expertise, but not yet of high authority. They have rarely been able to secure positions of managerial authority within the hierarchical structures of organisational management in respect of the women scientist and engineers. Female scientists and engineers seem to achieve promotions in their organisations and some of them have even attained managerial posts.

It is thus increasingly possible for women to develop within hierarchical, linear, career structures and to achieve promotion to middle-management and even higher positions of authority in their organisations.

We need to ask, however, what does 'management' mean in these organisation contexts? Are management posts proliferating? Is management diversifying? Is management being significantly changed? As organisations update, downsize and de-layer and management is restructured, should the notion of management itself be rendered problematic in order to enable us to better understand the real significance of management (and gender) in the organisation?

Organisational change has also responded to heightened awareness about gender differences in careers and in promotions. Some organisations have promoted a few women to take up 'token positions' in various departments and levels within the hierarchy. For example, a large scale survey of British Institute Manager members has found that women were following careers paths that differed from that of men. They were educated to a higher level

and were occupying more specialist positions at every level of the managerial hierarchy. Cockburn (1991) analysed recent changes in four organisations, namely in the private sector, the retail trade, a government department and a locally elected council, and has noted the gender consequence of such changes. She evaluated the part played by men in resisting moves to incorporate gender equality in organisational arrangements and noted that when women entered management positions (in the example of a certain retail store), the 'real' power had moved elsewhere, namely to regional centers' and headquarters and into the hands of computer programmers or marketing, sales and advertising managers and company accountants, who were male.

Savage (1992b) has cataloged the major restructuring of management in banking organisations and has listed the changes that were made. These include a diversification away from branch retailing, the streaming of customer groups, the sub-division of management into 'lending' and operations, and the development of regional headquarters to deal with the diversified financial services. It also included control of management by means of standardised criteria and annual objectives and a consequent reduction of autonomy and discretion. The effect of such change has been a great increase in the number of junior categories of management. A further consequence has been the separation of 'expertise' from 'authority'. Most of these lower-level 'managerial' positions demand high expertise and specialist knowledge but they involve little effective organisational authority within the massively expanded managerial hierarchy.

The growth of women in banking management has been heralded as a success story. It is claimed that women in banking are moving into managerial positions of authority and power. Savage (1992b: 124) disputes this, however, and claims that the growth of women in banking management is linked to the changing structure of management itself. Women managers are recruited into positions which demand expertise and skill but they have no effective organisational power; their positions do not involve line management. Further, he claims that where women are employed as managers, they are in units where there are many (often female) managers. In such managerial positions, women remain subordinate to senior, predominantly male managers.

2.5.2. Careers, class and profession

As noted in a previous section, researchers such as Save and Wits (1992) have been concerned to emphasise the significance of organisations in class formation as well as in explanations of continuing gender inequalities. The linking of analysis of gender and class has been emphasised particularly in middle-class formation, development and change.

Social commentators, including journalists, have attempted to assess the political consequences as well as the social effects of such changes. In general, such changes have been summed up as an increase in middle-class anxieties and a growing culture of insecurity (Cohen, 1993). In the enterprise culture, the future role for the middle classes is seen for them to become freelance consultants, selling their skills to whichever organisation wants to contract their services. Social scientists have on the whole been slower to

respond with such drastic generalisations and are more reluctant to rush to conclusions about comprehensive changes. Models of analysis have changed, however, with lifestyle and consumption superseding the employment and occupation categories in class theory. In recent analyses, the 'new middle class' is a prominent category (e.g. Crompton, 1993) with distinctive and privileged lifestyles, cultural and symbolic capital an educational and social opportunities, rather than a privileged employment or professional grouping. It is now very difficult, if not impossible, for writers and researchers on class to ignore the gender dimensions of class reproduction and change, although such an omission had been commonplace in analyses until the 1980s. The parts played by women in the family-related aspects of class as well as in the workplaces and in organisations and professions have become an essential component of class theory. Researchers have begun to demonstrate, sometimes using historical data, how gender segregation within organisations and professions has enabled men to progress in their careers while women continued to do the backstage work. There is then a forming division of labour in work in organisations, which mirrors that in other professions and occupations and is more generally part of the process of middle-class change and development.

The change in organisations themselves plays an important part in this reformulation. Savage (1992a) has noted that skills-based assets are more intrinsically focused on than gender, as successful women and men both depend on their specific skills. Men also tend to make use of organisation assets since promotion processes are important vehicles of male power (Hean, 1989). When women use their skill assets in their careers they become professional specialists according to the organisation's change

requirements. But their very specialisation then renders them ill-equipped and ill-experienced for positions of general management in the organisation. Organisations have had to respond, but positions of power and authority in the organisation are still predominantly retained for men.

Bureaucracy and organisation result in different outcomes for men's and women's careers, even among women and men doing similar work. It is important to emphasise, however, that there is considerable variation among women and among men. The postmodernist shift in social thought (Crompton, 1993) requires the incorporation of cultural as well as structural dimensions and a consideration of the diversity and variety of experiences alongside generalised conceptions of stability and change. Thus women can, and some do, develop bureaucratic promotional careers in organisations; some, but not all, succeed in doing so while also raising children, and they successfully calculate promotion moves and succeed in progressing upwards in linear-career hierarchies. Even for women such as these, however, their gender often remains critical in their experiences of career. They become women managers or even women directors and their gender continues to be important and implicit in the ways they are perceived and particularly assessed by others. Thus, cultural modes and patterns continue to reinforce traditional aspects of organisational structures as well as generating diversities in experience which might feature in organisational change.

Finally, it is necessary to include some of the wider aspects of profession alongside class and organisation as contexts in which corporate science engineering careers are constructed. These are visible in the macro level processes of professional competition that operate within and between

organisations and professions at both national levels and increasingly at international levels. Abbott's work on a system model of professions, which emphasises profession, interrelations and competition over jurisdictions, was considered. Such competition brought the professions into conflict with each other and also made their histories interdependent (Abott, 1988:19). The experiences of the scientists and engineers in this study make it clear that it is not only control of work that brings the professions into competition and conflict, but also competition over careers. This is particularly prevalent in professional careers constructed in organisations where inter-professional careers, division of labour and legally protected market shelter (Fried son, 1983; 1994) are replaced by an inter-organisational and more pragmatic division of tasks and responsibilities.

2.6. A basic framework for life-designing interventions

Interventions based on a life-designing and building model needed to endorse all the preceding presuppositions about people and their work lives: contextual possibilities, dynamic process, on-linear progression, multiple realities, and personal patterns. Thinking from these five presuppositions, we have crafted contextualized model based on the epistemology of social constructionist, particularly recognizing that (a) an individual's knowledge and identity are the product of social cognitive process taking place in context of interactions between people and groups as well as negotiation between them (Gasper, 1999), and (b) the meaning an individual lives to reality is co-constructed in social, historical and cultural context through the discourse with which we form our relationships (Young & Collinin, 2004).The life design counseling framework implements the theories of self-

constructing (Guichard, 2005) and career construction (Savickas, 2005) that describe vocational behavior and its development. Thus the framework is constructed to belief-long, holistic, contextual, and preventive.

Life-long

Life in knowledge societies moves fluidly trajectories that can no longer be predicted. Each life has become even more of an individual process, still influenced by environmental factors yet constructed to a large extent by individuals. However, self-construction is conditional upon the availability of adequate skills and knowledge. It is exactly at this point that lifelong career guidance support starts to play a role. A support system for life designing and building must do more than just help acquire skills to deal with current changes and developmental issues. It should also help them to determine "how" (the needed method), and "who" (the person or specialist that can give the support), "where" (the environment in which it should take place),and "when" (the best moment for the intervention) these skills and knowledge may acquired.

Holistic

Along with lifelong development comes the issue of a holistic approach to designing a life. This means that, although the vocational aspects related to the work and student roles are at the center of attention, important life roles such as family members, citizen, and hobbyist should be taken into account (Super, 1990). people involved in designing their lives should be encouraged to consider simultaneously all salient life-roles as they engage in career

construction. Thus, life-design counseling includes career construction yet goes beyond its in attending to self-construction through all roles, because for more people work may not be the salient role.

Contextual

From social constructionist perspective of life designing, the importance of the environment should be stressed. Even more ,the environments from the past and the present, the interaction of the person with these environments, and the way the environments were observed and interpreted by the individual need to be incorporated. The person should be encourage to explore the life theaters in which the deferent roles maybe performed and use the results of this exploration in the self construction process. From this viewpoint life-designing intervention should be inclusive. All roles and environment relevant to the person should become part of the intervention that constructs career stories and build lives.

Preventive

Vocational guidance can no longer confine itself to intervening at times and making predictions or proposing suggestions o the basis of present stock taking. It should also include a markedly preventive role. It is necessary to act on settings, looking for early preventive alliances and collaborations. In the framework of life design counseling this means taking an interest in peoples future much earlier than when they have to face the difficulties of transitions, so that their actual choice opportunities can be increased with special attention devoted to at-risk situations. The effectiveness of

vocational guidance could be measured by its ability to produce significant changes in the "conclusion" of the life stories of many individuals (Soresi, Nota, Ferrari, & Solberg, 2008) by fostering adaptability, narratability, activity, and intentionality.

2.7. Training practitioners for life-designing

Vocational guidance should be seen as a "discipline of change" and counselors as agents rather than professionals that deals mainly with diagnosis, or with more or less accurate predictions. In [planning training activities for counselors who wish to deliver life-designing and building interventions, the aim would be to realize the same type of interaction that, in our option, career counselors should have with their future clients. Emphasis would be placed on (a) future counselors active participation during their training, (b) reduction of the gap so often existing between the world of research and that of training and application, (c) ensuring that graduates model what they will advocate ,and (d) preparing counselors for collaborative projects.

Active participation

We are convinced that passive reception does not guarantee significant learning. Thus training time should be devoted to exercises, group work, and practice. It could be useful to set up some situations for service learning (Roschelle, Turpin,& Elias, 2000) where students are placed in real-world settings which can be arranged to address life-designing themes (Savin-

Baden, 2000). Presenting well-structured, real-life, complex problems will strengthen the knowledge and skills learned in courses.

Research-practice gap

To close the gap existing between the world of research and that of training and application, the training should keep to the following plan: (a) presentation of the crucial points from current scientific literature about the life-designing model, methods ,and materials; (b) demonstration of life-designing interventions so that students participate in observational learning; (c) carefully evaluated homework assignments that require students to apply the theory and rehearse its techniques; (d) systematic analysis of results of student practical, service learning, and internship outcomes; and (e) competency assessment as a graduation requirement.

Models

The training should aim to have the counselors themselves show clear identity and strong adaptability. At the first level, counselors should emerge from training as proactive, self-determined professionals with high level of self-efficacy for performing their professional duties. These characteristics may be attained through rigorous training and supervision. At the second level, they themselves must 'model' narrating their stories and actualizing their identities through activities that have meaning and mattering. These characteristics should be monitored over time to check whether they indeed help counselors adjust to the changing reality in which they live, the same as

their clients. One critical professional behavior that counselors should master and model is the willingness and ability to collaborate.

Collaboration

Because of the multifaceted nature of the problems presented by clients, life-designing interventions need a variety of collaborations, multidisciplinary views, involvement of different professionals and services. The interconnectedness between all the life-roles as mentioned above lead to the observation that vocational guidance as part of life designing and building cannot be separated from other types of guidance. All specialties of guidance and counseling should be considered together as part of one large support project for individuals who are designing and building their lives. Emphasizing a holistic lifelong model of the individual and how the different identity frames and forms are interwoven creates a platform on which all those who engage in the broad field of guidance could meet on an equal footing with their colloquies.

2.8 CONCLUSION

In organisations, most professional jurisdictional competitions are competitions about career. Competition over control of work in the workplace, over control of new technology or scientific development or of professional rivals within organizations can be perceived as competitions about promotion, increased authority status and income in the organisations. New areas of career competition are also developing (this time between

women and men and within families) in addition to those within the organisations themselves. In the career competition between women and men in organisations, women have been at a disadvantage in respect of the cultural, structural action dimensions of careers. However, there are an increasing number of partnerships where both partners are in the same or very similar professional fields. Traditionally women have supported their men in seeking promotion. This might not continues, however, if women, like their partners, see themselves as serious competition in the race for careers. In this way career needs to be included in theoretical models and explanations alongside class, profession and gender in the analysis of culture, structure and action dimensions of organisations.

CHAPTER THREE
METHODOLOGY

3.1 INTRODUCTION

This dissertation explored career choices made by Black learners in grade twelve in KwaZulu-Natal. Grade twelve learners are in their last year of schooling before they move to study at a tertiary level for various careers. Previous research done in grade seven, according to Dlamini (2002), showed that learners in rural areas choose traditional careers. Career choices for males as well as females were restricted for Black people during the apartheid era and males usually took up menangerial positions, working with their hands. When they chose professions, they tended to become teachers, engineers, policemen, medical doctors, technicians, or, to a lesser extent, scientists.

What is clear is that the learners were not aware of the variety of career choices available out there. The researcher wanted to find out whether the picture improved by the time Black learners completed grade twelve. Watts (2009), writing in the magazine entitled 'Educator', explained that under the apartheid regime career guidance was limited to white schools. Very little had been done with regard to career guidance among the Black learners in rural areas, even under the democratic dispensation.

The researcher views career choices of Black learners as an important issue that needs to be improved drastically and which should be listed under the sustainable issues that require regular attention in order to ensure successful development of the country. Choice of career is extremely important for Black learners because they form the majority of the school population in South Africa. If Black learners' choices of careers are limited, the country will not have enough qualified personnel to run the various sectors of the economy successfully.

3.2   RESEARCH DESIGN:QUANTITATIVE RESEARCH

The researcher in this study used a quantitative research design. In social sciences, quantitative research refers to the systematic empirical investigation of qualitative properties and phenomena and their relationships, en.wikipedia.org/wiki/quantitativeresearch .

Quantitative research design involves choosing subject, data collection techniques e.g. questionnaires, observations or interviews, procedures for gathering the data, and procedures for implementing treatment, James (2006). Relies heavily on numbers in reporting results, sampling, and providing estimates of instrument reliability and validity. The numbers are usually accompanied by unrecognized strange words and even strange symbols and are manipulated by something called statistics (Poham, 1981, p.66).

3.2.1. Descriptive statistics

The researcher in this study used a descriptive statistics. Descriptive statistics form set of numbers/observations into indices that describe/characterize the data. Descriptive statistics (sometimes referred to as summary statistics) are thus used to summarize, organize, and reduce large numbers of observations. Usually, the reduction results in a few numbers derived from mathematical formulas to represent all observations in each group of interests. Some other reasons for descriptive   was that the area to be investigated was too big, shortage of money, shortage of papers to draft a large number of questionnaires, distance between schools and big number of learners.

3.2.2. Population and sample

The research design chosen was a *field survey.* A field survey typically relies on a questionnaire, distributed to a sample of people selected from a large population (Moorhead & Griffin, 1995). The selected population consisted of 119 grade twelve learners from Denaledi schools who attended the University of Zululand Winter School. By virtue of coming from Denaledi Schools, it meant that all the learners were doing science subjects. Denaledi is the structure set by the government to assist grade twelve learners to improve their results in science and also to capacitate educators to improve on their teaching methods.

The majority of the schools are, however, located in poor areas with poor infrastructure. The number of schools involved made the sample of learners

involved in the study representative of the population of Black grade twelve learners of KwaZulu-Natal.

3.2.4. Instrumentation

The method followed in data gathering, was simply to hand out questionnaires to the grade twelve learners and requested them to fill in and submit them to the researcher. As stated before, the learners came from thirty-four schools in different parts of KwaZulu-Natal; some of them came from rural schools and others from urban schools, for the purpose of ethical issues the names of the schools cannot be disclosed.

The questionnaire supplied to learners was simple, requiring them to state their gender, their age, confirm that they were in grade twelve and at high school. They were then asked to state their career interests, and to state whether their school was in an urban, semi-urban or rural area. The learners were also asked to state their first, or home, language. For most Black learners, the language of instruction at school is different from that of their home language. Black learners speak indigenous languages (ZULU and XHOSA).

The instrument was very simple but justifiable in that it served its purpose, which was to find out what the career choices of males and females in grade twelve were. It also allowed the researcher to analyse the data with a view of looking at whether the choices of males and females were the same or not and also whether the location of the school in a rural, urban or semi-urban area affected the career choices of the learners. Some of the learners

attended affluent model schools where career guidance is presented much more effectively than in the other schools.

3.2.4. Validity and Reliability of Research Instrument

There are two concepts that are very critical in understanding issues of Measurement in social science research, namely validity and

Reliability (Hysanmen, 1989). All too rarely do questionnaire designers deal consciously with the degree of validity and reliability of their instruments (Cooper,1989). Questionnaires have a very limited purpose. They are often one-time data gathering devices with a very short life cycle, administered to a limited population. There are certain ways to improve both the validity and reliability of questionnaires. Basic to the validity is asking the right questions, phrased in a non-ambiguous way, and to ensure that the items sample a significant aspect of what is intended to be investigation. In this regard, terms should be clearly defined so that they have the same meaning to all respondents (Cohen & Marion, 1989, Cooper,1989). Validity and reliability are especially important in educational research because most of the measurements attempted in this area are obtained directly.

3.2.4. Validity of the above-mentioned instrument

Validity is defined by Van Ransburg, Landman Bodenstein (1994) as an extent to which a measurement instrument satisfies the purpose for which it was constructed. It also refers to the extent to which it correlates with some criterion external to the instrument itself. Validity is that quality of a data-gathering instrument or procedure that enables it to determine what it was

designed to determine. In general term, validity refers to the degree to which an instrument succeeds in measuring what it has set out to measure. Behr (1986:122) regards validity as an indispensable characteristic of measuring devices.

As a result, this means that the validity of a questionnaire indicates how worthwhile a measure is likely to be in a given situation. Validity shows whether the instrument reflects the truth. A valid research instrument is one that has demonstrated that it detects some "real" ability, attitude or prevailing situation that the researcher can identify and characterise (Schnetler,1993:71).

For validity purposes, the researcher submitted the research instruments (Appendix to the supervisor, Dr E.T. Dlamini of the University of Zululand. As an expert in the field of Science Education, she went through the research instrument for this study. She looked at grammar, wording and the structure of the instrument and made comments on the instrument for the attention of the researcher. The researcher attended to the comments and made changes to the instrument. As a Science Education specialist, the supervisor attended to the content of instrument to make sure that it fell in line with the objective of the study. The supervisor, therefore, then ascertained that the contents of the instrument had been adequately covered by the instrument (Imanda & Muyangwa 2006:118,119).

3.2.6. Reliability of Instrument used in this study

Reliability is the consistency of your measurement or the degree to which an instrument measures the same way each time it is used different situation

(www.socialresearchmethods.net/tutorial/colossi/lcolosi2.htm). Reliability refers to the consistency of measurement the extent to which the results are similar over different forms of the same instrument/occasion of data collection (James, 2006). Another way to conceptualise reliability is to determine the extent to which measures are free from error. If an instrument has little error, then it is unreliable (James, 2006). The instruments has managed to produce same results after it has been given to different groups but remain producing the same results which prove its reliability since it has been same understood by both rural and urban learners with the same meaning.

3.3. Procedures for Administration of the Questionnaire

Questionnaires were given to both males and females who were doing grade twelve. All learners were given questionnaires during the first period in the morning whilst they were still fresh and able to think about their future career choices. No learners were allowed to obtain answers from other learners. All of the learners were monitored from the beginning up to the end of the session. All learners were given enough time to answer the questionnaire and to hand it in. The learners had to be given enough time to reflect on what they wanted to do after schooling, and so the exercise was treated as a speed test.

3.3.1 ETHICAL ISSUES IN EDUCATIONAL RESEARCH

MacMillan and Schumacher (2006) state that ethics, in general, deal with beliefs about what is right or wrong, proper or improper, good or bad. The authors state that some of the principles of ethics with regard to research are:

1. The primary investigator of a study is responsible for the ethical standards to which the study adheres. In this study the learners have a right to privacy.

2. The investigator should inform the subjects of all aspects of the research that might influence willingness to participate and answer all inquiries of subjects on failures that may have adverse effects or consequences. The nature of the study was explained to the learners.

3. The investigator should be as open and honest with the subjects as possible, hence the need for the researcher to explain to the learners the nature of this study.

4. Subjects must be protected from physical and mental discomfort, harm and danger. If any of these risks is possible, the researcher must inform the subjects of these risks. There were no risks in this study.

5. Information obtained from the subjects must be held confidential. None of the information supplied in the study will identify learners and the school. For research conducted through

an institution such as a university   or   school system, approval for conducting the research should be obtained from the institution before any data is collected. A researcher has to think about the impact of the research on the participants.

Even before the research was done, the researcher asked for permission from the Acting Director responsible for running the Winter School at the University of Zululand. It was explained to learners why it was necessary to explore the kinds of careers that they chose. In short, it was explained that this would assist to ensure that informed decisions were taken with regard to career education in Black schools, as well as determine whether or not career education was effective. It was explained that the learners' informed consent was necessary in this regard.

3.3.2. ANALYSIS OF THE DATA

Descriptive statistics were used in the analyses of data. In particular, the researcher looked at various categories of careers available in South Africa and ascertained whether learners were choosing across the spectrum of careers available to them. The research also paid special attention to a comparison of the choices made by males and females, since in the past some careers were perceived to be suited for males, while others were perceived as careers for females. Such barriers are gradually breaking down and careers are open to all gender.

3.4. CONCLUSION

The researcher hoped that the results of the research would assist the government to encourage career education in Black schools. According to Watts (2009), career guidance must serve to support those groups that had previously been marginalised. He furthermore advises that career guidance can play a role in supporting equal opportunities and promoting social action.

CHAPTER FOUR
PRESENTATION AND ANALYSIS

4.1   INTRODUCTION

The purpose of this study was to investigate a crucial issue that is important to sustainable development in South Africa. This chapter provides an analysis of the career choices supplied by the grade twelve learners from various parts of KwaZulu-Natal that participated in the study. The study specifically examined the career choices made by Black female learners in comparison with those of male learners. The career choices of rural and urban learners were also noted. These comparisons are important in order to assess whether learners in rural areas are also able to gain access to relevant information regarding available careers.

4.2   PRESENTATION OF THE DATA AND ANALYSIS

This is a continuation of research which was done at honours level, where the focus was on the career choices made by Black learners in grade seven. In regard to the Grade seven learners' career choices, it was found that most of the Black learners chose traditional careers and wanted to become nurses, teachers, soldiers and doctors. These are careers that were open to Black people during the apartheid era. The table below shows a summary of career choices of Black children in grade seven, from schools in the rural areas.

4.2.1 Presentation of data for Grade twelve learners

The career choices of the grade twelve learners are expressed as percentages in the table below.

TABLE 4.1 **Career choices of Grade twelve learners**

Career choices	No. of Males	%	No. of Females	%
Information Technology and Tourism	8	13.5	10	16.6
B. Com related careers	0	0	1	1.6
Journalism	0	0	4	6.6
Nursing	11	18.6	2	3.3
Electrical Engineering	1	1.6	5	8.3
Chemical Engineering	4	6.7	3	5
Mechanical II	1	1.6	1	1.6
Prison warden	0	0	4	6.6
Microbiologist	0	0	3	5
Computer Science	1	1.6	13	21.6
Medical Doctor/Medicine	12	20.3	0	0
Land survey	1	1.6	2	3.3
Civil Engineering	2	3.3	2	3.3
Sound Engineering	3	5	0	0
Motor Mechanics	7	11.8	0	0
Health Engineering	4	6.7	0	0
Mining Engineering	2	3.3	10	16.6
Electronics	2	3.3	0	0
TOTAL	**59**		**60**	

The total number of candidates was 119 (59 Males + 60 Females). According to the table of career choices for both males and females, it is clear that most of the females choose scientific careers, which indicates a change in the career choice pattern for females, who previously used to chose non-scientific careers, while males were the

ones who usually chose to follow careers with a scientific basis. This provides proof of the success of the government's strategy of using the Department of Education to encourage females to participate in science projects, even though this strategy is still mainly concentrated at urban schools. This was because most learners from urban schools were choosing from new careers available in the country as compared to learners from rural schools.

The drastic broadening of career choices seen in the table above reflects a change in attitude, even though this study was not based on attitude. Traditionally, career choices were made on the basis of careers for males and separate careers for females. It should be noted that males are now freely opting for careers such as nursing, which was previously seen as a 'female career.' Females are also beginning to choose scientific careers, such as land surveying, civil engineering, the field of medicine, information science, chemical engineering, microbiology and many others. This provides proof that attitudes have changed drastically with regard to career choices. The career choices of females in particular are encouraging as it is clear that they are beginning to diversify their career choices and now include a variety of non-traditional career choices. The diversity of choices may not be enough, but at least a start has been made in looking beyond careers that were traditionally earmarked for Blacks in the apartheid era. The teachers guide issued by the Museum of Science in Chicago (1988) states: Black Achievers in science and technology careers are within reach of anybody who is prepared to work toward achieving his/her goal was to make Black youths aware of science and engineering as desirable

careers; as well to make them aware of how they prepared for such careers.

According to the Career Guide (1981), career choices are categorized into three main parts namely:

PART 1

Part one deals with the professional and semi-professional occupations and technicians. The table below shows most of the career choices available in part 1,which is Professional and Semi-professional careers.

TABLE 4.2   **Professional and semi-professional careers**

Career choices	No. of Males	No. of Females	Total Number of Learners
Physical science and related technicians	3	12	15
Architect, engineer and related occupation	19	12	31
Biological scientist and technician	12	13	25
Medical and related occupations	23	5	28
Computational occupations	1	3	4
Journalism	0	0	0
Social science	0	0	0
Communications occupations	0	0	0
Arts and design occupations	0	0	0
Performing arts occupations	0	0	0
Prison, police, defense service	0	1	1

According to table 4.2 above there is little change in career choices chosen by the females since they are beginning to choose in the field of professional, semi-professional and technicians, which is part one of the career guide (Britz, 1981). Choices that were popular with the males are still popular with them, although females seem to be covering the wide gap that existed previously.

The learners did not choose careers in the following categories:

1.   Journalism

2.   Social sciences

3.   Communication occupations

4.   Arts and design occupations

5.   Performing arts occupations

Some of the careers that the learners did not choose tend to involve the use of the English language and proficiency in writing and talking. It is no secret that many of the learners struggle with the English language and that those from rural schools are rarely literate. Subjects such as art, design and performing arts have disappeared from Black schools. These subjects need a lot of resources and qualified teachers which are not generally found in Black schools and in schools in rural areas.

A few learners chose medical and related occupations, namely 28 out of 119 learners or about 24% of the total number of learners. The population of South Africa is now about 45 million and more than three-quarters (¾) of the population are Black people. A lot of money is spent in importing medical people into the country from other African countries. In other races, for example, in the Indian population, many Indian learners choose to study in the medical field and the learners work hard to get good results that will get them a place in medical school. The government's efforts to recruit doctors from Cuba is helping to increase the number of health practitioners. Why the

Republic of South Africa is not producing adequate number of health practitioners?.

Part two of Career Guide (1981) deals with apprenticeship and trade. The table below shows learners' choices, both males and females, in each career chosen as apprenticeships and in the trades.

TABLE 4.3 **Apprenticeships and trade**

Career choices	No. of Males	No. of Females	Total Number of Learners
Trade in aerospace industry	0	0	0
Metal and engineering trade	4	5	9
Electro technical trade	0	0	0
Motor and related trade	2	1	3
Building trade	1	2	3
Printing trade	0	0	0
Furniture trade	0	0	0
Food trade	1	0	1
Jeweler trade	0	0	0
Sundry trade	0	0	0

Most of the males and females are still not familiar with career choices found in apprenticeships and trade category, which means that South

Africa still has the problem of seeking skilled people from other countries. Examples of career choices which include apprenticeships are trades in the aerospace industry, the electro technical trade, in printing, the furniture trade, jewelry trade and in sundry trades are largely ignored as only 13.4 percent of the learners showed interest in the trades. This indicates that South Africa will take some time to become a developed country and will continue to import skills from other countries.

There is a need to emphasise to Black learners that trades are good jobs, particularly for those who are not academically inclined.

A problem that Black learners seemed to have in choosing apprenticeships and trades was poor work placement opportunities in white firms. In the new era of democracy this has not improved significantly. Many Black people from other countries, especially refugees, do well in the building trade, as car mechanics and as carpenters. These refugees thrive in the communities and this has led to xenophobia. In the past, people learned trades as they grew up and this enabled them find jobs or to provide services, even if they only held primary school qualifications.

PART 3

Part three of the Career Guide (1981) dealt with occupations according to sectors in the economy. Table 4.4 below shows male and female learners responses to careers available in accordance to sectors of the economy.

TABLE 4.4   **Sector of economy**

Career choices	No. of Males	No. of Females	Total Number of Learners
Agriculture, forestry and fishing	0	0	0
Mining	4	0	4
Manufacturing industry	0	0	0
Metal and plastics processing and automobile manufacturing	0	0	0
Wood processing and furniture making	0	0	0
Food and beverages and the tobacco industry	0	0	0
Leather and imitation leather industry	0	0	0
Textile and clothing industry	0	0	0
Chemical industry	4	5	9
Paper manufacturing and printing	0	0	0
Electricity	1	2	3
Building	0	0	0
Building and construction	0	0	0
Financial sector	0	0	0
Transport and communications	0	0	0
Commerce	0	0	0
Service sector	0	0	0
Public sector	0	0	0

As far as the sector of the economy in the career guide (Britz, 1981) out of 119 learners who participated in the study only 9 males and 8 females who showed interest in this category. Therefore, the category of the sectors of the economy requires a lot of attention since there were very few learners chose from it. Out of 119 learners only 9 males and 8 females (at total of 14.28%) showed interest in this sector. However, these are important careers since this is the sector in which most of the economy of the country is concentrated, and it should have been the sector most learners chose in bigger numbers. It could

therefore be expected that more learners would make their choices in this category. Such a shift has to occur in the interest of sustainable development and in order for our country to reach its potential. This means that the Republic of South Africa must increase awareness of these sectors of the economy.

The study also set out to determine the choices made by learners from rural areas as compared to those of urban areas. For this reason the responses of the 25 schools in rural areas were compared to the 10 in the urban areas.

The table below shows the career choices made by learners from rural and urban areas.

TABLE 4.5   **Choices of Grade twelve learners in rural and in urban areas**

Career choices	Rural	Urban	Total Number Of Learners
Information Technology & Tourism	6	12	18
B.Com related careers	0	1	1
Journalism	0	0	0
Nursing	4	11	15
Electrical Engineering	0	3	3
Chemical Engineering	3	6	9
Mechanical II	1	3	4
Prison warden	0	1	1
Microbiologist	1	3	4
Computer Science	1	3	4
Medical Doctor/Medicine	5	20	25
Land surveying	0	2	2
Civil Engineering	0	3	3
Sound Engineering	0	4	4
Motor Mechanics	2	2	3
Health Engineering	2	5	7
Mining Engineering	1	3	4
Electronics	3	9	12

Learners from urban areas were found to be more aware of some of the careers available in this field, whereas the learners from rural areas still choose from fewer careers. Lack of resources in rural areas and lack of career guidance was found to be the reasons for the limited career choices made by rural learners.

Rural learners lack exposure to relevant information, since their dominant choices are primary activities such as farming, forestry, mining and fishing. Learners from urban areas have been exposed to much more information as they have ample exposure to various

activities related to the activities of industries, tertiary institutions and the rendering of a wide range of services that have to do with decision making. This enables them to have a much wider scope when it comes to career choices.

In order for South Africa to become a developed country we need to have our own doctors, technicians, land surveyors and biologists, among others. In order to do so, the government should encourage learners to make such career choices by providing incentives or bursaries and scholarships. More guidance educators need to be trained so as to afford learners from both rural and urban areas the ability to choose wisely from a much wider selection of careers, especially with regard to those careers about which there seems to be a lack of information.

4.3   CONCLUSION

It has been found that it is virtually only the learners from urban areas who are familiar with the career choices found in part one of the Career Guide (1981) (Professional and semi-professional occupations and technicians). Rural learners have not been exposed to these career offerings. The improvement in the numbers of females that now select careers from part one of the guide indicate that they are indeed filling the gap since, out of 98 learners who made choices from this category, 66 were females, while 32 were males. The remaining 21 learners did not choose any of the careers from this category. This is an indication

that the government strategy of encouraging females to make science-related career choices seems to be working.

It was found that very few both males and females chose careers from part two of the career guide (1981) which deals with apprenticeship and trades, and from part three, which deals with Apprentice and Trade occupations. Out of the 119 learners in this study only 17, namely 8 females and 9 males, chose careers from part three. Only 16 learners chose careers from category 2, namely 8 males and 8 females. This means that out of 119 learners, only 43 males and females chose careers that are covered in parts one and two, while 73 learners chose from part one. Therefore 72.3% of the learners chose careers from part one, 13.4% from part two and 14.2% from part three.

The picture that emerges shows that although the grade twelve learners' career choices are more diverse than those of grade seven, which was done in the previous study, there are still many important careers that are not taken by Black learners. This will have an impact on the expanding economy as there is bound to be shortages in certain areas due to a deficit in skills. Very few learners chose apprenticeships and trades as well as certain occupations in some of the important sectors of the economy. This may mean that the country might find itself relying on expatriates to fill positions in certain sectors of the economy.

South Africa must tackle the issue of career choices from a different angle in order to achieve sustainable development. Without the

requisite skills and knowledge in an evenly distributed economy, the country as a whole faces dire problems.

The South African government should distribute resources evenly so that learners from rural areas can enjoy a variety of career choices, since they form the highest percentage of South Africa's population. It is interesting to note that the government Gazette (1997) on Transformation in Higher Education highlights the need to ensure equity of access to education, which must be complemented by a concern for equity of outcomes. In local high schools the syllabus is the same but access to resources is not the same. While learners in urban areas can surf the internet and look for various careers, learners from rural areas have neither access to libraries or to computers. The government still has a huge gap to fill in leveling the playground so that all learners are not only exposed to a variety of careers but are also educationally prepared to enter careers of their choice.

CHAPTER FIVE
DISCUSSION OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 INTRODUCTION

This chapter briefly presents the findings, recommendations and conclusion of the study.

5.2 FINDINGS OF THE STUDY

It was found that grade twelve learners had a better understanding about the career choices available to them and there were few that were still interested in traditional careers. The researcher found that in Grade twelve, 72% of the Black learners were aware of the following career choices: information technology, tourism, accountant, journalist, chemical engineering, mechanical engineering, sound engineering, mining engineering, electronics, prison warden, microbiologist, computer science, medical doctor, nursing, civil engineering, motor mechanic and health. A total of 119 learners from 25 schools took part in the survey.

Careers which Black learners in Grade twelve did not choose were the following: Fashion designing, physiotherapist, dental therapy, biochemistry, consumer science, microbiology, industrial engineering, architect, radiographer, social worker, hydrology, welder, somatology, metallurgical engineering, geologist, paramedic, musician, radio DJ,

was a lack of knowledge that could be ascribed to the fact that they came from rural areas where they were not exposed to these professions and the lack of role models in the form of practitioners in such careers. Also, one can hardly be blamed for wondering how many learners would know what somatology and clinical technology is.

With regard to career choices from the Career Guide (1981), category Part 1 which deals with career choices from professional, semi-professional and technician occupations, the researcher found that only 13% of the learners chose physical science and technician work, and 50% of the learners chose architecture and engineering-related occupations which means that things are becoming better. Only 3% of the learners choose to become biological scientists and 20% technicians. Only 1% of the learners choose journalism; 3% of the learners choose social sciences; 3% choose the communication profession; 3% choose arts and design; 3% choose performing arts and related occupations, and only 1% of the learners choose to work as prison wardens, in the police and in the defense services.

The findings confirmed the thinking that career education is poorly done in Black schools. Choices of careers, even at Grade twelve, seem to be limited by lack of information and lack of role models from which learners can learn.

In the professional and semi-professional careers category, there were no Black learners that intended to take up the following careers:

Economist, management scientist, educationist, occupations in sport or clerical and secretarial occupations. Sport occupations are becoming very important, especially in view of the problem of obesity. Lack of exercise and school sports are causing many young people to suffer from serious diseases like diabetes and high blood pressure. There were also no learners who wanted to enter the field of economy, in spite of the importance of improving the economic base of the country. This can probably also be attributed to the lack of exposure to career choices in this sector, the lack of role models in their communities, especially in rural areas, and lastly the lack of career guidance in Black schools.

With regard to the part of the Career Guide (1981) dealing with career choices available via apprenticeships in the trades, only 3% of the learners choose such careers from the metal and engineering trade, 13% chose the motor and related trade, and 1% choose the food trade. Although Grade twelve learners had chosen from a wider but limited variety of careers, a number of careers were not chosen by the learners. These included the aerospace industry, electromechanical trade, and building trade, printing trade, furniture trade, jeweler trade and sundry trades.

As far as Part 3 of the Career Guide (1981), which deals with occupations according to sectors of the economy is concerned, the researcher found that only 2% of the Black learners choose mining, while 13% choose the chemical industry and only 3% choose electrical engineering and electricity-related occupations.

None of the Black learners choose careers from the following sectors of the economy:

i)   agriculture, forestry and fishing

ii)   manufacturing industry

iii)   metal and plastics processing and automobile manufacture

iv)   wood processing and furniture

v)   food and beverage and tobacco industry

vi)   leather and imitation leather industry

vii)   textile and clothing industry

viii)   paper manufacturing and printing

ix)   building and construction

x)   financial sector

xi)   transport and communications

xii)   commerce

xiii)   service sector and public sector

The study showed, however, that Grade twelve learners had a slightly wider knowledge about careers available in South Africa. There was a slight improvement in the diversity of choices at Grade twelve. Grade twelve career choices also included non-traditional careers which is also important since South Africa is having a problem particularly in the teaching profession in Science in rural schools.

In most of the schools situated in the remote areas there is little information available on career choices due to a lack of resources, including computers and libraries. Institutions situated closer to urban areas have more

information available to learners and the learners at schools closer to these areas are also more exposed to libraries and institutions of higher learning.

Judging from the types of careers that Black learners choose, it is clear that South Africa is bound to encounter problems of shortages in certain careers . The majority of learners seem to prefer professional and semi-professional occupations and the technician category jobs, which will make them job-seekers rather than job-creators. 78% of the learners fall in this category, which makes up the majority of the population of Black people. Most of the people In South Africa who are not employed are coming from the 78% of job seekers in one/two category(professional and semi-professional and technician category).

Only 3% of the learners showed interest in the apprenticeship and trade category, which indicates that there will also be a shortage in this field. Only 13% of the learners choose careers from the category reflecting sectors of the economy. This means that the Republic of South Africa has to improve awareness in this field in order to ensure that career choices are more evenly distributed over the entire field of careers that are available particularly to Black South Africans living in the rural communities where there is lack of most amenities.

5.3. FINDINGS AND RECOMMANDATIONS

- The researcher found that Black Grade twelve learners in rural schools of KwaZulu-Natal seem to have very little information about career choices. Although they sometimes seem to be familiar with some few nontraditional careers, but they often seem to be ignorant about entry requirements to institutions of higher learning and tend to take subjects that are easy to pass and that are not in line with the career that they intend to study at an institution of higher learning.

- Under these circumstances the researcher recommends that career guidance must become one of the examinable subjects in schools, particularly those in the FET band. Most learners do not choose careers properly; as a result they often change from one career to another, a practice which is not financially viable, since South Africa is finding it increasingly difficult to finance education, especially for needy students in higher institutions.

- It is recommended that Mathematics and science-related subjects must be taught by qualified specialists in schools. A number of schools still depend on trial and error methods in teaching these subjects, thereby directly destroying the future of sciences in this country. Such practice causes learners to simply lose interest in science subjects and also change the focus of their career choices to the white-collar jobs, rather than choosing hands-on-experience careers.

- Most schools need to improve their strategic planning since they do not teach science and mathematics properly in grades eight and nine. They tend to concentrate on learners in Grade twelve, when the damage has already been done and learners are no longer interested in science and mathematics.

- Insufficient involvement of the Department of Education in schools with regard to the kind of results or symbols that the learners obtain in each subject at the end of the year as compared to the expectations of the teachers. If the expected targets are not achieved, it is necessary to find the causes and to establish what remedies need to be provided immediately. If the Department fails to attend to this problem, schools in South Africa will fail to produce quality results. The department of Education officials at the district level and wards level must be the qualified one in terms of knowledge not in terms of the years of service. The department of education at all levels could be better if they have people who are qualified in Management and keep abreast with innovations (continuous learning),so that their authority be the reasonable one, since there are policies that needs to be challenged.

- The Department of Education must make sure that an educator is teaching the major subjects at the right grades, from grade eight to Grade twelve, so that learners from the start are equipped with the basic knowledge that is required. This will

also help to improve the results of the learners in the subjects and ensure that the learners gain confidence in learning science-related subjects. An adequate supply of basic teaching materials, such as textbooks, is also crucial if this aim is to be met and the haphazardness that is often found in schools in recruiting unqualified educators for specific subject (s) or not recruiting according to the curriculum needs of the school (s) be minimised.

5.4. CONCLUSION

In order for South Africa to sustain its resources, she must make sure that she keeps a balance between white collar and other jobs and make sure that people are able to be job creators. This means an increase in the range of hands-on experience subjects that are taught at schools. South Africa must harness more people in careers and professions of a professional and semi-professional nature to fill occupations as technicians or apprentices in the trades and other occupations in those sectors of the economy where they are needed. These occupational resources need to be nurtured and increased in order to reduce the high rate of unemployment that prevails in the Republic of South Africa.

The Department of Education together with the schools and the career guidance departments must provide relevant programmes for the guidance and counseling of the learners. Such programmes should concentrate more on the professional, semi-professional and technical sectors, in accordance with the needs of the country's economy.

At present, learners are not exposed adequately to information as far as the abovementioned three categories are concerned. They do not even know what the necessary requirements are, or what subjects they need to take in order to follow these careers, let alone what these jobs entail and what they have to offer.

The bulk of qualified people in this country are those with certificates enabling them to do white collar jobs. Learners begin to know about university and technikon requirements only when they are already have their metric results and for this reason they often choose occupations that are not related to what they are really interested in.

Most principals of schools seemingly fail to read documents issued by the Department of Education as some schools still offer certain streams that are not in line with the entry requirements of tertiary institutions. This has a major impact on career choice as well as on the sustainable development of the resources of the country. If more learners and students are able to make wise career choices, the country will be able to sustain its skilled occupational resources.

Some students tend to choose "easy" careers that are often in over supply. This is often due to lack of information about careers in schools and lack of knowledge on the part of principals, heads of departments and down to ordinary post level (I) educators. However, educators at this post level seldom have the ability to make much

impact on the learners due to the "from top, downwards approach" that is apparent in the majority of school governance.

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ANNEXURES

ANNEXURE A: Letter to the Manager of the Winter School , University of Zululand

ANNEXURE B: Letter of approval from Winter School Manager

ANNEXURE C: Questionnaire