EMPLOYER EXPECTATIONS AND PROSPECTIVE EMPLOYEE REALITIES: A MODEL TO ADDRESS THE NEED FOR EMPLOYABLE SKILLS

BY

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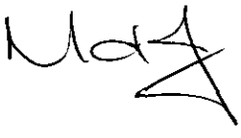

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ABSTRACT

It is a generally recognised fact, that the economy of a country is to a large extent dependent on the level of education of its citizens. A learning nation has the prospect of becoming a winning nation. The more knowledge and skills people possess, the more effective they will be and the better they will be able to think, to be inventive and to be creative. South Africa, however, is hampered in becoming a learning nation due to many learning problems. The harsh reality is, that these learning problems sooner or later end up at the door of employers as productivity problems.

One of the reasons is that students have unrealistic expectations and that there is a lack of employable skills as well as a dearth of communication between Higher Education Institutions and industry. Undoubtedly industry is one of the primary customers of graduates' developed by Higher Education Institutions, but there is a lack of effective communication between the two parties involved.

This study aims to make a contribution towards ensuring that graduates are employable and that they meet the expectations of employers when entering the workplace for the first time. An intensive literature study was undertaken in order to determine the employable skills employers expect from graduates, whereafter a questionnaire was designed and completed by employers who employ graduates from the Faculty of Management Sciences at the Vaal University of Technology.

The results obtained from the questionnaire, clearly indicate that the curricula need to be adapted to the changing demands of industry, in order to provide products that are of world-class standard. The implementation of the employable skills model will attempt to provide a solution to better equip learners who have to participate in a global economy.

OPSOMMING

Dit is 'n algemeen aanvaarde feit dat 'n land se ekonomie tot 'n groot mate deur die opvoedkundige vlak van sy burgers bepaal word. 'n Nasie wat bereid is om opgevoed te word, het die vooruitsig om voorspoedig te wees. Hoe meer kennis en vaardighede mense besit, hoe meer kreatief, kundig en vindingryk sal hul wees. Bogenoemde eienskappe is belangrik ten einde globaal te kan meeding. Die gebrek aan hierdie eienskappe is, dat hierdie leerprobleme en gebrek aan vaardighed voor die deur van die werkgewer te lande kom.

Studente het nie altyd realistiese verwagtinge rakende die arbeidsmark nie en die gebrek aan indiensnemingvaardighede kan toegeskryf word aan die gebrekkige kommunikasie tussen die industrie en Hoër Onderwys instellings. Gebrekkige kommunikasie tussen die twee partye lei daartoe, dat die industrie nie 'n produk ontvang wat aan hul vereistes voldoen nie.

Die doel van hierdie studie, is om 'n bydrae te lewer om 'n produk daar te stel wat aan die industrie se behoeftes sal voldoen. Leerders moet afgerond word, sodat hulle indiensnemingsvaardighede aan die verwagtinge van die werkgewers voldoen wanneer hulle die arbeidsmark vir die eerste keer betree. 'n In diepte-literatuurstudie is onderneem om werkgewers se behoeftes rakende indiensnemingsvaardighede van afgestudeerdes te bepaal. 'n Vraelys is ontwerp wat deur werkgewers, wat afgestudeerdes van die Vaal University of Technology in diens neem, voltooi is.

Resultate verkry, het aangetoon, dat die kurrikula aangepas moet word by die veranderende eise van werkggewers wat wêreldklas personeel in diens wil neem. Die implementering van 'n indiensnemingsvaardighede-model sal leerders beter toerus om aan 'n globale ekonomie deel te neem.

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CHAPTER 1

INTRODUCTION AND SCOPE OF THE STUDY

1.1 INTRODUCTION

It is a generally recognised fact that the economy of a country is to a large extent dependent on the level of education of its citizens. A learning nation has the prospect of becoming a winning nation. The more knowledge and skills people possess, the more effective they will be and the better they will be able to think, to be inventive and to be creative. These are qualities that businesses need in order to compete in national and international markets, and truly internationally competitive businesses are what South Africa needs for a growing economy. South Africa, however, is hampered in becoming a learning nation due to many learning problems. The harsh reality is, that these learning problems sooner or later end up at the door of employers as productivity problems (Du Plessis, Fourie and Hamburg, 1996:75).

The purpose of this study, is to determine whether employers expect graduates to possess certain employable skills and to design a model to address this need.

This first chapter will discuss the background to the study, the problem statement and the value of the research. A clear demarcation of the field of study together with the research methodology that will be used, will be given. Important acronyms and definitions will be given so as to clarify concepts. Lastly, an outline of the thesis will be given.

1.2 BACKGROUND TO THE RESEARCH

One of the reasons students have, is unrealistic expectations and that there is a lack of employable skills, as well as a dearth of communication between institutions of higher education and industry. Gosling (2001:1) states, that there is no doubt that industry is one of the main customers of the skills developed by Higher Education Institutions (HEI's), but there is a lack of effective communication between business, higher education and government in South Africa.

Currently, there is no meeting-ground where business and higher education can begin to influence and impact on one another in constructive ways. As far back as 1994, Buitendacht (1994:33) emphasised, that training institutions and Higher Education Institutions specifically, must not only develop academic skills, but also employable skills. A person will be an effective employer only once his/her employable skills are developed, together with the theoretical knowledge required.

The researcher is of the opinion, that by equipping the students at Higher Education Institutions with the employable skills needed to meet industry's requirements, the students will have more realistic expectations and will be better equipped when entering the labour market. Employers will also have a stronger pool of prospective candidates from which they can select.

In a discussion the researcher held with Wield (2001) and Prinsloo (2001), as representatives of industry, mention was made of the definite need to address certain skills such as communication, personal image,

customer service, time management and work ethics. These employable skills are required not only by students, but also by people who enter the labour market for the first time.

A study conducted by Hamilton-Attwell (1998:79) lists the following industrial/economic problems that have an influence on productivity. The authors state the following:

- These young people just do not work as hard as we do.
- They are not committed to the organisation.
- Employees on the operational levels do not want to work.
- They take less pride in their work than we do.

It is, therefore, important that academics have to balance the demands of employers with broader education aims that will prepare graduates for not just the immediate work-entry years, but for a life-long career with suitable employable skills that will allow them to be adaptable to changing work practices and market skills needed (Davies, Csete and Poon, 1999:191).

Products from all Higher Education Institutions should be flexible enough to be able to adjust to changes and to utilise their academic knowledge in order for them to deal with everyday practical problems. It is, therefore, the duty of Higher Education Institutions to prepare and equip students to cope with the compelling challenges generated by a highly competitive global economy, of which South Africa is an integral part (Hilliard, 1997:37). If taken into account, that students have certain expectations when completing their qualifications and that they believe that it will open

doors and help them to get employed, Higher Education Institutions have to commit themselves to quality education.

By providing evidence for the need of an employable skills development program, the researcher aims to strengthen the support of Higher Education Institutions to implement such a program for students who are lacking these skills in the field of management sciences. The program can be a generic one that can be infused into the different disciplines. Therefore, the aim of this research is to provide a model that makes provision for the implementation of such a program.

Apart from the fact that South Africa is experiencing a high rate of unemployment, Phillips and Crain (1996:21) are of the opinion, that the transition from student of higher education to employee, is often difficult for those who are employed. They are also of the opinion, that much of this transition difficulty can be traced to differences between students' expectations and employment realities. Mittner (1996: 11) supports the above-mentioned view and mentions, that it will not get easier to be appointed in a specific position. As a matter of fact, it will get more difficult, due to the number of people applying and competing for the position. Employers are also of the opinion, that because there are so many graduates, they can select the best.

Marini and Tillman (1998:51) state, that his company seeks for so much more in new graduate applicants. Well-developed and proven skills in teamwork, critical thinking, communication, problem-solving, and interpersonal relations must be part of a graduate's personal scenario. Marini's view proves that employers are looking for world-class employees and that they want value for their money.

Research also confirms that those who are lucky enough to be employed, do not always have realistic expectations. Knippen and Green (1999:202) state, that new employees fail to understand the expectations of the job. During a discussion the researcher had with postgraduate students, 45 out of 47 of the students following a B-Tech Degree in the Human Resource field, indicated that they would be appointed in a managerial position. They argued that they have a degree and that this will meet the criteria of becoming a Human Resource manager. Only two students indicated, that they envisaged being appointed as a Human Resource officer.

An article in Enterprise (Anon., 2001: 10) emphasises the importance of students being provided with employable skills, due to the fact that Further Education and Training (FET) and higher education in South Africa, are characterised by inefficiency and a lack of effectiveness. The current arrangements to provide skills for industry and commerce and to equip individuals to make a full contribution to society, are inadequate.

1.3 PROBLEM STATEMENT

In the study of a life- and job-skills training programme for tertiary students, Raijmakers (1998:5) emphasises the need for skilled labour in the business sector. Raijmakers also indicated, that only individuals who have relevant basic life- and job-skills, would survive and prosper in the workplace.

From the background provided in section 1.2, it appears, that although all of us realise the importance of an employable skills programme, emphasised by research into the importance thereof, and articles

showing the benefit, there are no real employable skills programmes to change employee expectations and to bring it into relationship and in line with employer realities.

To address this issue, the Skills Development Act (SDA) no. 97 of 1998, provides an institutional framework to devise and implement national, sector and workplace strategies to (Olivier, 2001:172). This act states as follows:

- Develop and improve the skills of the South African workforce.
- Integrate those strategies within the National Qualifications framework contemplated in the South African Qualifications Authority Act (SAQA) 1995.
- Provide for learnerships that lead to recognized occupational qualifications.

Du Pré (2000:25) describes a skills programme as *"a programme which is occupationally based and for which a learner may obtain a credit towards a qualification registered on the National Qualifications Framework (NQF), once the skills programme has been successfully completed".* More information on how SAQA and the SDA will enhance education and training in South Africa, will be provided in chapter two.

Globalisation is surely one of the most powerful and pervasive influences on nations, businesses, workplaces, communities and lives (Kanter, 1997:i). The implications of a growing global economy, technological inventions and organisational shifts in the world of work in South Africa, are self-evident. This implies that in order for South Africa to be competitive, companies will have to invest in a worker corps according to

the requirements set by world class companies (Pretorius, 1998:vii). It is, therefore, important to realise that fast-globalise companies are seeking employable skills and knowledge, which are of a world class standard from graduates. The researcher aims to prove, that a student needs certain employable skills to make a transition from being a 'freshman' to becoming a graduate professional.

The problem statement is to develop a model that will address the need for employable skills sought by employers.

1.4 OBJECTIVES OF THE RESEARCH

1.4.1 Primary objective

The primary research objective, is to develop a model that will address the most important employable skills identified by employers, which are not addressed in the curricula at Higher Education Institutions.

1.4.2 Secondary objectives

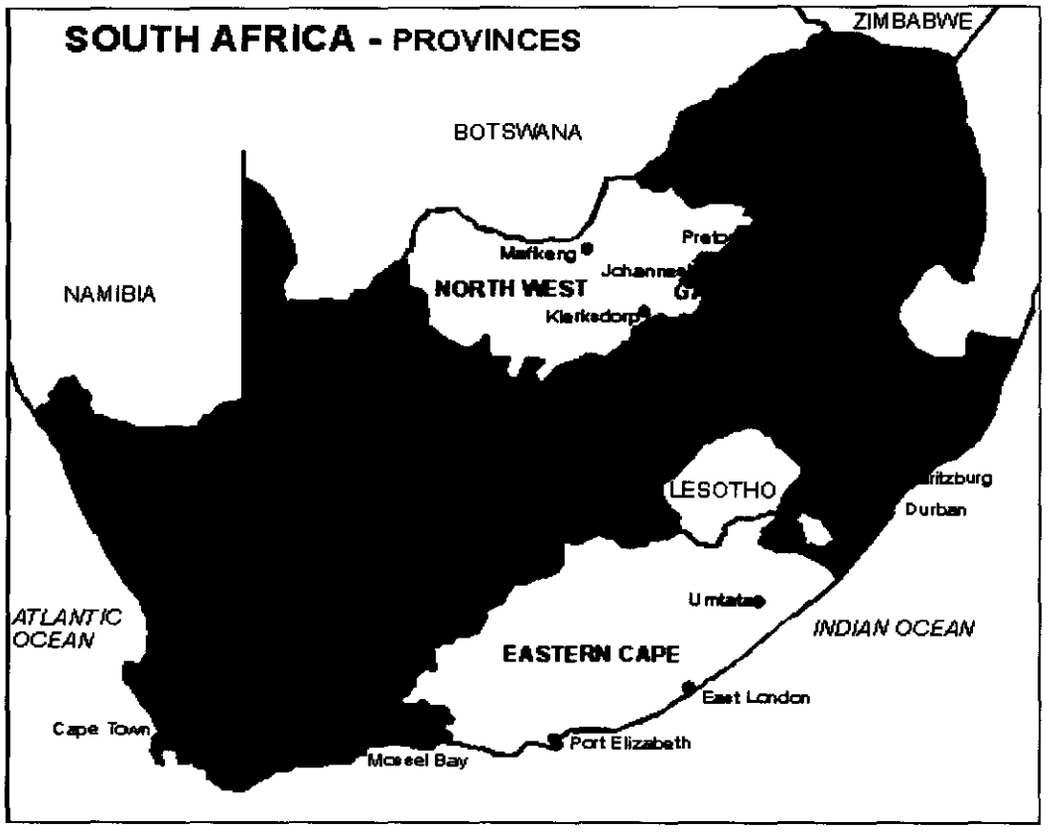
The following secondary objectives were formulated:

- Conducting a literature study regarding the importance of employable skills for prospective employees in a world class milieu.
- Identifying the employable skills required by employers.
- Developing a model to address the most important competencies identified by employers.
- Providing recommendations relating to the design and contents of an employable skills model for ongoing research.

1.5 DEMARCATION OF THE FIELD OF STUDY

For the purpose of this study, the research will be undertaken amongst employers in the Gauteng region, South Africa. As is indicated in section 1.6.2, the target population has to be limited to those employers who employ students that graduated at the Vaal University of Technology in the Faculty of Management Sciences. Gauteng Province is indicated in Figure 1.1. The majority of the students enrolling at the university are from this province. The Vaal University of Technology is situated in the southern part of the province in the town Vanderbijlpark.

Figure 1.1: Map of the study area



1.6 RESEARCH METHODOLOGY

Two methods of research will be used, namely a literature study and empirical research. Each of these will be briefly discussed in the next sections. A detailed discussion on the research methodology, is given in chapter four.

1.6.1 Literature review

Phase one of the research entails a literature study. A literature review with regard to the need for employable skills for students of management sciences at the Vaal University of Technology in South Africa, will be conducted. The literature review will be an in-depth study of what skills employers expect from their employees. This study will be underlined by the global trends and the role higher education has to play. International and national scenarios will be discussed and the researcher will also research the expectations graduates have when they enter industry.

The literature review will make use of relevant books and journals. Journals that will be researched, will mostly be in management and education disciplines. An extensive search of applicable websites on the Internet will be done in order to gather additional information. The nature of the study will allow the researcher to make use of Emerald, MCB and Sabinet as valuable websites. The Harvard method, which is considered the acceptable method of referencing and acknowledgement for writing a thesis in the social sciences, will be used throughout the study. All sources consulted, will be referenced in the thesis and a detailed list is attached after the final chapter. Footnotes will not appear at the bottom of each page; instead, quotations and references are specified directly

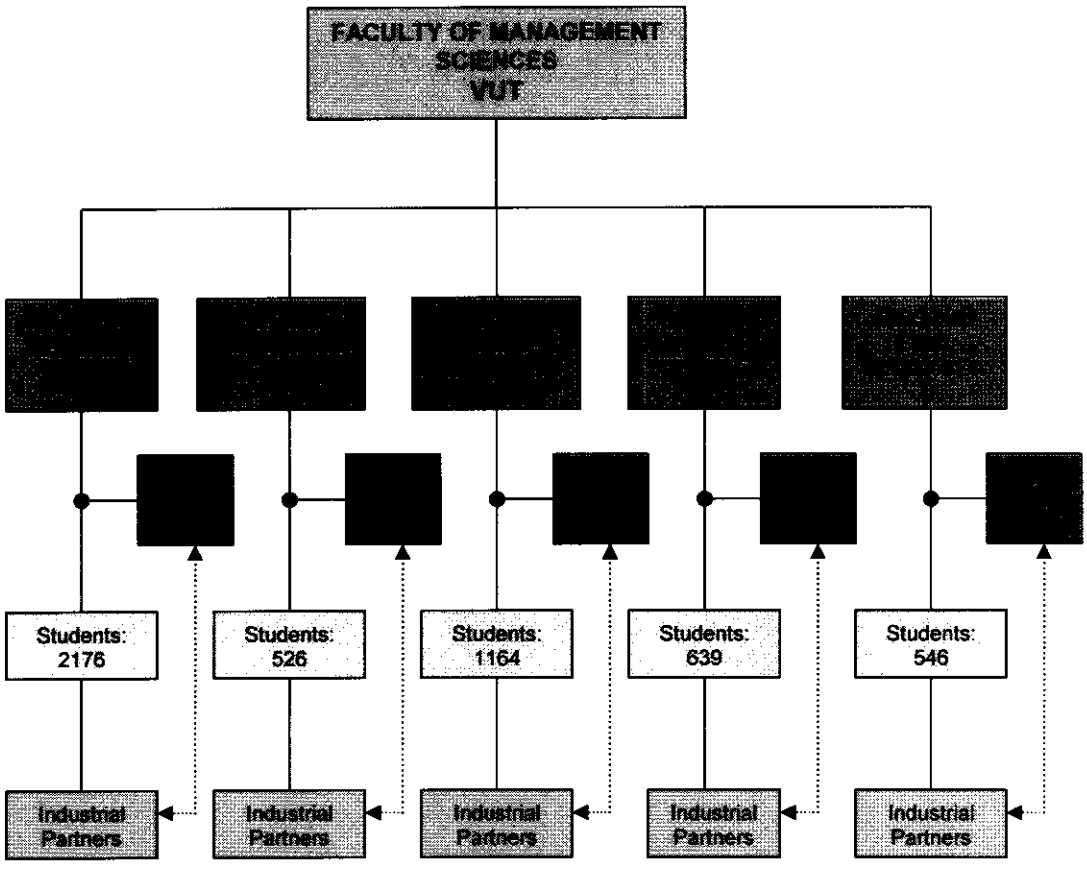
after the particular quotation or reference. The researcher uses primary sources only to enhance the validity of the research.

1.6.2 Empirical study

The second phase of the research will be an empirical study. Taking the demarcation of the study into consideration, the target population as mentioned in section 1.5, had to be limited to those employers who employ students who graduated at the Vaal University of Technology, Faculty of Management Sciences. Although this university has three satellite campuses, the researcher made use of only the main campus at Vanderbijlpark, due to the fact that not all courses are offered at the satellite campuses. A list of partners from industry in the Gauteng province will be obtained from the department of Co-operative Education. Questionnaires will also be distributed to members of the advisory committee of the different departments of the Faculty of Management Sciences at the Vaal University of Technology. Respondents will remain anonymous, ensuring greater objectivity. An illustration of the faculty structure and the integration of industrial partners and advisory committees, are shown in figure 1.2.

The questionnaire was divided into three sections. Section A focused on the personal information of the respondent. Section B reflected on the seven critical cross-field outcomes that must be built into all curricula at Higher Education Institutions. The researcher wanted to validate the degree to which employers are satisfied that graduates posses these skills. Section C determined the core of the study, namely employable skills required from graduates on entering the workplace. The skills were sub-divided into competences and or abilities.

Figure 1.2: Faculty structure, industrial partners and advisory committees



Source: Own Research

The questionnaire used for collecting information regarding graduates' employable skills, consisted of close-ended questions. Respondents were requested to rate their answers on a scale from 1 to 4 and depending on the section, 1 represented "disagree" and 4 represented that the respondent agreed with the question asked. A pilot study was done to test the validity of the questionnaire. Thirty independent respondents completed the questionnaire. Feedback was incorporated into the final questionnaire, whereafter it was distributed to the target

population. Seventy-nine (79) employers received the questionnaire and 56 completed questionnaires were returned. The response rate was 70,9 %.

With regard to the statistical analysis, data collection, processing and analysis will follow the survey research. A qualified statistician, using applicable software and methods in order to obtain the best results, will do all processing and interpretation.

1.6.3 Hypothesis in respect of the research issues

Due to the nature of the study, no hypothesis will be formulated. The emphasis on this study is to explore trends in the cases analysed.

1.7 PROVISIONAL CHAPTER DIVISION

The following is a detailed outlay of each chapter:

- **Chapter One: Introduction and scope of the study.** The first chapter deal with the background and scope of the study. It highlights the problem statement, research objectives and demarcation of the field of study. The research methodology and the content of the study are spelt out in this chapter.

- **Chapter Two: Employable skills for the 21st century: An international and national perspective.** Chapter two focuses on the need for employable skills needed in the workplace. It furthermore focuses on a global perspective of employer's expectations of graduates as well as the South African scenario.

The theory of the outcomes-based education (OBE) approach and the Skills Development Act (SDA) are also discussed.

- **Chapter Three: Determining the employable skills needed for a global workforce.** This chapter consists of a literature study that includes a discussion on the situation at Higher Education Institutions (HEI's), and also assessing the employable skills employers expect from graduates. Skills needed to bridge the gap from being a graduate to a 'freshman' employee, are also discussed.

- **Chapter Four: Research methodology.** This chapter focuses on the empirical part of the study. Various statistical methods and techniques used and applied during the scope of the study, will be identified and discussed in detail. The chapter also aims to prove the reliability and validity of the study and the importance thereof.

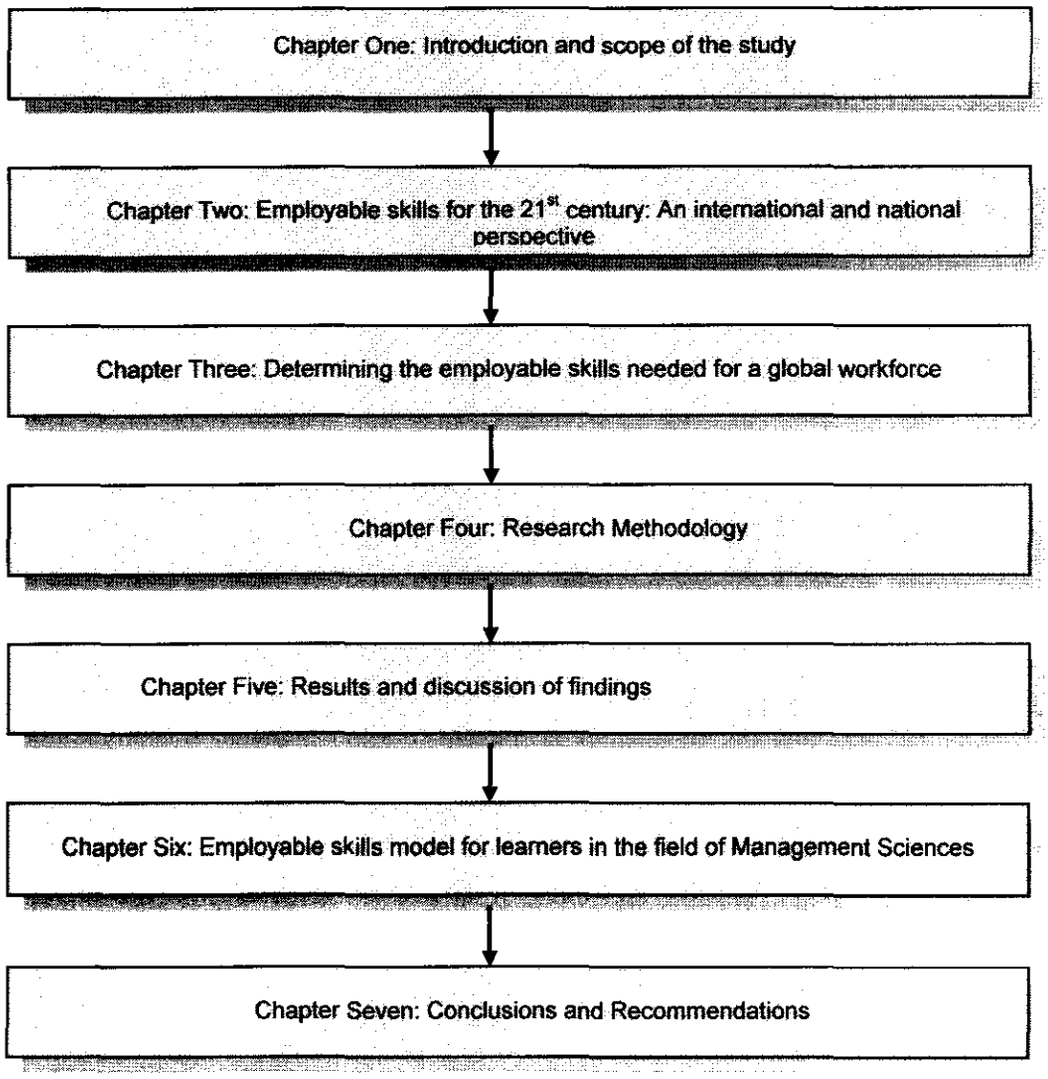
- **Chapter Five: Results and discussion of findings.** An analysis, interpretation and evaluation of the research findings are undertaken in chapter five. The results of the dimensionality, reliability and validity of the instrument used, are reported on. The statistical test used to analyse the data, is also presented.

- **Chapter Six: Employable skills model for learners in the field of Management Sciences.** The purpose of this chapter, is to develop a model that will address the lack of employable skills. The employable skills model will be developed from data received from the feedback of the questionnaires completed by employers. The model will address all the skills that employers expect from graduates.

- **Chapter Seven: Conclusion and Recommendations.** The final chapter will review the entire study and make recommendations. The managerial implications and some limitations of the study will be discussed. Ideas for further research will be given.

A summary of the division of the chapters is shown in figure 1.3.

Figure 1.3: Chapter division



1.8 TERMINOLOGY

Terminology that will be used is this study, will be discussed to clarify the different concepts and motivate the use of these concepts. A definition for each of these concepts is given as follows:

- **Employer:** The South African Concise Oxford Dictionary (2002:379) defines an employer as a person the employs people. Collins (2003:183) defines an employer as someone that other people work for.

- **Employable:** The South African Concise Oxford Dictionary (2002:379) describes employ as "... give work to (someone) and pay them for it, keep occupied". Employable is an adjective for employ.

- **Skills:** The Blackwell Dictionary (1995:518) defines "skill" as the proficiency at a specific task. The definition includes an evaluation of the level of proficiency and the task to be accomplished. Skills are acquired through learning and experience. Collins (2003:532) describes "skill" as the ability to do something well and the adjective, "skilled", is described as having the knowledge to do something well.

- **Employable skills:** With reference to the concepts above, the researcher defines employable skills as the level of proficiency and knowledge expected from a graduate to be employed by an employer for a specific job.

- **Competencies:** The word "competency" has been given various meanings by different researchers. In general, it is used to denote the qualities needed by a job holder; thus, an underlying characteristic of a person which results in effective and/or superior performance in a job (Blackwell Dictionary, 1995:83).

- **Higher Education Institution:** The Policy Framework for Education and Training that was compiled by the African National Congress (1995:127), defines higher education as all organised learning activities, which take place in colleges, technikons and universities or else under their academic supervision. Although the term "Technikon" is used in the definition, in October 2003 the term "Technikon" was replaced by University of Technology.

- **Skills Development Act:** The Skills Development Act (SDA) is defined by The South African Concise Oxford dictionary (2002:379) as the provision of an institutional framework to devise and implement national, sector and workplace strategies. The Skills Development Act will be discussed in detail in chapter two.

- **Outcomes-Based Education:** Luczyn and Pretorius (1998: unit 3/6) define outcomes-based education as a flexible, empowerment-oriented approach to learning, aiming at equipping learners with the knowledge, competence and orientations needed for success after they have completed

their training. It is learner-centred, result-orientated, and its design is based on the belief that all individuals can learn.

1.9 ACRONYMS

The following acronyms are used in this thesis:

- CCFO — Critical Cross-Field Outcome
- ESM — Employable Skills Model
- ESP — Employable Skills Programme
- FET — Further Education and Training
- ESM — Employable Skills Model
- ESP — Employable Skills Programme
- HEI — Higher Education Institution
- NPHE — National Plan on Higher Education
- NQF — National Qualifications Framework
- OBE — Outcomes Based Educations
- SAQA — South African Qualifications Authority
- SDA — Skills Development Act
- VUT — Vaal University of Technology

1.10 GENERAL

The following remarks refer to the general outlay of the thesis:

- Annexures are provided at the back of this thesis.
- Table and figures are placed on relevant pages within the thesis.

- Questionnaires are provided as an annexure at the back of the thesis.
- Where no sources are mentioned, it refers to own research.
- If reference is made to only the year, emphasis is placed on the general impression of the author.
- Statistical data used with regard to the Vaal University of Technology, were received from the Data Processing Department at the University.

This chapter is a summary of the field of study, including the problem statement, research methodology and other important concepts. The employable skills for the 21st century: an international and national perspective, will be discussed in the next chapter.

CHAPTER 2

EMPLOYABLE SKILLS FOR THE 21ST CENTURY: AN INTERNATIONAL AND NATIONAL PERSPECTIVE

2.1 INTRODUCTION

The need for employable skills surfaces during various interviews with human resource managers, lecturers, partners in business and employers. The aim of this chapter, is to explain the background for an international and national perspective regarding employable skills. The Skills Development Act, together with the South African Qualifications Authority, will be taken into account.

2.2 BACKGROUND: THE NEED FOR EMPLOYABLE SKILLS

In 1995, South Africa had a population of 40,6 million, of which 14,3 million were economically active or formed part of the employable workforce. With regard to skilled or competent employees, 50 percent was classified as low-level, 34 percent as middle level and 16 percent as high-level human power (Greyling, 2001:37).

Approximately one third (32,6 percent) of economically able employees were unemployed, of whom 86,9 percent did not possess the necessary skills for specialised employment (Greyling, 2001:37). The percentage economically disempowered or unemployed workers, has since increased to 45 percent (SABC News, 9 May 2000), once again indicating a significant shortage of workers possessing the necessary employable skills or competencies.

In respect of the unemployment rate, South Africa has experienced substantial changes in its composition of formal employment. Between 1990 and 1998

formal employment of semi-skilled and unskilled labour declined by 19 percent (700 000 jobs), while employment of highly skilled professional and managerial labour rose by 12 percent (80 000 jobs). Greyling (2001:37) and Bhorat (2002:11) also argue, that high unemployment results from the lack of skills in the labour force and this poses specific challenges for, in particular, Higher Education Institutions to deliver employable human power.

Kroon and Meyer (2001:47) support the previous statements and emphasise, that unemployment in the South African labour market is at the order of the day and that only 7 percent of school-leavers find employment in the formal sector. One of the reasons Kroon and Meyer mention, is insufficient training pertaining to employment in government, industry and commerce.

The following statistics quoted by Hall and Roodt (1999:12) emphasise the need for empowered employees.

- The total number of formal positions in the South African non-agricultural labour market, amounted to ± 5,9 million in 1998.

- Total employment in the formal economy (excluding agriculture) is expected to increase by about 45 0000 job opportunities between 1998 and 2003, which amounts to a growth of less than 1 percent over the entire period.

- Growth rates vary considerably across broad occupational categories. The highest growth rates are expected among professionals (9,6 percent) and managers (6,2 percent), followed by artisans (3,9 percent). Little change is expected at the level of clerical/sales/service workers and a substantial decline in employment is expected at the level of semi-skilled and unskilled workers (3,4 percent).

- Most jobs are expected to be created at the professional level, with total employment of professionals likely to rise by 93 000 between 1998 and 2003. Employment increases of 16 000 and 12 000 are expected for managers and artisans respectively. An estimated 71 000 semi-skilled and unskilled positions are expected to be lost over the five-year period.

- The different expected employment growth rates are likely to result in a continuation of the change in the occupational structure of employment having been experienced in South Africa since 1965. The professional, managerial and artisan occupations are expected to increase their shares of total employment over the period 1998 to 2003. Professionals show the largest gain, from 16,2 percent of total employment in 1998, to 17,6 percent in 2003. Clerical/sales/service workers and semiskilled workers are both expected to show a decline in their shares of total employment over the five-year period. The latter category is expected to show a decline from 34,6 percent to 33,1 percent.

- There are considerable differences between employment forecasts in the government (central, provincial and local government) and non-government sectors. Whereas total employment in the private economy is expected to grow by almost 3 percent between 1998 and 2003, it is expected to decline by 4,5 percent in government. The major reason for these differences, is the budgetary constraints facing government, coupled with a commitment to downsize the public service.

2.3 GLOBAL PERSPECTIVE

Twenty or thirty years ago, national borders acted to insulate most firms from foreign competitive pressures. That is no longer true; organisations are no longer constrained to national borders. The world has truly become a global village and a study of this nature cannot be done without benchmarking with other countries and institutions.

One of the most important policy challenges facing South Africa today, is to respond to the changes in the way in which the world economy works. These changes in the world economy are known as globalisation. Our transition is taking place at a time in which there are enormous changes in the international (world) system. There is no longer any alternative socialist block of countries that used to allow developing countries and countries attempting the transition to democracy to structure their trade, aid and investment relations. At the same time, powerful forces of globalisation and liberalisation are changing the capitalist world economy.

Global competition and rapid technological change have been the driving forces for a more flexible and competent workforce (Papalexandris and Nikandrou, 2000:391). The implications of a growing global economy, technological inventions and organisational shifts in the world of work in South Africa, are self-evident. This implies that in order for South Africa to be competitive, companies will have to invest in a worker corps according to the requirements set by world class companies (Pretorius, 1998:vii).

According to Noe (2002:282), employee development is a necessary component of a company's efforts to improve quality, to retain key employees, to meet the challenges of global competition and social change, and to incorporate technological advances and changes in work design. Increased globalisation of

product markets compels companies to help their employees understand cultures and customs that affect business practices. For high-involvement companies and work teams to be successful, their employees need strong interpersonal skills and employees must also be able to perform roles traditionally reserved for managers.

In this era of globalisation, products and services are crossing borders at an increasing rate, supplying the needs and demands of consumers, business and other organisations in a variety of ways and across a variety of geographic and cultural locations (Salehi-Sangari and Foster, 1999:760).

Oblinger and Verville (1998:20) mention, that corporations, governments and international organisations are calling for a more prominent role for education, from basic literacy to lifelong professional education. The rationale is the same worldwide: economic prosperity is linked to an educated workforce than can compete in a global economy. One of the challenges facing Higher Education Institutions, is to integrate globalisation into the curriculum in a meaningful way, so that it can be used to the benefit of graduates, rather than its being a constraint.

Research done by Kimani (2000:13), recognises that in developing countries, education has not been producing the types of skilled personnel or productivity increases that have been expected. This has called into question the relevance of education in a world in which education reform has not necessarily kept pace with fundamental transformations in the nature of work and labour markets.

Employers, government agencies and labour unions, as well as students, have often criticised the presumed failure of Higher Education Institutions to offer the preparation that workers require to find jobs and to succeed in today's globally competitive society (Christie, 1996:14). As a result, this has not led to only the

rising unemployment levels among university graduates and a serious mismatch between higher education and the labour market, but also the generation of a lax in the efforts to prepare people to adjust to the social realities produced by global economic changes.

The following research findings indicate, that South Africa is not the only country where employers experience problems with people entering the job market for the first time and who do not possess the necessary or required skills.

2.3.1 United States of America

According to Charp (1997:6) and Hoye and Drier (1999:35), as early as 1909, U.S. education and labour leaders sought ways to more clearly connect students with the workplace. They state furthermore, that business and education need to better understand how to work together. According to Holdsworth and Gearhart (2002:158), the skills shortage confronting the United State's economy, goes beyond academic and hands-on occupational skills. For as long as there have been reports about the shortage of skilled workers, employers have been saying they need workers with "soft skills" such as communications and other interpersonal skills.

Holdsworth and Gearhart (2002:158) are of the opinion, that employable skills are foundation skills that apply across the board, no matter what the specific job may be. Examples include communication skills, teamwork skills, problem-solving skills and self-management skills. Students who develop hard-core subject-related skills alone, may end up being just as difficult to employ as those who learn no skills at all. Developing both social and technical abilities – in the same routine, with the same degree of emphasis and real-world concreteness – is the surest way to equip trainees for the demands of the workplace.

Noe (2002:343) describes 'school-to-work' transition programs as constituting a solution to the problems experienced in the United States of America. These programs help to prepare graduates for employment. The program aims to match students with employers and to bring classrooms and workplaces together.

2.3.2 Malaysia

The Human Resources Minister of Malaysia, Datuk Dr. Chan-Onn (2002:1), reported that graduates could not take up jobs, due to a mismatch or lack of soft skills. In 2002 only 660 of 13 000 graduates who had registered for jobs with the ministry were employed by private companies. The Malaysian government decided to launch a retraining programme for jobless graduates that will include soft skills modules such as language, information communications technology, teamwork and leadership training.

2.3.3 Australia

An interim report of the Australian Department of Employment, Education, Training and Youth Affairs (1998:1) concerning the satisfaction of employers with new graduates, mentioned the following three major reasons for recruiting new graduates.

- Providing a sufficient pool of future middle and senior managers.
- Filling the need for trained and educated people in areas requiring professional or highly skilled personnel.
- Introducing new ideas and techniques into workplace organisations.

The report states, that Australian business is expected to be more international with respect to operations and focus; and the world of work is expected to change rapidly in response to changing social and environmental conditions and

technological change. The need for graduates to demonstrate adaptability and flexibility in order to cope with this future change is important to some employers. New graduates also need to be aware of the need for continuous learning and re-training throughout their careers.

In addition to the above statement, Leveson (2000:157) states, that there appears to be a generalised perception within the employment sector in Australia and elsewhere, that students are continuing to graduate from higher education are deficient in many of the skills considered necessary for work.

Newton (2001:34) states, that it is widely acknowledged, that in today's society one must actively pursue the goal of life-long learning. Life-long learning is important for both career and personal growth. However, the costs in terms of finances, time and commitment, are often a deterrent to further education. Organisations need to provide the appropriate infrastructure in order to ensure that staff acquires the necessary skills. Procedures need to be implemented, whereby staff has the time to practise and to integrate their new skills into their working life.

2.3.4 Germany

Gibbons-Wood and Lange (2000:24) conducted a study on core skills needed in Germany. They are of the opinion that the core skills are synonymous with soft skills, core competencies, key competencies, transferable skills, etc. These skills are used to describe the transferable skills, which underpin competent performance in all fields. An apparent congruence of the personal, social and employment needs of individuals, encapsulated in core skills, has been brought about by the increasing acceptance of rapid and ongoing change for both the workplace and life.

The German economy is the third largest economy in the world. A considered key to its success, is the highly organised labour market. Central to this is the German "Dual System" which is widely regarded as one of the best national schemes for ensuring the effective school to work transition. Over the years the system has been particularly popular with businesses for providing employees with the skills and aptitudes they require. More recently, however, the system has been accused of failing to adapt to changes in the labour market and new skill requirements. Political uncertainties associated with Germany's recent change in administration mean, however, that any training reforms are unlikely to come to the fore until into the millennium (Gibbons-Wood and Lange, 2000:24).

2.3.5 Sweden

Salehi-Sangari and Foster (1999:760) mention, that the responsibility for the development of core skills in Sweden, has traditionally resided with the country's formal education and training system. The Swedish education system was originally modelled on the German dual system, with separate institutions for theoretical and vocational education. However, over time, this system has changed from a dual system to a system, which has integrated the provision of theoretical and vocational knowledge.

At the beginning of the 1970's, the new "Gymnasieskola" gradually integrated schools for theoretical and vocational upper secondary education and apprenticeships in private sector companies. Partly as a response to the sharply increasing teenage unemployment, the new "Gymnasieskola" were expanded at the beginning of the 1980's. Since then most students have continued to enter two-year vocational programmes or two- to three-year theoretical programmes provided by the upper secondary schools (Salehi-Sangari and Foster, 1999:760).

2.3.6 United Kingdom

Growth in the number of students entering higher education in the United Kingdom and increasing concerns about accountability, are shown to be influential pressures in introducing transferable skills teaching.

Business and government have largely articulated this pressure (Foley, 1999:14). In addition to this, the nature of higher education in modern universities is changing rapidly, as institutions take account of a number of major external factors.

Fallows and Steven (2000:75) identify three external factors that have an influence on higher education. These factors are as follows:

- **Increasing international recognition**. The transition form the world of higher education into the world of employment, is not always straightforward. In the United Kingdom, the considerable increase in the number of students passing through the higher education system, now means that the competition for established positions in traditional "graduate employment" and the professions, is fierce and; in consequence, the range and variety of jobs into which graduates are moving, is becoming increasingly diverse. Only a minority of graduates are able to gain employment which directly utilises the academic content of their higher education curriculum.

- **Importance of the academic curriculum.** The academic curriculum is essentially a vehicle through which other attributes are delivered. These attributes are largely constant, regardless of the subject studied.

- **The world of employment is changing rapidly.** Permanence is no longer a significant feature. Traditional career paths have disappeared, entire industries have relocated to other areas of the world and new technologies have made established practice and experience irrelevant. However, new industries have emerged as major employers. Many of those in employment today, are engaged in jobs that simply did not exist twenty or even just ten years ago.

Since 1997 the United Kingdom labour market policies have seen an increasing emphasis on learning and skills driven by the following two particular forces (Ellis, 2003:83).

- First, there has been a desire to improve the effectiveness of the state educational and vocational training system.

- The second movement towards skills development, has been the establishment of the National Skills Task Force. The task Force's responsibility is to advise on the development of the National Skills Agenda, concentrating on the identification of employer's skills needs and government's response to them.

2.3.7 Greece

Papalexandris and Nikandrou (2000:391) mention, that the globalisation of economic activity and the rapid technological developments require a better qualified workforce having multiple skills. As a result, rapid obsolescence of competences necessitates the continuous updating and developing of the required skills which are the key to competitiveness and growth.

The outcomes from a study done by Papalexandris and Nikandrou (2000:391) when benchmarking employee skills from the best practice firms in Greece underscore the following.

- Training can no longer be treated as a method to cure skills deficiencies.
- Training should be seen rather as a continuous, life-long learning process.
- Acquiring human skills, presents the greatest challenge for training.
- Adaptability and self-learning are necessary elements that need to be incorporated in the educational system from its early stages.

The above-mentioned literature highlights the global concern, that students do not possess the necessary employable skills expected from employers. In order to determine the specific needs, the following section will address factors that could have had an influence in this regard.

2.4 THE SOUTH AFRICAN SCENARIO

2.4.1 Historical Background

It is a well-known fact, that the South African education system was organised along racial lines prior to the 1994 democratic elections. A system based on the principles of equity was instituted, providing for central, as well as provincial and local organisation of education. Thus, in respect of organisation, the South African education system changed from a racially differentiated system to a

geographically differentiated system, thereby eliminating some of the duplication of the past government (Van Wyk and Mothata, 1999:1).

The transformation of Higher Education Institutions entails a massive increase in access to Higher Education Institutions for students from disadvantaged backgrounds since the middle 1980's. The extent and nature of the disadvantages that such students continue to face, despite recent social and political changes, are well understood. These include the following (Wood 1998:87; Kaunda and Ball 1998:130; Boughey, 1998:166).

- Poor socio-economic conditions
- A legacy of inferior schooling and studying through the medium of a foreign language.
- Diversity of educational and linguistic backgrounds.
- The lack of life-skills.

The question could be asked whether this statement is not also the reason why employers experience problems with incompetent employees. It is clear, that labour leaders sought ways over the past few decades to more clearly connect students with the workplace.

The school education system and higher education, including the interaction between education, student and employer, will be discussed in the next sections.

2.4.2 The School Education System

The traditional South African education system was divided, which led to great inequalities in educational standards. Pretorius (1999:vii) emphasises, that the academic curriculum was too academic by nature and did not keep in touch with

the requirements of the sphere of work and possible future needs of both students and the wider community.

Pretorius (1999:vii) highlighted the following problems experienced in terms of the traditional education model for schools in South Africa.

- The curriculum was too rigidly structured, prescriptive and not easily adaptable, with little room for educational initiative.

- Traditional curriculum processes were too restricted and without any stakeholder participation in the decision-making process.

- The accent fell on academic education, while skills education remained behind.

- A large gap existed between education in the formal educational sectors and training by employers.

- Too great an emphasis was placed on differentiation in the form of a wide variety of subjects. Successful economies need citizens with a strong foundation in general education in order to equip people for flexible movement between various vocations.

- The curriculum was content-based – the teacher instructed and the students memorized.

- It was teacher-centred, rather than student-centred.

- Student achievement was measured in terms of symbols and percentages, which are often no real indication of actual performance.

- Student achievement was compared to that of other students and this led to excessive competition.

Jansen (1997:21) adds that further problems in the current school system in South Africa are:

- the teacher : pupil ratio of 1:56 in historical disadvantaged schools;
- the relevancy of syllabi;
- too little time is allocated to the practical application of different concepts; and
- lack of skilled teachers.

Teachers constitute the key to quality in any educational system. Research done by De Villiers (1996:135) has proven, that 46 percent of the teachers at previously disadvantaged schools in 1994 were under-qualified or did not have any qualifications at all. These teachers received an inferior salary, that again led to a low morale.

2.4.3 HIGHER EDUCATION IN SOUTH AFRICA

2.4.3.1 Challenges facing higher education in South Africa

Worldwide Higher Education Institutions are being confronted with formidable challenges. In South Africa these challenges have prompted the need for new policies, legislation and qualification frameworks. According to Louw and Verwey (1999:79), the following three major changes which face South African education and training have been identified.

- Creating an equitable system of education and training which serves all South Africans well.

- An improvement in the present quality level of education and training.

- An integrated approach to education and training that will take into account and give value to the kind of learning that people have already achieved in their lives.

Gone are the days in which Higher Education Institutions were isolated autonomies secluded from the rest of the world. Higher Education Institutions that do not address the demands and needs set by industry, will soon realise that institutions that do adapt to industry's needs, are a force to be reckoned with. Davies (2001:37) is of the opinion, that higher education institutions will need to continue to redefine their roles and adjust their programmes in order for them to address the demands and needs of industry and commerce.

It is important that there must be a smooth transition from the role of student to that of employee. Employers are paying a high price for graduates, assuming that they have the required skills and experience after three or more years of study. On 1 January 2000 a new millennium was entered, faced by many challenges and changes. Students, currently at higher education institutions, are taken up in the workforce at the beginning of each year and must be educated according to the requirements and challenges of this new millennium.

The National Plan on Higher Education (NPHE) is one of the vehicles initiated by government to address these challenges. Schultz (2003:43) summarise the details of the NPHE into the following three core aims.

- Decisively resolving the inherited structural and racial inequalities within the public higher education system, including their relation with civil society.

- Enabling institutions to position themselves in a non-competitive manner in support of the diverse human resource, social, economic and other development at national and regional levels.

- Repositioning institutions as primary public centres of excellence and innovation, and public drivers of global competitiveness.

Like all other sectors in South Africa, higher education has already undergone mammoth post-apartheid change, inspired first by the 1996 report of the National Commission on Higher Education and then by the 1997 White Paper. Both articulated the vision of creating a higher education system that would meet the country's development needs (McGregor, 2001:9).

2.4.3.2 The impact of globalisation on higher education in South Africa

It is evident that as we enter the new century, the business environment may be characterised as being keenly competitive, global, technology-intense and dynamic.

Lategan (2003:79-80) is of the opinion that no Higher Education Institution can be understood to be free from the global context. Higher education is now a global activity. Therefore, it cannot be denied that globalisation will have major influences on the engagement of universities. Development in the global context has significant implications for Higher Education Institutions hence South African institutions should be aware that there is an emphasis shift away from pure knowledge to a more market-driven education.

Global competition and rapid technological change have been the driving forces for a more flexible and competent workforce. Industry expects graduates to add value to world-class companies. Graduate training and skills development has

received an unprecedented level of attention, especially form employers seeking to enhance the graduate-employer match and to reduce the level of unemployment during the past few years (Currie, 2003:20).

Rapid changes have been brought about by globalisation and technology, that challenges Higher Education Institutions to stay abreast of these changes. Stewart and Knowles (2000:77) are of the opinion, that via curriculum development, Higher Education Institutions can assume a leading role in assisting students to develop skills and to transfer their learning and development to the world of work. Developing and locating "skills"-related modules at the core of courses, as apposed to being located on the fringes, is considered necessary if such learning and development is to be embraced by both students and staff.

2.4.3.3 The shortcomings of higher education programmes

Gnanam (2000:147) is of the opinion, that competencies like general skills; critical thinking skills, writing and interpersonal communication skills are prerequisites for success, due to the fact that they are subject-neutral and transferable to any situation in life.

From the researchers own experience, it appears that educators in management science struggle to revise and update the curricula in order to produce graduates with the skills and abilities they need to enter the business world and to contribute effectively to their organisations.

The job market and society at large demand not only subject knowledge and subject-related skills. As far back as the 1980's, business leaders started to voice their opinions concerning South African education, namely that the skills required by the modern workplace, are dissimilar to the direction in which the education system prepared the students in the country (Pretorius, 1999: ix).

Higher Education Institutions must develop students as a whole. It is important to deliver an end-product that meets or exceeds the demands of industry. This entails that students must develop their marketability and employable skills, in order for them to make a smooth transition from being a student to becoming an employee.

Over the past decades expectations of Higher Education Institutions have grown. Employers and other stakeholders expect more than subject knowledge. Higher Education Institutions are now charged with promoting graduate employable skills – contributing directly to the stock of human capital (Knight and Yorke, 2003:16).

Van den Berg (2000:96) is of the opinion, that the rules for future employment are changing and so is the vision of the South African higher education system. Nowadays, it is no longer a case of how academically smart and technically skilled candidates are, but also how well-equipped they are with a diversity of work-related skills. It is, however, important that students must not only possess the knowledge about the required skills; in this regard Dench (1997:190) stresses, that students must be able to apply these skills in the workplace.

Without competent people, new strategies for productivity enhancement, small business promotion and development will flounder (Baird, 2000:26). Companies cannot afford to carry any dead wood. Employers ensure that they receive return on investment.

Evans (1999:103) mentions, that to ensure long-range economic viability, educational institutions and industries alike demand a workforce skilled in technological applications. Students are expected to demonstrate technological literacy – a new literacy for modern students in a modern society.

Higher Education Institutions must not only take the necessary steps to ensure that students are knowledgeable in the subject-specific matter associated with a particular academic discipline or field of study, but graduates must also be fully equipped with the skills necessary for the very important transition into the world of employment and onward, to life-long learning (Fallows and Steven, 2000:77).

To support this statement, Maharasoa and Hay (2001:1) state, that the ability of an institution to ensure employable skills has become a notion of institutional quality and is depicted as a notion of quality.

As the academy and the workplace are drawn into a close relationship, the effect on the higher education curriculum has been to force a focus on the teaching and learning of employable skills, which are presumed to make graduates more employable and to facilitate their capacity for lifelong learning (Luckett, 2001:50).

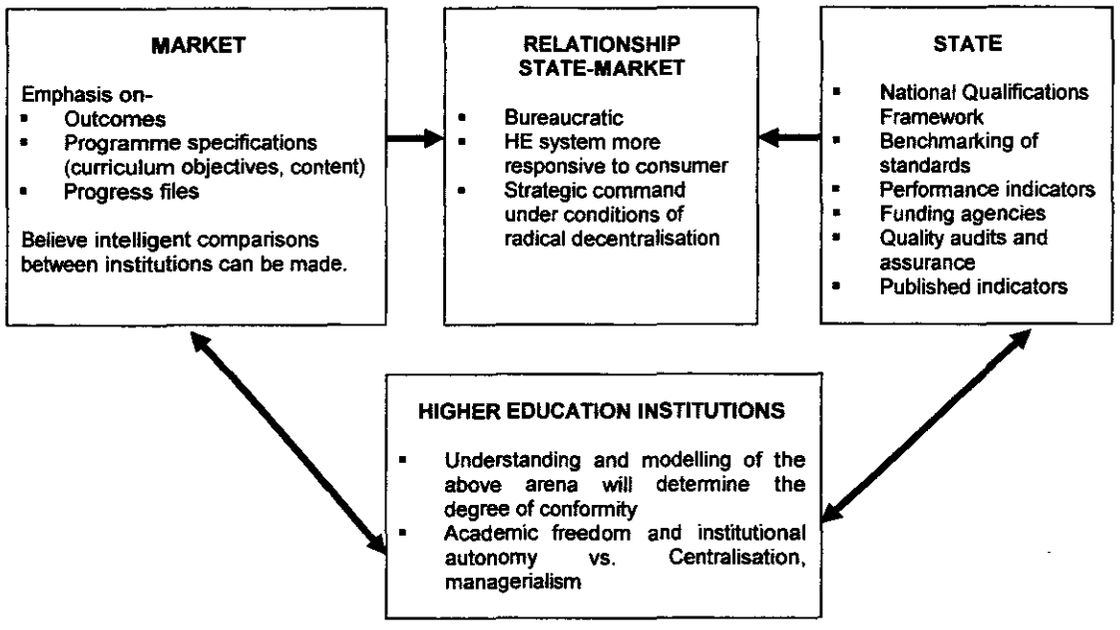
Higher Education Institutions have to take and active role via curriculum development, which embraces the notion of employable skills development for graduates before entering the workplace (Stewart and Knowles, 2000:75).

2.4.3.4 The partnership between all primary stakeholders

It is important to comprehend the interaction and partnerships of the various primary stakeholders in higher education. The first important relationship or partnership, is that between the state, the market and Higher Education Institutions (HEI's).

This relationship is shown in figure 2.1 (Middleton, 2000: 39):

Figure 2.1: The relationship between the state, market and HEI's



Source: Adapted from Middleton (2000:39)

The second important relationship or partnership, is that between industry, students and Higher Education Institutions, as guided by government policies, regulations and structures. Falkov (1997:335) identifies the following components towards establishing a structured link between industry, students, Higher Education Institutions and government.

- Learnerships and company training must structure the education and training process into the workplace.

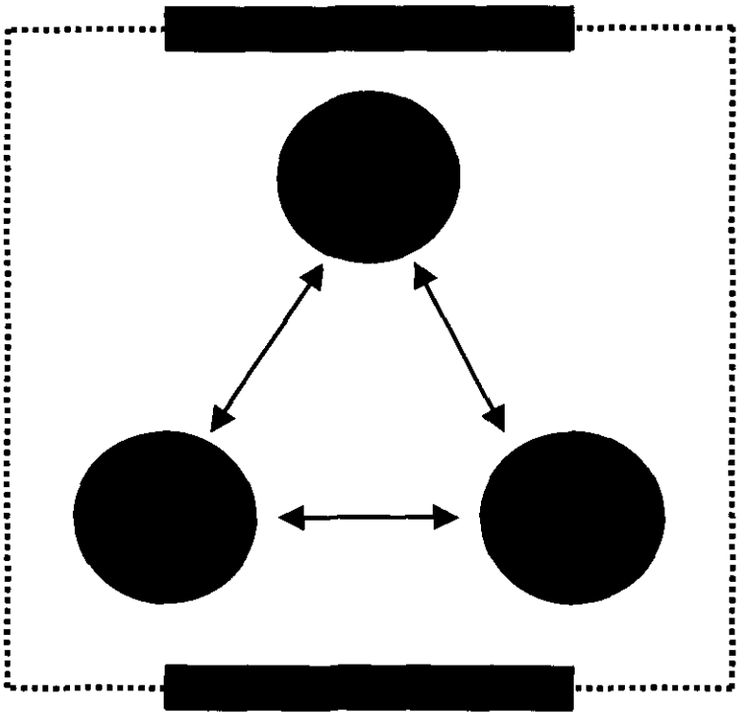
- The proposed National Skills Authority, Sector Education and Training Organisations and the design of the levy scheme, all aim to give employers a strong say over the allocation of resources in the system, alongside government. This ensures that industry has a direct influence over the content of education and training programmes.

- The dissemination of information on employment and skills demand, will assist education providers, training providers and companies to make more informed education and training decisions.

- The restructuring of the Department of Labour's employment services will provide individuals with information and services to improve their access to employment and education and training opportunities.

The researcher defines the relationship or partnership between industry, students and Higher Education Institutions, guided by government policies, regulations and structures by way of an illustration as shown in figure 2.2.

Figure 2.2. Relationship between industry, students, HEI's and government



Source: Own Research

2.4.4 The impact of language proficiency of students on higher education

Language has been cited as one of the major barriers to academic success in higher education, not only in South Africa, but also in other countries (Kaunda, Allie, Buffler, Campbell and Lubben, 1998:122 and Goduka, 1998:37). In modern education a critical need exists to better understand the relationship between language skills and content/subject matter. Garmaroff (1998:109) argues, that it is difficult, perhaps impossible, to separate the language-specific cognitive structures of language proficiency from knowledge or from problem-solving abilities.

Research done by Sutherland, McFarlane and Vermeulen (2002:11), show that the average English proficiency of enrolled students at the Vaal University of Technology falls below the level of grade eight. The results imply that the average of the enrolled students were not functionally literate on a tertiary level.

In order to address the above-mentioned problems, outcomes-based education (OBE) was implemented in South Africa in 1998. Matentjie (1999:143) found, that educators at higher education institutions have begun looking at how OBE will change the teaching and assessment practices in higher education. Outcomes-based education will be discussed in the next section.

2.5 OUTCOMES-BASED EDUCATION

Minister Kadar Asmal reported, that the majority of students have access only to education of a poor quality. There is no equity in educational achievement, because the social distribution of quality is uneven. Many children, the majority of whom come from the poorest of the poor, do not have access to effective teaching and learning, to a basic supply of textbooks and to other learning support materials. South Africa begins from a very low skills base, which is

skewed not only in racial and gender term, but also in the provision of skills that are critical for a competitive economy. He further emphasised, that success in our effort to improve education is therefore a necessary condition towards improving human development in South Africa to achieve the national goals of economic growth, fighting poverty and entrenching our democracy (Mji, 1999:17). This is one of the reasons why outcomes-based education was introduced in South Africa.

Outcomes-based learning differs from traditional content- or competency-based learning, in the sense that those types of learning are mainly content/skills driven and teacher/trainer centred. Content-based learning is aimed at the mastering of knowledge, such as the topics of a subject, which are structured to form a syllabus. The sources of information are mainly textbooks and the teachers/trainers themselves. With outcomes-based learning, the learning process is student-driven and aims at achieving outcomes. Knowledge and skills can be drawn from any source and the role of the lecturer changes accordingly, to provide guidance for the students to achieve their outcomes by guiding them through specific learning procedures, which are connected to real-life situations and in ways through which outcomes are achieved in the real world (Olivier, 1998:3).

The theory of outcomes-based education and the application thereof in higher education, play integral roles in the history of South African Education. Concerns that the education system cannot adequately prepare students for life and work in the 21st century, have prompted people across the world to explore new ways of designing education. Possibly the most significant educational trend operating in the world today, is that of OBE (Boughey, 2000:10). South Africa has embarked on a process of education renewal by adopting the OBE approach. The new curriculum for South African schools is a watershed, because its outcomes-based approach represents a new paradigm in education (Pretorius, 1998:v). The main

reasons for the educational transformation, may be attributed to the following factors.

- ***The emergence of the global economy.*** The new international economy is characterised by intense competition between countries. Despite this intense competition, countries are striving for greater co-operation in order to form greater power bases. To achieve this, a country will have to invest in a dynamic corps of workers. In this process high educational standards are of critical importance. A country's economic competitiveness can be improved by improving the quality and availability of appropriate education (Pretorius, 1998:vi).

- ***Technological inventions.*** Enhanced productivity, made possible by technological changes and quality in production processes, is of the utmost importance in order to allow for a country to stay economically competitive. This necessitates a highly skilled workforce, which requires major educational priorities (Pretorius, 1998:vi).

- ***Changes in the organisation of work.*** Today's world of work requires more skills and abilities from employees, such as the improvement of operational projects, problem-solving, thinking and communication skills, teamwork and quality control. The ability to learn independently and to contribute to one's own further and lifelong development, is essential, since much of today's knowledge will be obsolete in five years' time (Pretorius, 1998:vii). Employers need workers with confidence, positive attitudes towards change, a good work ethic that reaches further than just the work situation, and a positive outlook towards co-operation with others in competent teamwork.

- ***Bridging the academic/vocational divide***. Most education systems of the past were based on a split between academic and vocational education, resulting in an early channelling of students and a rigid system where students cannot change from one stream to the other. This causes inflexibility where articulation between academic and vocational education and the transferability of skills were grossly neglected.

- ***The legacy of an unequal system of education.*** Within the South African education system, the legacy of a grossly unequal and discriminatory education system of the previous regime, necessitated a revisit of the whole education system, not only to bring it in line with modern international trends, but also to address past inequalities.

It is clear from the above-mentioned that transforming South African education is essential. If South Africa endeavours to keep up with the rapid change in the international economic arena, and with economical and organisational inventions, education will have to be fundamentally different in order to provide an investment in a dynamic workforce (Pretorius, 1998:ix).

The South African education system was and still is in the process of changing from an objectivist content-driven approach, to a transformative outcomes-based education approach. The emphasis now falls on student-centred, experiential and outcomes-orientated education, where attitudes of critical inquiry and powers of analysis are developed (Makoni, 2000:166). According to Pretorius (1998:x), the South African education system is committed to implement transformational outcomes-based education. It moves away, not only from the existing curriculum, but also from the given structures of teaching and learning. OBE is, therefore, a model whereby education can be changed incisively.

The OBE approach deviates from the conventional and traditional content-based education and training in the sense that it is focusing on the mastering of processes linked to intended outcomes, as well as on mastering of the knowledge and skills needed to achieve the outcome (Olivier, 1997:15).

The following comparison between the traditional content-based education system and the outcomes-based education system, makes it easier to understand what OBE is all about. This comparison is illustrated in table 2.1.

TABLE 2.1: Comparison between the traditional content-based education system and the outcomes-based education system

CONTENT-BASED EDUCATION	OUTCOMES-BASED EDUCATION
Passive students	Active students
Exam-driven	Assessment on an on-going basis
Content-based syllabus	An integration of knowledge
Textbook and lecturer-centred	Student-centred
Syllabus is rigid	Lecturers can be innovative and creative
Lecturers responsible for learning	Students responsible for own learning
Emphasis: what lecturer hopes to achieve	Emphasis on outcomes
Content placed into rigid time frames	Flexible time frames
Rote-learning	Critical thinking, reasoning, and action

Source: National Department of Education (1997: 6-7)

Outcomes-based learning implies, that students must demonstrate the achievement of an outcome, as well as the processes that have been followed. Following processes and mastering knowledge and skills, are as valuable as achieving the outcome, but are not outcomes in themselves.

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The following two kinds of outcomes are distinguished (Olivier, 1998:16).

- ***Critical outcomes***: These relate to the broader intended results of education and training. These macro outcomes express the intended results of education and training in a broader macro sense, linked to national goals and the aims to be achieved. Critical outcomes are generic and cross-curricular and are the same for all learning areas.

- ***Specific outcomes***: These pertain to a particular context or learning area and draw on specific knowledge and skills. Specific outcomes express the results of narrowly defined aspects of learning and are context-linked, yet they still support the Critical Cross-field Outcomes.

According to Boughey (2000:10-11), OBE questions the assumption, that simply knowing or understanding disciplinary content, enables a person to apply knowledge and argues instead, that students actually have to be taught applications and capabilities. Learning outcomes are the things we expect graduates to be able to do, as a result of their learning. An outcomes-based approach involves using the disciplines to teach them to do these things. Merely understanding disciplinary content, is not an outcome in itself. Understanding of content allows the student to do something and that skill may be said to be an outcome.

It is clear from the above-mentioned, that OBE fosters a better integration between education at school, higher education institutions and the workplace or industry. It is believed, that the introduction of OBE will contribute towards the lack of specific skills, as identified in section 2.4.3.3. Although OBE will address an enormous need to develop future employees, these students will enrol at Higher Education Institutions only in 2005 and will not be entering the labour market before 2008.

Another vehicle to address the shortcomings of the education system in South Africa, is the Skills Development Act, that will be discussed in the next section.

2.6 SKILLS DEVELOPMENT ACT

2.6.1 The need for the implementation of the Skills Development Act

The last 56 years of the 20th century were characterised by prohibitive government policies resulting in under-development, poverty and deprivation. The prohibitive social and education policies of the pre- 1994 period, limited access to education and skills. These policies produced very low levels of cognitive and technical skills (Mazibuko, 2003:25). The new government, however, took several steps to change these imbalances.

The Department of Labour's Green Paper identified a number of shortcomings and flaws in the training system, including South Africa's poor human resources record and the failure to meet middle-level skill requirements in the economy. The paper also attributes the low impact of existing training programmes, while an important factor that is mentioned is the lack of integration of learning programmes and work experience (Omar, 1999:55).

Yeomans (2001:18) emphasises that practical skills, as opposed to theoretical knowledge, are more important than ever to the new South Africa. Skills and knowledge need to be integrated.

Pretorius (1999:ix) supports Yeomans, by saying that business leaders started to voice their opinions as far back as the 1980s concerning South African education, namely that the skills required by the modern workplace are dissimilar to the direction in which the education system prepared the students in the country.

In order to address the deficiencies in the workforce, the South African government introduced the Skills Development Act, No. 97 of 1998 (Annexure D).

2.6.2 The purpose of the Act

The purposes of the Act, as set out in the SDA (1998:4), are to -

a) develop the skills of the South African workforce by –

   i) improving the quality of life of workers, their prospects of work and labour mobility;
   ii) improving productivity in the workplace and the competitiveness of employers;
   iii) promoting self-employment; and
   iv) improving the delivery of social services.

b) increase the levels of investment in education and training in the labour market and to improve the return on that investment;

c) encourage employers to –

   i) use the workplace as an active learning environment;
   ii) provide employees with the opportunities to acquire new skills;
   iii) provide opportunities for new entrants to the labour market to gain work experience; and
   iv) employ persons who find it difficult to be employed.

d) encourage workers to participate in studentships and other training programmes;

e) improve the employment prospects of persons previously disadvantaged by unfair discrimination and to redress those disadvantages through training and education;

f) ensure the quality of education and training in and for the workplace;

g) assist –

i) work-seekers to find work;
ii) retrenched workers to re-enter the labour market; and
iii) employers to find qualified employees.

h) provide and regulate employment services.

It is clear, that one of the main purposes of the Act is to ensure the quality of education and training in and for the workplace. It is envisaged, that by increasing the competency level of all employees, real value will be added in terms of institutional and/or organisational effectiveness. Greyling (2001:37) agrees, that the Skills Development Act, the Employment Equity Act and the Skills Development Levies Act have far-reaching financial and operational implications for higher education providers. In a dynamic employment context, it should seem clear that the status quo could no longer be maintained. There is no longer any place for fragmented training and development initiatives within institutions.

In order to reduce fragmented training and to ensure that the challenges faced by Higher Education in South Africa will be met, government created an integrated national framework for learning achievements, namely the South African Qualifications Authority. This will subsequently be discussed.

2.7 SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

2.7.1 Goals of SAQA

SAQA is a statutory body under the South African Qualifications Authority Act, 58 of 1995 (SAQA, 1995:1). The primary function of SAQA is to oversee the development and implementation of the National Qualifications Framework (NOF). According to Meyer (1999:26), the SAQA Act sets five goals for SAQA in the development and implementation of the National Qualifications Framework (NQF), namely to:

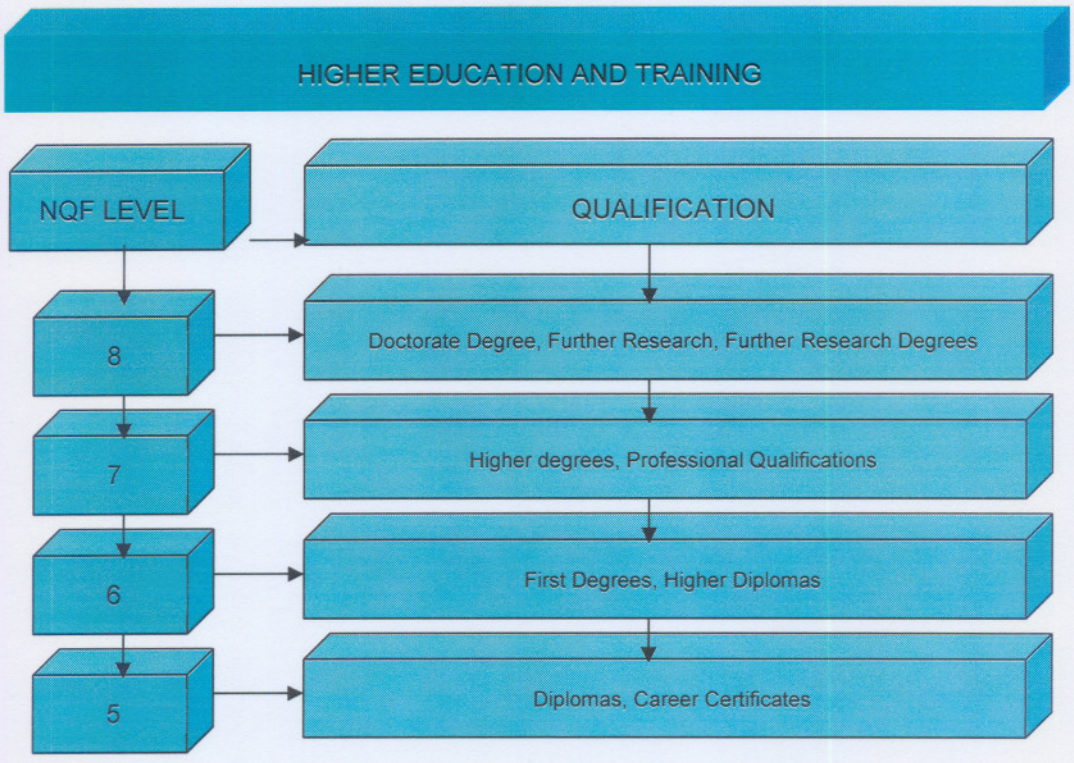
- create an integrated national framework for learning achievements;
- facilitate access to and mobility and progression within education, training and career paths;
- enhance the quality of education and training;
- accelerate the process of redressing past unfair discrimination in education, training and employment opportunities; and thereby
- contribute to the full personal development of each student and the social and economic development of the nation at large.

2.7.2 The National Qualifications Framework

In order to ensure successful implementation and achievement of SAQA principles, the NQF was developed. The NQF is a set of principles and guidelines which record student achievements to enable national recognition of acquired skills and knowledge, thereby ensuring an integrated system that encourages lifelong learning.

The structure of the National Qualifications Framework is shown figure 2.3.

Figure 2.3: Structure of the National Qualifications Framework



Source: SAQA (ny: 11)

Luckett (2001:52) summarises SAQA's curriculum content stipulations, that prescribes that -

- all qualifications be made up of three types of learning, namely: fundamental, core and elective learning;
- the critical cross-field outcomes are infused into all qualifications at all levels of the National Qualifications Framework and that these are demonstrated by students in integrated assessment tasks; and
- this integrated assessment provide opportunities for students to demonstrate applied competence, which means that foundational,

practical and reflexive competence are all necessary for the accomplishment of the tasks in a real world context.

Although the above three dimensions were mentioned, the researcher is to discuss the CCFO's, due to its relevance to the study.

2.7.3 Critical Cross-Field Outcomes

The Critical Cross-Field Outcomes (CCFO's) developed through a process of consultation with stakeholders in the education and training sectors, and finalised by SAQA, are the basic, general or generic outcomes, which underlie all teaching and learning and which all students need to achieve at all levels of their development. Critical outcomes relate to the knowledge, skills, attitudes and values that all students must attain in order to help them to be successful in life in a variety of contexts, and also to allow them to contribute to their communities and the country as a whole (Janse van Rensburg and Potloane, 1998:29).

Olivier (ny: 33) mentions that CCFO's are personal, thinking and life- skills, which are the abilities of people to be active, responsible and successful members of society. They provide the means to build a career and to make the person more effective in executing a job. CCFO's are working principles, and as such, they should direct teaching, training and education practices and the development of learning programmes and materials. In other words, all learning area outcomes and specific outcomes should flow from the CCFO's (Lubisi, Wedekind, Parker and Gultig, 1997:11).

Assessment in OBE is not focused only on what students can do, but intends to develop students holistically. In other words, students are also required to demonstrate certain life-skills, which will not only enhance their learning, but will also ensure that these skills are transferred to, and utilised in their private lives.

These skills are referred to as generic abilities and are expressed as Critical Cross-Field Outcomes (SAQA [ny]: 29).

It is mandatory for standards setters to incorporate at least some of the Critical Outcomes in the standards that they recommend, it is also stated, that qualifications must ensure that all Critical Outcomes have been addressed appropriately at the level concerned within the qualifications being proposed. Seven CCFO's and an additional five outcomes that support them. Based on the CCFO's, students will be able to do the following (SAQA, 1997:10; SAQA, ny: 29-30; Luczyn and Pretorius, 1998: unit 3:7-8, Ramphele ny: 8).

- Identify and solve problems, with responses showing that responsible decisions have been made by using critical and creative thinking.
- Work effectively with others as a member of a team, group, organisation, and community.
- Organise and manage themselves and their activities responsibly and effectively.
- Collect, analyse, organise and critically evaluate information.
- Communicate effectively, using visual, mathematical and/or language skills in the modes of oral and/or written presentation.
- Use science and technology effectively and critically, showing responsibility towards the environment and health of others.
- Demonstrate an understanding of the world as a set of related systems, by recognising that problem-solving contexts do not exist in isolation.

In order to contribute to the full personal development of each student and the social and economic development of society at large it must be the intention underlying any learning programme to make an individual aware of the importance of the following activities:

- Reflecting on and exploring a variety of strategies to learn more effectively.
- Participating as responsible citizens in the life of local, national and global communities.
- Being culturally and aesthetically sensitive across a range of social contexts.
- Exploring education and career opportunities.
- Developing entrepreneurial opportunities (Ramphele, ny: 8-9).

Table 2.2 summarises the Critical Cross-Field Outcomes

Table 2.2: Critical Cross-Field Outcomes

OUTCOME	CRITICALCROSS FIELD	DEFINITION
1	Problem-solving Skills	The ability to identify and solve problems, with responses showing that responsible decisions have been made, using critical and creative thinking.
2	Teamwork	The capability to work effectively with others as a member of a team, group, organisation and community.
3	Self-responsibility Skills	The ability of individuals to organise and manage themselves and their activities responsibly and effectively.
4	Research Skills	The ability to collect, analyses, organise and critically evaluate information.
5	Communication Skills	The ability to communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentation.
6	Technological and Environmental Literacy	The ability to use science and technology effectively and critically, showing responsibility towards the environment and health of others.
7	Developing Macro Vision	Demonstrating an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.

Source: Ramphele (ny:8-9)

2.8 CONCLUSION

Graduate unemployment continues to be a serious and growing problem in South Africa, yet the literature study undertaken, proved that minimum research has been done regarding employable skills in South Africa and that the research done was to a large extent more in Engineering and very little in management sciences. Most of the studies determining employable skills were done abroad. The Skills Development Act emphasises the importance of skills towards to creating a competent workforce in a global economy. Outcomes-based education is a starting point but these students will enter higher institutions of education only in 2005. The need to adapt the current curricula at Higher Education Institutions, comes clearly to the forefront. The following chapter will determine the employable skills expected by employers.

CHAPTER 3

DETERMINING THE EMPLOYABLE SKILLS NEEDED FOR A GLOBAL WORKFORCE

3.1 INTRODUCTION

This chapter constitute a literature study that will determine the employable skills employers expect from graduates. The skills needed to bridge the gap from being a graduate to an employee, will be discussed.

Dunn, Doughty and Walker (1996:27) state, that the utilisation of employees' skills, experience and other competencies, is the quest of many organisations. Organisations in the modern era find themselves in a new environment with challenges and increased competition, where even more emphasis is placed on the optimal utilisation of the skills of employees.

These skills are built into a measuring instrument so as to determine the present situation regarding employable skills in South Africa.

3.2 AN OVERVIEW OF STUDIES DONE TO DETERMINE EMPLOYER EXPECTATIONS

If a university degree ever did mean a job for life, those days are long gone. Employers of graduates look for much more than academic success. Interviewers want to hear hard evidence of the competencies one needs to do the job.

Harris (2000:14) is of the opinion, that firms want players, not spectators. Employers want to hire people who have a "can do" approach, those who get involved rather than those who stand on the sidelines and watch the world go by.

According to research done by Falconer and Pettigrew (2003:48), undergraduates need to prepare themselves for the changing workplace environment and culture by ensuring they do what they can to accumulate employable skills their future employers will require them to have. This is in addition to the academic and technical knowledge, which they will develop through their studies.

Dench (1997:190) argues, that although it is important not to over-generalise, employers are becoming more demanding in the skills they require of their employees and i.r.o. their need to look at the abilities, attributes and competencies that form a skill. Many of the skills needed to make people employable, are specific to particular occupations. Employers are, however, increasingly defining a set of "generic" skills that they seek when recruiting new employees. Graduates must not only be competent in these required basic skills, but they must also have the ability to apply these in the workplace.

An article in The Citizen (1998:5) reported, that a lot of energy is invested in the development of technical skills of people, but that soft skills are left behind. South Africa's admission to the global market will force employers to increase their investment in the development of soft skills as well. South Africa has been lacking real competition, but now that the country has been exposed to international competition, the lack of world-class skills is highlighted and employers need to be empowered to address the lack of certain skills.

The Skills Development Act is an honest effort in this regard and should have positive results in the near future.

The American Society for Training and Development (ASTD) conducted a research study with the United States Department of Labour in order to determine the skills employers require from entry-level employees (Koffel, 1994:1). The research identified seven skills categorised as being the most valuable to employers: this is shown in table 3.1:

Table 3.1: ASTD's seven employable skills

SKILL	DESCRIPTION
Motivation to learn	Develop an appetite for lifelong learning
Basic skills	Learn to learn
Communication	Oral and formal communication skills
Teamwork	Committed to participate in a group
Critical thinking	Be analytical in their approach
Career development	Ability to focus on goals and career
Leadership	Develop softer leadership skills

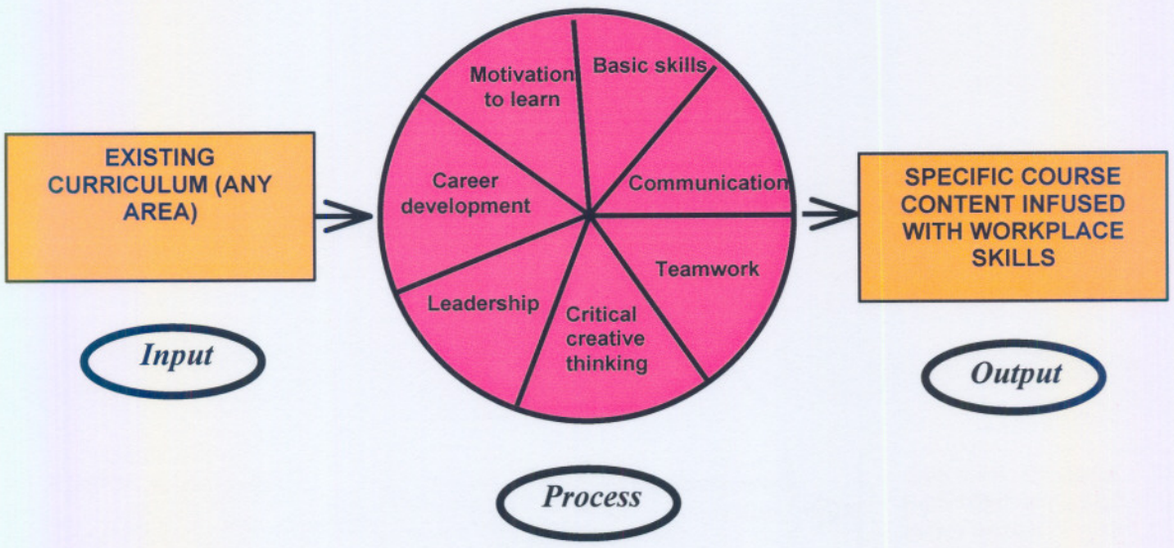
Source: Adapted from (Koffel, 1994:1)

Based on the skills identified by the ASTD study, Koffel (1994:9) developed a workplace skills model. This model can be used by educators at Higher Education Institutions to re-align existing curricula with employer requirements for graduates.

This model is closely related to the seven critical cross-fields discussed in chapter 2. The model utilises existing curricula as an input into the process, where it is infused with the critical skills determined by the ASTD. The output of the model, is the specific course content infused with workplace skills.

The workplace skills model is shown in figure 3.1.

Figure 3.1. Workplace skills model



Source: Koffel (1994:9)

Wilson (2001:192) illustrates the positive side of being a graduate by seeing young people as people who are -

- quick to learn,
- open to new ideas,
- enthusiastic,
- energetic,
- fit and healthy, and
- "on top of" new technology.

These characteristics should convince Higher Education Institutions to continuously upgrade their contents and methods of learning to meet the requirements of world-class employers.

It is important to remember, that although employers are queuing up to get the "best" graduates by offering rich rewards in return; a degree only is no longer a passport to success. Graduates must take into consideration, that several Higher Education Institutions offer qualifications in the same study field. This implies, that quite a number of graduates are available in specific disciplines, but that only a few vacancies are available. Companies can pick the cream of the crop.

Fallows and Steven (2000:76) conducted comprehensive research on the need for a curriculum in higher education to adapt to the demand for employable skills. They emphasise, that when companies recruit graduates, they are typically seeking for individuals who do not possess only specific skills and knowledge, but also who have the ability to be proactive, and to see and respond to problems creatively and autonomously.

The interim report of Australian Department of Employment, Education, Training and Youth Affairs (1998) identified twelve important skills sought in new graduates. These skills are indicated in table 3.2.

Table 3.2: Skills sought in new graduates

SKILL	DESCRIPTION
Academic achievement in a suitable discipline	Knowing the underlying theory
Numeracy	Numerical reasoning ability
Basic computer skills	Understanding of computers and information systems.
Time management	Organising workload and assigning priorities
Written business communication	Improve written communication
Oral communication	Being articulate and a good listener
Interpersonal	Develop interpersonal skills
Team-working	Working as part of a team
Problem-solving	Knowing how to identify and work through problem situations
Comprehension of business processes	Demonstrating an appreciation of business and commerce
Research and analysis	Retrieval and handling of information
Leadership	Taking control when necessary

Source: Adapted from Australian Department of Employment, Education, Training and Youth Affairs (1998)

Research done by Davis and Miller (1996:71) and Hassal, Joyce, Montano and Anes (2001:422), supports the above-mentioned findings, as indicated in table 3.2.

Oblinger and Verville (1998:73-74) conducted an in-depth study in the USA, by investigating what organisations want from higher education. The authors identified six attributes of graduates, as shown in table 3.3.

Table 3.3: Attributes of graduates as defined by Oblinger and Verville

SKILL	DESCRIPTION
Intellect	Ranging from analysis and synthesis to problem-solving.
Knowledge	Ranging from an understanding of the basic principles of a discipline to knowledge of the organisation and commercial awareness; willingness and ability to learn and continue learning throughout life.
Flexibility and adapt-ability	To respond to change and to lead change.
Self-management skills	Self-discipline, ability to deal with stress, prioritisation, planning and an ability to juggle several things at once.
Self-motivation	Ranging from being a self-starter to seeing things through to a conclusion, including such characteristics as resilience, tenacity and determination.
Positive self-image	Including self-confidence, self-awareness, self-belief, self-sufficiency, self-direction and self promotion

Source: Adapted from Oblinger and Verville (1998:73-74)

Zinser (2003:405), also did a case study in the USA and established ten employable skills required from graduates, as shown in table 3.4.

Table 3.4: Employable skills as defined by Zinser

SKILL	DESCRIPTION
Applied academic skills	All students will apply basic communication skills (e.g. reading, writing, speaking), apply scientific and social studies concepts, and perform mathematical processes in word-related situations.
Career planning	All students will acquire, organise, interpret and evaluate information from career awareness and exploration activities, career assessment and work-based experiences, to identify and to pursue career goals.
Developing and presenting information	All students will demonstrate the ability to combine ideas or information in new ways, make connections between seemingly unrelated ideas and organise and present information in formats such as symbols, pictures, schematics, charts and graphs.
Problem-solving	All students will make decisions and solve problems by specifying goals, identifying resources and constraints, generating alternatives, considering impacts, choosing alternatives, and evaluating results.
Personal management	All students will display personal qualities such as responsibility, self-management, ethical behaviour and respect for self and others.
Organisational skills	All students will identify, organise, plan and allocate resources (such as materials and human resources) efficiently and effectively.
Teamwork	All students will work cooperatively with people of diverse backgrounds and abilities and contribute to a group process with ideas, suggestions, and efforts.
Negotiation skills	All students will communicate ideas to support a position and negotiate to resolve divergent interests.
Understanding systems	All students will understand complex systems, including social and technical systems, and work with a variety of technologies.
Use these skills	All students will integrate employable skills into behaviours, which will prepare one for obtaining, maintaining and enhancing employment.

Source: Adapted from Zinser (2003:405)

A study done by Buchner (1999:22), confirms that employers expressed very definite opinions regarding the types of skills that impact on the productivity of entry-level employees. The skills needed, were divided into three categories, namely: basic skills, thinking skills and workplace competencies.

These findings are indicated in table 3.5.

Table 3.5: Skills that impact on the productivity of entry-level employees

BASIC SKILLS	THINKING SKILLS	EMPLOYABLE SKILLS
◊ Reading ◊ Mathematics ◊ Listening/following instruction ◊ Skill or ability to speak/communicate clearly	◊ Problem-solving/ critical thinking ◊ Decision-making ◊ Ability to learn new skills ◊ Understanding graphs and charts	◊ Interpersonal skills ◊ Leadership ◊ Acquiring and using information ◊ Time management ◊ Computer literacy skills ◊ Technical skills specific to the job

Source: Adapted from Buchner (1999:22)

Clarke (1997:17) describes an employable person as being motivated, self-confident, committed, adaptable and flexible. This person is also a team worker and an articulate communicator. The employable person will be an innovator, problem-solver, decision-maker and manager of change. He or she will also demonstrate an appreciation of business and commerce, have a customer-focused approach and a commitment to the highest quality. The employable person will have a strong desire for self-development and will be curious and analytic in his/her approach.

The research done by Davis (1997:73) on job preparation for the 21st century, determines that in a continuing effort to prepare students better for future employment, seven basic workplace skills were identified that should be implemented in the curriculum.

These are indicated in table 3.6.

Table 3.6: Basic workplace skills as identified by Davis

BASIC WORKPLACE SKILLS	COMPETENCIES
Foundation skill	Learning to learn
Competence	Reading, writing, computations
Communication skills	Oral communication and listening
Adaptability	Creative thinking and problem-solving
Personal management	Self-esteem, motivation/goal setting, employable/career development
Group effectiveness	Interpersonal skills, negotiation and teamwork
Influence	Organisational effectiveness and leadership

Source: Adapted from Davis (1997:73)

The generic skills identified by these studies, will be incorporated into the empirical study.

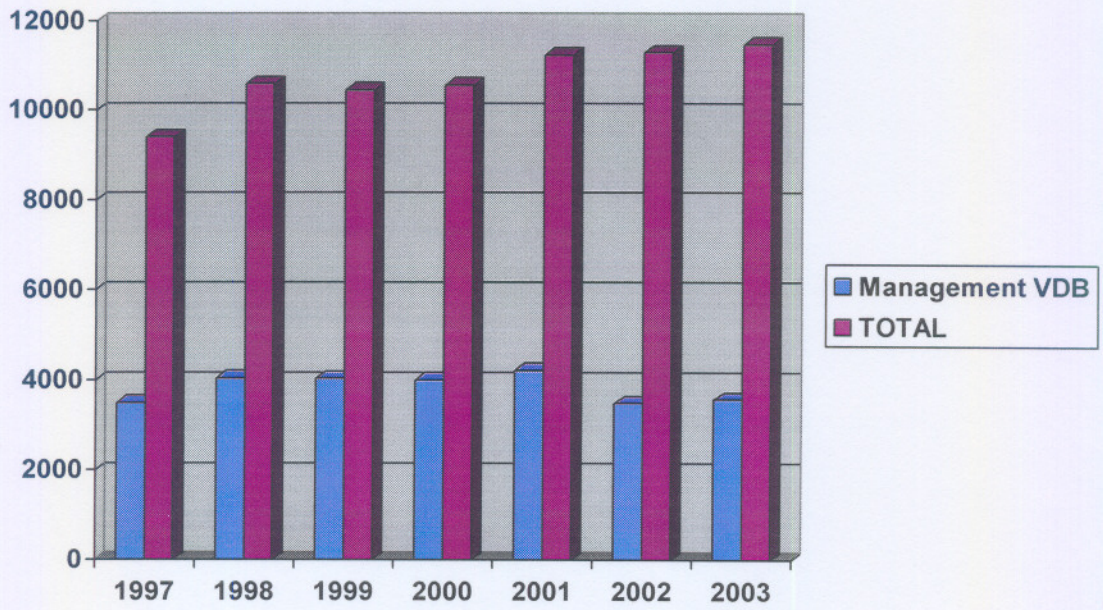
3.3 AN OVERVIEW OF STUDIES DONE TO DETERMINE STUDENT EXPECTATIONS

According to an article in The Education and Training, young people in the UK are unprepared for the world of work. Work placements are a common feature of school and college life, yet institutions are failing to prepare young people for the modern workplace (Anon., 2003: 18).

It is confirmed in chapter two, that various countries realise the importance of employable skills, but that there is a distinct lack of research to prove that the

A further contribution to the problem faced, is the large number of students in the field of management sciences as compared to fields like science, engineering and technology. Figure 3.2 illustrates the number of students in management sciences as compared to the total number of students over the past few years at the Vaal University of Technology (VUT).

Figure 3.2: Student numbers in management sciences at the VUT



Source: Data Processing at VUT (2004)

Figure 3.2 shows the number of students who have enrolled at the Faculty of Management Sciences at the Vaal University of Technology for the past seven years. A closer analysis of this graph, shows the relatively high number of students (prospective employees) who pursue careers in management sciences in comparison with other fields of study. The average enrolment over this period, was 4000, that represents 40 % of total enrolments. Taking into consideration that this graph refers to only one institution, it can be assumed, that the total

that this graph refers to only one institution, it can be assumed, that the total enrolments for the country allow employers to select from a wide spectrum of prospective employees.

Although Smit (2000:10) is of the opinion that only 40 % of university and technikon students complete their studies in the minimum time period, 25 % of the students fail their first year or study and a further 30 % never complete their studies; the total number of graduates is still very high.

Wilson (2001:193) is of the opinion, that young candidates for employment suffer from a lack of work experience, self-reliance skills, patience, political awareness and realistic expectations. As was mentioned in chapter one, this correlates with the researcher's own observation in a class of 47 students following an honours degree in Human Resource Management, who were asked for which positions they would apply on completion of their studies. Only two students indicated, that they would apply for the position of human resource officer, while the rest (45 students) were under the impression, that they could apply for positions of human resource managers. This adds to Wilson's research findings that candidates do not have realistic expectations.

Umlaw (1992:17) states, that graduates enter the business world sufficiently motivated to succeed. Graduates perceive that they are on a clear run to success, because by obtaining a degree, they feel that they have overcome numerous barriers imposed on them. Graduates often labour under the misconception that their qualifications alone will be enough to place them in the higher echelons of management. Unfortunately their education is largely theoretical and the curriculum does not equip them with skills to cope in the workplace. A huge discrepancy, therefore, exists between the graduates' expectations and the reality employers expect of them.

Perrone and Vickers (2003:69) describe the situation that graduates experience, as "inflated expectations". Thousands of graduates undertake the journey to enter the workplace at the end of their studies, with only a few years of higher education behind them and their degree firmly in their hand, but without the much-needed skills that must equip them for the workplace. These studies confirm the researcher's assumption, that a definite gap exists between employer and prospective employee expectations in South Africa.

Kroon and Meyer (2001:48-49) list the following factors that determine career expectations of students at Higher Education Institutions.

- **Education-related factors.** Universities are presently delivering twice as many graduates than was the case ten years ago. It is clear, that Higher Education Institutions are an attractive future option for many young people. Some examples of education-related factors, which could influence career expectations in a positive or negative manner, are the attitudes regarding the value of education in a changing career world, the ability of higher education institutions to prepare graduates for survival in the career world and the extent to which graduates accept responsibility for their own career success.

- **Change management**. The career world in a changing South Africa has been confronted with many changes and as a result of this, the former is changing just as fast. Some examples of these changes are people having six to ten jobs in tow, to three careers during their life. The concept of "a job for life" is no longer relevant. Temporary and part-time employment is increasingly in greater demand than permanent employment and more unemployment as a result of mechanisation, automatisation and computerisation are making certain jobs redundant. More women are entering the career world and

wanting more than just being a housewife and mother. Worldwide communication networks, the use of satellite offices and more employees working overseas, are a reality.

- **Entrepreneurship and entrepreneurship education**. The role of entrepreneurship in the South African economy is still growing. More people are leaving large, bureaucratic corporations for smaller companies where entrepreneurship is emphasized. The shortage of job and promotion opportunities are forcing individuals to create jobs for themselves. The growth of entrepreneurship has important implications for entrepreneurship education. It is important for courses in management and entrepreneurship to satisfy the needs of potential entrepreneurs, by providing them with relevant entrepreneurial and management skills. Entrepreneurship, as an alternative to the shortage of job opportunities in the formal sector, may lead to more positive career expectations.

- **General attitudes about the future.** A student's general attitude about the future has an influence on his or her career expectations. Students who are feeling happy, will more likely experience positive career expectations than those who are only focusing only on the negative side of things. A person's general attitude towards the future, can be influenced by opportunities within society and the extent to which basic needs are met, the availability of opportunities for personal growth and achievement, quality of personal life, success in studies and the extent to which life is dominated by stress and time limitations, contributed towards a person's attribute.

- **Financial factors.** Compensation is probably one of the most important motivators in modern society, because of its extensive

influence on the satisfaction of needs, expectations and standard of living. The most important reason for pursuing a career, is the ability to earn money. This emphasizes, that career expectations are influenced significantly by financial factors. Graduates who enter the career world, evaluate the attractiveness of a new position mainly in terms of the salary involved. Higher salaries can be granted only when accompanied by increased productivity and economical growth in productivity.

- **Career behaviour or qualities required for success.** The extent to which a person can display the qualities required for success, can also have an influence on his or her career expectations. Examples of the qualities required for success, are competitive drive, self-confidence, the desire to achieve success and the willingness to learn. Other important qualities, are the willingness to seize economic challenges; as well as to embrace the challenges of the technological age; positive canalisation of stress; positive thinking; the development of a critical attitude; and the continuous evaluation of career situations.

Falconer and Pettigrew (2003:49-50), state, that graduates leave university with la scant idea of the nature and culture of the workplace and they initially find it difficult to adjust to working life. Their research showed, that in order to meet the challenges posed by the flexible working environment, it is recognised that individuals must accumulate experience and expertise, certainly incorporating professional and technical knowledge, but also more personal skills that can be transferred between organisations and between roles within organisations. The development of working life has been a continually evolving process and some flexibility has always been inherent. This implies, that undergraduates need to prepare themselves for the changing workplace environment and culture.

Falconer and Pettigrew (2003:49-50) conclude, that younger, full-time students, other than those who had had a significant placement experience on their course, left university with very little understanding of the nature and culture of the workplace and initially found it difficult to adjust to working life. Higher Education Institutions must accept their dual responsibility by not only equipping students with theoretical and technical knowledge but also creating a realistic expectation of students and to equip them adequately for their working life.

Students who are attending a career management course at the Victoria University in Australia, are of the opinion, that higher education should play a role in providing students with appropriate career management and employable skills (Miller and Liciarde, 2003:316). Research done by Kelley-Patterson and George (2001:321), quote a graduate's view: "There are gaps in University preparation – universities need to think of practical happenings at work – not just theoretical frameworks."

Hodges and Burchells (2003:19) experience was, that graduates expect too much too quickly and become dissatisfied and negative when they are not given rapid advancement. New graduates often arrive believing they have a good grasp of the working environment, but they often lack real-life experience. Graduates must be able to apply in a practical environment what they have learned at Higher Education Institutions.

Jackson and Prosser (1989:20) summarise the importance of practical application of learning as follows.

> "I hear and I forget; I see and I remember; I do and I understand".

Ahmadi and Helms (1997:57) re-affirm, that the goal of organisations is to get the most work done for the least amount of money and that the goal of the individual, is to get the most money for the least amount of work. Graduates need to have realistic career expectations and should constantly upgrade their skills in order to be valuable assets to any organisation.

Perrone and Vickers (2003:70-71) focus attention on the fact, that much important work has been done about the transition from high school to university. They found, that there is little assistance for graduates to shift from university life to full-time career employment – a transition involving much more than a job search.

3.4 WHICH SKILLS ARE NEEDED TO BRIDGE THE GAP?

Countries from around the world have published reports on the need to prepare students better for the workplace, now and in the future. The distinction between skills shortages and skills gaps has been widely taken up abroad and although known by different names (workplace skills, basic career skills, employable skills, personal transferable skills and career readiness skills), there is general agreement that students must be better equipped to enter the workplace.

The transition form higher education into employment, contributes to graduates' career development and their success as competent employees. Pitcher and Purcell (1998:179) are of the opinion, that the balance of skills and competences of graduates demanded by employers has changed significantly over the past two decades. Higher Education Institutions have, therefore, an important role to play, not only to address the need, but also to forecast future skills requirements. Macun (2000:40) accentuates, that skills planning should ensure that all those involved in skills development, whether an enterprise or an education and

training provider, must think ahead and make decisions based on information about likely market trends.

Graham and Krueger (1996:60) argue, that the more reality that can be brought into the classroom, the better will be the students' understanding of the business world. Higher Education Institutions must determine which transferable skills will be of value to the employer, as well as to the employee.

Teik (2002:21) is of the opinion, that when fresh graduates have strong basic fundamentals, they will be able to learn and pick up new technologies even as they evolve. Good quality training at Higher Education Institutions is not just the craftsman skills or skills set, but more importantly, building the right attitude, having a strong foundation and the ability to create knowledge. A graduate possessing these skills and competencies will not only be an asset to the company, but will also be able to compete in a global environment.

For the purpose of this study, the last category, namely employable skills, will be expanded on. Buchner (1999:22) was not the only author emphasising the need for employable skills. Although different authors expect different competencies from graduates, these different competencies will be discussed, in order to determine the real need employers have regarding graduates' employable skills.

The purpose of this study, is to compile a generic model for students at Higher Education Institutions following a course in management disciplines. This implies, that there will still be a need for discipline-specific skills. The model will, therefore, serve only as a basis to compile a programme. The researcher is of the opinion, that students must not only be skilled and be employable for the South African market; the curriculum must also make provision to guide students to become world-class employers. In order to compile such a model, the need of

industry and the curricula offered at Higher Education Institutions, must meet one and complement one another.

Anderson (1999:2) stresses the fact that lecturers lack awareness of what is happening in the real world of work and their knowledge is either esoteric or out of date. The researcher has become aware of differences amongst institutions regarding their level of awareness. Some institutions feel that their students are adequately prepared for the world of work, while other institutions admit that they need to address this gap.

South Africa's capacity to absorb new recruits into the formal labour market, has fallen from approximately 62 percent to less than 4 percent in three decades, compelling school-leavers, graduates and the unemployed to look towards self-employment for survival and sustenance (Davies, 2001:32). According to Bird (2000:21), people with fewer skills are in abundant supply and not scarce at all. Meyer (2001:3) highlights the fact, that in the modern business environment, companies are forced to approach the way they conduct business activities with greater external focus. Not only are business partnerships extended across regional, national and continental borders, but also international standards are increasingly becoming the norm. This trend has major implications for the workplace and human resources need to be developed in order to acquire and foster the acquisition of knowledge and skills towards functioning effectively in a global business environment.

Cardiff University explains employable skills as follows on its web page: "Your employable appeal is; the vital combination of skills, attributes and experience together with your academic achievements. It is a measure of how attractive you are to your customers – the employers in the graduate marketplace (Anon., available on the internet; date of access: 7 February 2003).

The following literature will discuss the seven employable skills gathered from the literature study. Each skill will consist of several competencies that will address the employable skills need. The researcher, after an exhaustive literature study, informal discussions with representatives from industry and collaboration with academic colleagues concluded, that six definite employable skills exist. These skills are listed separately and are contained in the questionnaire.

3.4.1 Job-seeking skills

The first step in entering the workplace, is to apply for a position. Although no literature is available on this outcome, regular feedback from employers convinced the researcher, that students lack the necessary knowledge to apply for a position. With more than 600 000 students entering higher education every year, the question can be asked as to who is going to be employed after graduation? The researcher already emphasised, that companies expect return on investment and, therefore, want to appoint the best graduates.

An employer's first contact with a prospective employee is by means of a Curriculum Vitae submitted to the company. Human Resource Officers indicated, that candidates' Curriculum Vitae must distinguish him/her from 300 or more applicants. The following competencies were, therefore, identified to be important when applying for a position.

- Compiling a professional Curriculum Vitae.
- Applying for an applicable position.
- Writing a cover letter.
- Adding certified copies of relevant documentation.
- Following dress code.
- Compiling/Presenting a portfolio of evidence.
- Completing an application form.
- Having interview skills.

In an oral discussion with Du Plessis (2004) and Mordaunt (2004), Human Resource officers, the following information was given regarding job-seeking skills. Both interviewees felt that the Curriculum Vitae of prospective candidates were well-presented. Graduates elaborate on academic qualifications, but do not submit information on any experience. Although graduates applying for the first time do not have any formal experience, they can discuss additional information regarding committees served on, special assignments or projects participated in and casual work done. References are also not credible, because friends and family are used. Du Plessis is under the impression, that a Curriculum Vitae is done by an agent or company, because of the similarity of the format and the fact that the cover letter accompanying the Curriculum Vitae, is handwritten. Qualifications and relevant documentation are not certified although candidates indicate that original documentation will be submitted during the interview.

Candidates are well-dressed during the interview, creating a good impression. Unfortunately the same can not be said about their interview skills. Du Plessis (2004) is of the opinion, that one out of six graduates can apply their theoretical knowledge in practice during the interview. Graduates did little or no research regarding the position they are applying for. They are not well-prepared for the interview and elaborate on unnecessary information. Graduates must learn to sell themselves during an interview and be well-modulated when answering questions.

Portfolio of evidence, sometimes called profiles of records of achievement, should get students reflecting on their achievements; collecting and presenting supportive evidence, identifying and then acting on priorities for development (Knight and Yorke, 2003:5).

3.4.2 Academic Skills

Davis and Miller (1996:74) developed seven basic employable skills and are of the opinion that a foundation skill is learning to learn. Newton (2001:34) adds to this statement, that in today's society, one must actively pursue the goal of life-long learning. The following are important concepts and activities.

- Applying scientific and social studies concepts.
- Performing managerial processes in work-related situations.
- Simulating information.
- Interpreting information.
- Presenting information in an acceptable format.
- An ability and willingness to learn.
- Analytical thinking.
- Conceptual thinking.
- Demonstrating the ability to combine ideas or information in new ways.
- Making connections between seemingly unrelated ideas.
- Organising ideas.
- Presenting information in different formats.

3.4.3 Personal/career management skills

Career management is a process by which individuals develop awareness about their own strengths, weaknesses, values and interests, and where they identify goals and opportunities and establish plans for the achievement of these goals. Career management is important from both the employees' and the company's perspectives. From the company's perspective, the failure to motivate employees to plan their careers, can result in a shortage of employees to fill open positions, lower employee commitment, and inappropriate use of monies allocated for training and development programs. From the employees' perspective, lack of

career management can result in frustration, feelings of not being valued in the company, and being unable to find suitable employment, should a job change be necessary, due to mergers, acquisitions, restructuring or downsizing (Noe, 2002:366).

Farmer and Campbell (1997:129) argue, that the workplace of today is in a state of perpetual change and that individuals across the professions are faced with economic cutbacks, managerial reorganisation and staff downsizing. In order to cope with/adapt to these changes, professionals have been forced to consider the issue of continuing professional development while paying particular attention to the following:

- Acquiring, organise, interpret and evaluate information from career awareness.
- Do career assessment.
- Identify and pursue their career goals.
- Energy and passion.
- Achievement orientation.
- Continuous learning: The need to develop the ability to learn throughout their adult lives (Clarke, 1997:183).
- Positive attitude towards work: Acting responsibly and taking even the smallest tasks seriously (Sitley, 2000:16).
- Adaptability.
- Motivation.
- Enthusiasm.
- Responsibility.
- Self-image.
- Initiative.

3.4.4 Interpersonal Skills

Interpersonal skills can be defined as the ability of dealing effectively with the emotional reactions of others, having smooth interaction with others and having positive relationships with people (DuBrin, 1997:2). Knowing how to work with others is critical – personally as well as professionally (Oblinger and Verville, 1998:83). The following qualities must be considered.

- Self-confidence.
- Interpersonal understanding.
- Self-control.
- Initiative.
- Flexibility.
- Assertiveness.
- Time management.
- Stress management.

3.4.5 Work Ethics

The study of ethics is the study of human action and moral adequacies. Business ethics is the study of business action – individual or corporate - with special attention to moral adequacy (Goodpaster, 1998:51).

Hill and Petty (1995:10) and Alberts (2001:257) argue, that educators should seek ways to embed consideration of work ethics throughout the instructional program. Research done by Alberts (2001: 276), s that South Africa has unique circumstances ad phenomena regarding workplace ethics, e.g.:

- bribery, theft, white-collar-crime, corruption, fraud and deterioration of business behaviour;
- social decline, decline in moral values and the need to restore ethical standards in society;

- the management of diversity and the general lack of knowledge regarding ethical decision-making and ethical behaviour in businesses;
- the degree of ignorance regarding workplace ethics in South Africa.

Research identified the following competencies and characteristics to be of importance for business and industry.

- Awareness of ethical responsibilities.
- Honesty.
- Integrity.
- Punctuality.
- Conscientiousness.
- Respecting of others' rights.
- Not to not lie or cheat.
- Obeying the law.
- Keeping promises and honouring contracts.

When ethics is applied to business, consideration must be given to the implications of economic activity on the interest of all who are part of such activity (Rossouw, 2002:4).

3.4.6 Computer Literacy

Contemporary computer literacy for the 21st century and beyond, is clearly the ability to utilise appropriate technological tools in an information society. The personal computer and its associated technological innovations – the Internet, e-mail, word-processing packages and personal Website – have become commonplace. Current industrial standards demand skilled workers who are fluent in the use of these technological tools. Often, the higher education professorate assumes responsibility for transferral of many of these technological

skills to students who ultimately become society's newly-skilled workers (Evans, 1999:102).

Computer literacy is defined by Hutchinson and Sawyer (2000:1.3,1.4), as possession of sufficient knowledge and understanding of how computers work and what a computer is capable of, whereas computer competency leads to skills that provide the user with the ability to operate a computer effectively. This implies, that a user becomes computer literate by learning specific terminology, concepts and skills.

Charp (1997:6) is of the opinion, that the spread of computers in the workplace, is wiping out job opportunities for unskilled workers. Although computers have created more jobs than they have destroyed, employers have used computer-based technology to eliminate unskilled jobs and have not given displaced workers the training they need to move into new, high-skills jobs. This situation caused that industry and education needs to better understand how to work together and to join forces to help win the increasingly competitive race for technology jobs.

Davis (1997:75) conducted a survey in order to determine the computer skills employers expect from recent graduates and determined the following five skills of varying importance:

- Creating documents and multimedia.
- Working with computer programs.
- Managing databases.
- Manipulating numeric data.
- Computer networks.

Several of the respondents remarked, that the questionnaire was difficult to fill out, since they recruit for different positions in various departments and,

therefore, the researcher decided to evaluate the following competencies important for students following a management discipline, namely:

- Word-processing e.g. MS Word
- Spreadsheet e.g. Excel
- Powerpoint
- Internet
- E-mail

Davis (1997:74) focuses attention on the university's responsibility to equip graduating students with the skills necessary to thrive and to lead in a rapidly changing technological environment. Meanwhile, corporate leaders are putting more emphasis on recruiting individuals with an understanding of computers and information systems.

3.5 CONCLUSION

The need for employable skills is a reality. Employers expect, that graduates will possess certain skills after completing their qualification at Higher Education Institutions. Due to the oversupply of qualified graduates in the field of management sciences, employers are in the favourable position to select the best candidates. However, academic or subject knowledge alone, is not enough in world-class companies who compete globally. The purpose of this chapter, is to prove that graduates lack certain employable skills that consist of different competencies.

Chapter four will focus on the empirical part of the study. Statistical analysis will be conducted and the chapter will aim to prove the reliability and validity of the study.

CHAPTER 4

RESEARCH METHODOLOGY RELATED TO THE STUDY UNDER INVESTIGATION

4.1 INTRODUCTION

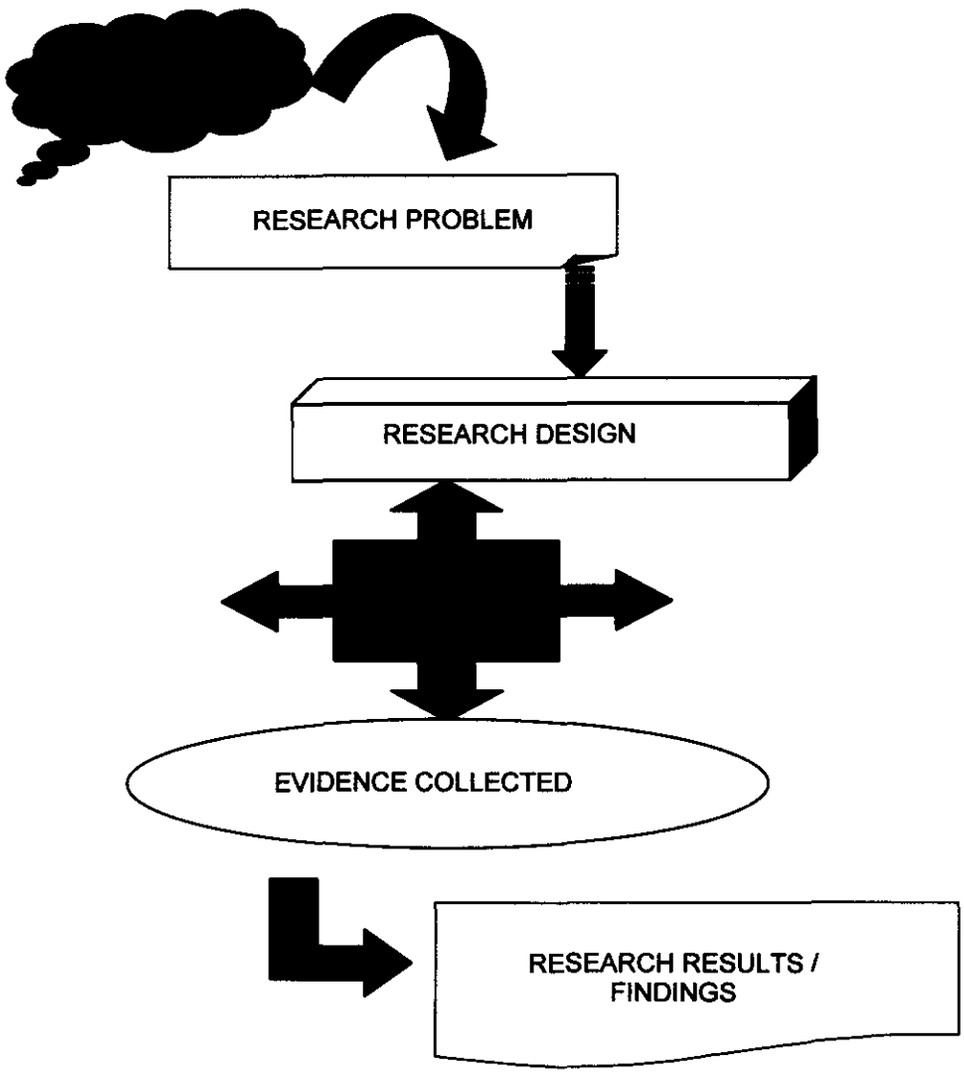
The aim of this chapter, is to provide a detailed and adequate insight and understanding of the basic methodological techniques and methods used during the study. The application and purpose of the research method, is described and an overview of the procedures for statistical analysis is provided.

In the previous chapters, a theoretical framework regarding the employable skills and concepts that will add insight into the research, was made possible by an intensive literature study that captured the essence and most important views on the topic being researched. The information gathered and discussed, serves as a basis for the questionnaire survey conducted.

Babbie and Mouton (2003:72) explain science as an enterprise dedicated to "finding out". No matter what you find out, though, it is likely there will be many ways of doing it. This statement can also be applied to the research process.

Various methods are available but the researcher would like to explain the research done, by using figure 4.1. The figure indicates, that the researcher gets an idea regarding the research topic. The research problem is then formulated as based upon this idea, research design is identified, the research process followed, evidence collected and the findings reported.

Figure 4.1: The research process



Source: Babbie and Mouton (2003:72)

4.2 RESEARCH METHODOLOGY DEFINED

Before the technical and academic details of the research methodology are discussed, the two concepts, "research" and "methodology" require clarification.

Research is defined by Miller and Brewer (2003:1), as a process of generating/deducing research propositions (hypotheses) from abstract theory and concepts that are then tested by empirical observations (research). Gillham (2003:2) gives the simple explanation, that research is about creating new knowledge, whatever the disciplines.

The raw material of research is evidence, which then has to be made sense of. Laws, Harper and Marcus (2003:7) refer to research as being a wide range of activities; some very rigorous and technical; some quite small scale and simple, that involve the collecting of new information in a systematic way.

Bak (2004:3) defines research as an activity that falls essentially in the public domain. The kinds of issues being researched, the ways in which they are addressed and investigated, and the dissemination of the findings, are all embedded in shared practices of the discipline in which the research is done. Welman and Kruger (2000:2) link all these definitions together and define research as the process in which scientific methods are used to expand knowledge in a particular field of study.

Methodology is defined by Welman and Kruger (2000:2) as the application of various methods, techniques and principles in order to create scientifically obtained knowledge by means of objective methods and procedures within a particular discipline. It is important to realise, that different studies will use different methods or techniques because they have different aims. The methods must be appropriate for the tasks. Hart (1998:13) explains methodology as the ability to show the appropriateness of the techniques used to gather data and the methodological approaches employed.

Research methodology can, therefore, be defined as the specific methods one uses to collect and analyse data (Leedy and Ormrod, 2001:93). The research

methodology focuses on the research process and the kind of tools and procedures to be used (Lategan, Vermeulen and Truscott, 2003:23).

4.3 THE RESEARCH PROBLEM

The research problem is seen as the heart of the research process (Leedy and Ormrod, 2001:51). It is thus important to articulate the specific problem that is under investigation.

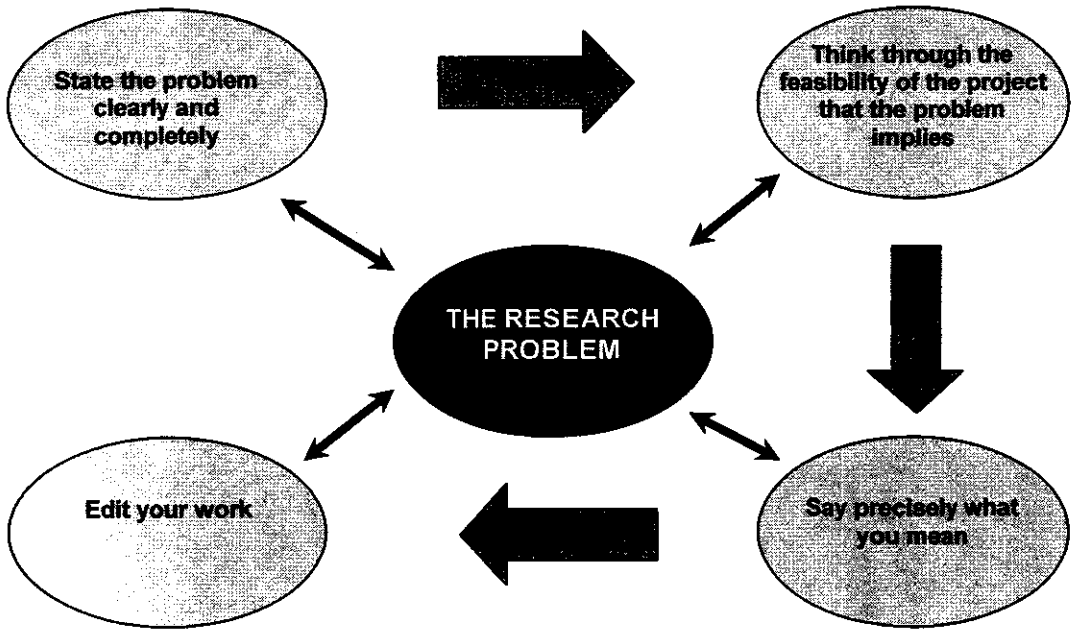
The problem is the engine of the thesis – it drives various sections, directs the discussion towards the destination that the researcher would like to reach, and informs the way the thesis will be developed. The research problem is typically described in the problem statement (Bak, 2004:20). Furthermore, Bak (2004:20) emphasises, that the problem statement must capture the essential focus of the thesis, and it is therefore, important that the researcher spends time on formulating a clear, focused and interesting academic problem that is researchable.

According to Babbie and Mouton (2003:103), the problem statement should answer the following questions.

- What exactly do you want to study?
- Do you wish to explore a new terrain or describe existing phenomena in more detail?
- Do you want to evaluate an existing programme?
- Do you want to do a needs assessment study for the development of a new intervention?
- Does the proposed study have practical significance?
- Does it contribute to the construction of for example, social theories?

Adapted from Leedy and Ormrod (2001:52-54), figure 4.2 indicates the steps to be followed to formulate the research problem and to get off to a strong start.

Figure 4.2: Steps to formulate the research problem



Source: Adapted from Leedy and Ormrod (2001: 52-54)

The steps that should be taken to formulate the research problem are clearly indicated in figure 4.2. These steps can be explained as follows.

- **State the problem clearly and completely**. The problem must be clearly stated and easy to understand. If the problem is not stated with clarity, the researcher is deceiving him/herself.

- **Think through the feasibility of the project that the problem implies.** Researchers sometimes rush into a problem without thinking through its implications. It is easy to have ideas, but it is much better to

have practical ideas. The researcher must always ask the questions set above so as to determine whether you are on the right track or not.

- **Say precisely what you mean.** When stating the problem, one cannot assume that others will be able to read your mind; therefore, the researcher has to say exactly what is meant with the statement.

- **Edit your work.** Editing almost invariably improves one's thinking and one's prose. Clarify vague statements and eliminate unnecessarily wordy phrases.

To determine whether one's research has been successful, the problem statement will serve as a guideline for one's findings and the ideal is, that the problem will be positively solved.

The problem statement, as specified in section 1.3, is to develop a model that will address the need for employable skills sought by employers.

Products from Higher Education Institutions should be flexible enough to be able to adjust to changes and to utilize their academic knowledge to deal with everyday practical problems.

Therefore, it is important that Higher Education Institutions prepare and equip students to cope with the compelling challenges generated by a highly competitive global economy, of which South Africa now is an integral part.

4.4 RESEARCH OBJECTIVES

4.4.1 Primary objective

The primary research objective, is to develop a model that will address the most important employable skills identified by employers, which are not addressed in the curricula at Higher Education Institutions.

4.4.2 Secondary objectives

The following secondary objectives support the primary objective.

- Conducting a literature study regarding the importance of employable skills for prospective employees in a world-class milieu.
- Identifying employable skills required by employers.
- Developing a model to address the most important competencies identified by employers.
- Providing recommendations relating to the design and contents of an employable skills model for ongoing research.

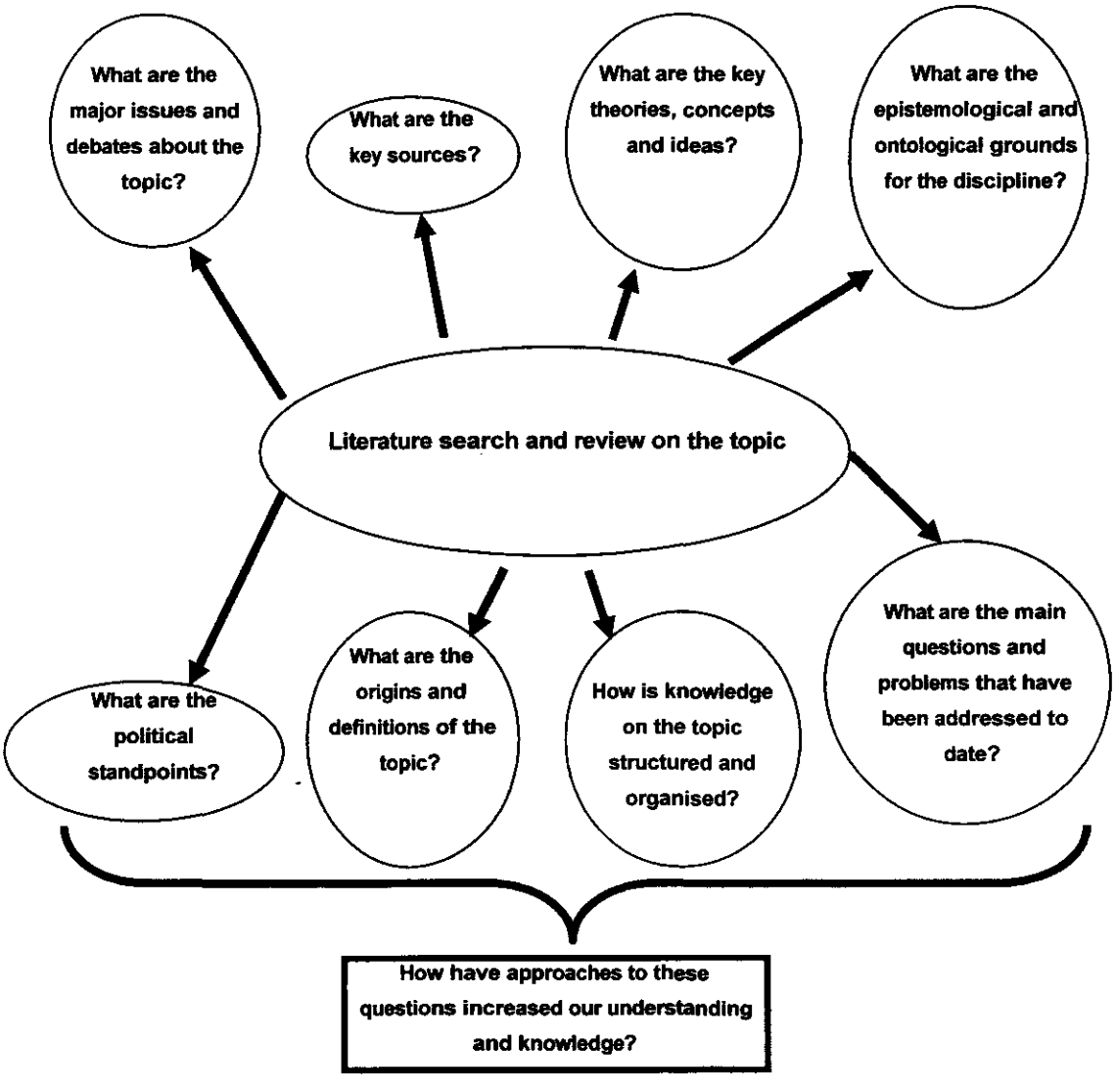
4.5 THE RESEARCH DESIGN

4.5.1 Literature study

Hart (1998:13) defines a literature study as the selection of available documents, both published and unpublished, on the specific topic. These contain information, ideas, data and evidence written from a particular standpoint. The objective is, to fulfil certain aims or express certain views on the nature of the topic, how it is to be investigated, and the effective evaluation of these documents in relation to the research being proposed.

The review of related literature is an essential part of the research process and the research report. Figure 4.3 shows some of the questions that the researcher will be able to answer by undertaking a literature review on the research topic.

Figure 4.3: Questions to be answered by the literature review



Source: Adapted from Hart (1998:14)

Welman and Kruger (2000:35) highlight the fact, that the literature review should not consist of a mere compilation of separate, isolate summaries of the individual studies of previous researchers. The researcher should clearly show how these studies relate to one another and how the proposed research ties in with them; this is often referred to as the golden thread. The most glaring blunder in this connection, is to present the opinions or findings of different authors, who basically are in agreement, but who have expressed themselves in different ways, as different contributions.

The literature sources used are divided into primary and secondary sources.

- **Primary sources** constitute the written or oral accounts of a direct witness of, or a participant in an event; or an audiotape, videotape of photographic recording of it. This would then represent first-hand evidence of what happened (Welman and Kruger, 2000:36).

- **Secondary sources** provide second-hand information about events. Such a source has not witnessed the events himself or herself, but has obtained the information from someone else who did experience the event (Welman and Kruger, 2000:36).

When comparing the definitions of primary and secondary sources, it is obvious that original sources have to be consulted as far as possible.

The identification of the employable skills needed by students before entering the workplace, formed part of the literature study conducted. Various articles were published overseas, but the same can not be said from South Africa. A few articles mentioned the need for employable skills, but little information i.r.o. what determined the specific skills required for the South African labour market.

The limited availability of suitable literature would have made it impossible to develop a meaningful model without combining the literature study with an empirical study.

4.5.2 Empirical study

This study utilises both quantitative and qualitative research methods upon which the findings are based.

Quantitative research is concerned with measuring aspects of a market, or the population of consumers who make up the market. In most cases it is based on more or less rigorous sampling and data collection methods (Hague and Jackson, 1999:82).

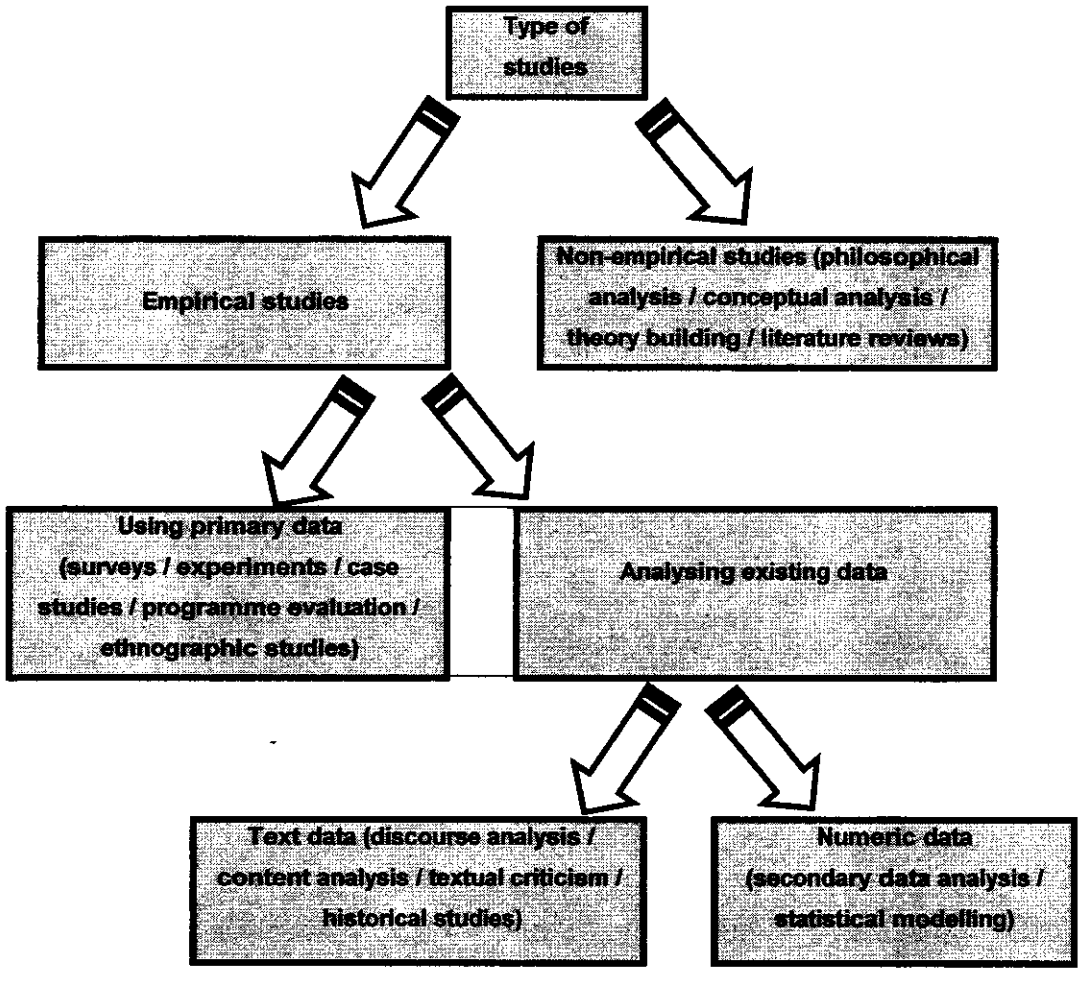
Quantitative research can, therefore, be regarded as descriptive, which is the opposite from qualitative, which is regarded as interpretive (Locke, Silverman and Spirduso, 1998:123). Quantitative research consists of research that involves formal questionnaire techniques at some stage. Therefore, a quantitative research method that would enable the researcher to measure the identified variable in this study, was used to obtain the exact data required for the research. Questionnaires were sent to employers who employ Vaal University of Technology graduates.

The researcher made use of unstructured interviews. According Welman and Kruger (2000:196) an unstructured interview is usually employed in explorative research to:

- identify important variables in a particular area;
- formulate penetrating questions; and
- generate information for further investigation.

The researcher had several in-depth interviews at the beginning of the research to determine if a need for employable skills existed. This method is described as qualitative research and is seen as a non-empirical study. Figure 4.4 gives an easily understandable graphic explanation of an empirical study:

Figure 4.4: Structure of an empirical study



Source: Babbie and Mouton (2003: 78)

The nature of the study allowed the researcher to conduct an empirical study by using primary data. A questionnaire was designed and the information received from the respondents, was used to develop a model.

4.5.2.1 Target population

The target population is a clearly defined group of entities that have some characteristics in common (Boyce, 2002:232).

The research was undertaken at the Vaal University of Technology (VUT), an Institution of Higher Education. The VUT has a main campus situated in Vanderbijlpark and four satellite campuses situated in Secunda, Kempton Park, Klerksdorp and Upington. The four satellite campuses were not included, because they are in other provinces, except for Kempton Park.

It is important to select a representative target population who employ graduates from the Vaal University of Technology. The two options were:

- partners in industry and
- advisory committee members.

A list from partners in industry was obtained from the Department: Corporate Education at the VUT. The representatives in the Gauteng region were identified and the questionnaires were distributed to them.

The list did not have all the companies' electronic mail addresses and the questionnaires were faxed or hand-delivered to those respondents who were not electronically available.

4.5.2.2 Sample

After defining the target population, the researcher has to assemble a list of all eligible sampling units, referred to as the sampling frame.

A sample is a portion or set of a larger group called a population. The population is the universe to be sampled (Fink, 1995:1). The researcher made use of a non-probability sampling method. Non-probability samples are created, because the units appear representative or because they can be conveniently assembled. The method is described as convenience sampling, which is a group of individuals that are readily available (Fink, 1995:23).

Since the sample size formulas cannot appropriately be used for non-probability samples, the determination of the necessary sample size is usually a subjective, intuitive judgement made by the researcher, based on past studies of the number of resources available (Zikmund, 2000: 519). Churchill and Iacobucci (1998:521) also asserts, that in non-probability sampling, one of the methods used by researchers, is to determine the sample size used by similar studies in the past, e.g. the historical evidence approach. Table 4.1 indicates related research undertaken.

Table 4.1: Related research undertaken

RESEARCH	RESEARCHER	SAMPLE SIZE	COUNTRY	YEAR
The education-business partnership	Vinten G.	55	UK	1996
Achieving necessary skills	Holter, N.C. and Kopka, D.J.	27	USA	2001
Business graduate competencies	Hodges, D and Burchell, N.	154*	New Zealand	2003
Survey on employability	Clarke, A.	40	London	1997

* Non-targeted participants

Source: Vinten 1996:30), Holter and Kopka (2001: 143), Hodges and Burchell (2003:19), Clarke (1997:177)

The data for this study were collected over a two-week period in June 2004. The sample group was composed of 46 companies who are industry partners listed by the Department of Co-operative Education at VUT. All the companies are in the Gauteng Province. The researcher included the advisory committee members as well.

An advisory committee member is a representative from industry, that advises the different departments, as shown in figure 1.2, on changes and needs in industry. The Faculty of Management Sciences has 33 people who served on the various departmental advisory committees. Seventy-nine (79) employers received the questionnaire and 56 completed questionnaires were returned. The response rate was 70,9 %.

4.5.2.3 Measuring instrument

(a) Questionnaire design

The measuring instrument utilised in this study, is a 'serve' questionnaire designed by the researcher. According to Lategan, Vermeulen and Truscott (2003:41), the questionnaire serves many 'masters', namely research purpose, respondent, data capturer, analyser and so forth and must adhere to the following guidelines.

- Keep the questions, instructions and whole questionnaire short and to the point.
- Provide clear instructions – general and/or per question (remember to have a "not applicable" where relevant, and to state whether one or at most, so many choices are allowed).
- Align the vocabulary and style of the questions to the target population.
- Avoid ambiguity, confusion and vagueness.

- Avoid emotional, leading, discriminatory and biased questions.
- Avoid double-barrelled questions – there should be unique or distinct possible answers.
- Avoid questions beyond the respondent's capabilities, or memory span.
- Avoid questions that might lead to predictions or guesswork and avoid double negatives.
- Pay attention to question layout – order and position of biographical and sensitive questions are important - logic flow of questions. Also consider appearance in the physical layout.

Single-answer attitudinal questions were used in the questionnaire, because these allowed the respondent to pick only one response from the list provided (Kent, 1993:65). Attitudinal questions are normally used in image and attitude surveys and customer satisfaction surveys, when information is sought, such as what people think and their image and ratings of things (Hague and Jackson, 1999:116).

The following questions were asked in order to determine whether the content of the individual questions was appropriate (Boyd, Westfall and Stasch, 1981:99; Crimp and Wright 1995:148), namely:

- Is the question necessary?
- Does the respondent have the information requested?
- Is the point within the respondent's experience?
- Can the respondent remember the information?
- Will respondents give the information voluntarily?
- Are several questions needed instead of one?

The researcher followed the mentioned guidelines and compiled a questionnaire.

(b) Format of questionnaire

The questionnaire consists of three sections. The three sections are as follows:

Section A included several bibliographical questions that focus on the respondent's -

- position within the organisation;
- age;
- gender;
- highest qualification; and
- industry group they represent.

Section B was used to validate whether employers are of the opinion, that graduates possess the seven critical cross-field outcomes. As mentioned earlier, the researcher is of the opinion, that a model to address employable skills cannot be created if the core of the curriculum is not correctly implemented. The following scale is used:

- 1 = No satisfaction
- 2 = Some satisfaction
- 3 = Reasonable satisfied
- 4 = Satisfied

Section C was used for collecting information regarding graduates' employable skills. The questions were divided into seven skills. Each skill was supported by several competencies. Questions pertaining to the overall assessment of each skill are asked and each skill, is measured on the following scale:

- 1 = Total disagreement
- 2 = Some disagreement
- 3 = Reasonable agreement
- 4 = Full agreement

The Likert Scale is used in Sections B and C, to indicate the respondent's option. The Likert Scale, according to Welman and Kruger (2000:155), can be described as a scale that consists of a collection of statements about the attitudinal object. In respect of each statement, respondents have to indicate the degree to which they agree or disagree with its content, as previously explained.

Section C consists of 62 questions. All the questions were close-ended questions and the seven skills identified, were the following.

- Job-seeking skills
- Academic skills
- Personal/career management
- Interpersonal skills
- Work ethics
- Computer literacy
- Relationship in the work context.

Lategan, *et al.*, (2003:39) are of the opinion, that the object of a survey is to clarify what you want to learn, about who, from whom and for what purpose; the secret also lies in KISS – keeping it short and simple. The researcher must focus on the "need to know" and not the "nice to know". The researcher is of the opinion that these principles were adhered during the compiling of the questionnaire. A cover letter accompanies the questionnaire (Annexure B).

4.5.2.4 The pilot study

Regardless of the experience and expertise of the designer of the questionnaire, pre-testing should be undertaken in order to ensure that the questionnaire communicates the information correctly and clearly to the respondents.

According to Kent (1993:85), the piloting of questionnaires is frequently short-changed by researchers; however, it is essential for a successful survey and critical for successful research. Litwin (1995:60) says, that pilot testing allows the author a chance to correct possible errors, before the survey is mass-produced or used on a wider scope, to gather real data. It allows the author the time and opportunity to redesign problematic parts of the survey, before it is actually used. Pilot testing also predicts difficulties that may arise during subsequent data collection that might otherwise have gone unnoticed. At this early stage, most problems are still correctable. Therefore, pilot testing is a necessary and important part of survey development. It provides useful information about how one's survey instrument actually performs in the field. Although it requires extra time and energy, the pilot test is a critical step in assessing the practical application of the survey instrument.

The aim of pre-testing, was to affirm that the questionnaire captures the information sought by the researcher. Arising from of the literature review and discussions with human resource managers, the questionnaire was developed. Pre-testing was undertaken by screening the questionnaire with fellow researchers. The necessary adjustments were made after discussing problems arising and shortcomings evident in the questionnaire. The questionnaire was then distributed for a pilot study.

(a) First pilot survey

The first pilot survey was done by using a sample of (n = 32) employer representatives. The aim was, to test the relevance of the competencies, as identified, and to allow for an opportunity to make final adjustments to the questionnaire in order to reduce the misunderstanding and misinterpretation of the questions and to establish the clarity thereof. Furthermore, questions that had very little bearing on the aspects under consideration, could be eliminated.

Thirty-two employers (n = 32) were requested to complete the questionnaire and to indicate whether any questions seemed ambiguous to them, and to comment on other points that might need to be considered in order to improve the instrument. Respondents were also asked how long it took to complete the questionnaire. Twenty-eight questionnaires (28) were returned. Thereafter the results were checked and the suggestions made by the respondents, to improve the questionnaire taken into consideration (Annexure A).

Emphasis was placed on the time it took to complete the questionnaire. In this regard, seventy-two (72) questions delivered the desired result as it took, on average, only six minutes to complete. The time span did not lead to frustration on behalf of the respondents.

Twenty-eight respondents (n = 28) who took part in the pilot testing, responded, which represented a response rate of 87,5 %. The data were analysed and the 72 questions in section C were condensed to 41 questions. Minor changes were made to sections A and B.

The pilot survey allowed the author to correct the errors and to consider comments from the respondents, before the survey was used on a wider scale in order to gather real data. It allowed the author the time and opportunity to redesign problematic parts of the survey, before it was actually used. The pilot survey also predicted difficulties that arose during subsequent data collection, that might otherwise have gone unnoticed. At this early stage, all problems were still correctable. Therefore, the pilot test was a necessary and important part in the survey development.

(b) Second pilot survey

The revised questionnaire was used for a second pilot study (Annexure C). The questionnaire was distributed to thirty-five respondents (n = 35), other than those

respondents in the first pilot survey. Twenty-four respondents (n = 24) who took part in the second pilot testing, responded, which represented a response rate of 68,6 %. No specific changes were made to the questionnaire. The data were analysed statistically and the results showed, that the validity and reliability of the measuring instrument were acceptable.

4.5.2.5 The data collection process

The questionnaires were sent via e-mail to respondents whose e-mail addresses were available. A few of the questionnaires were distributed by hand, for example, to some of the advisory members who regularly have contact with the institution. Respondents completed the questionnaire in their own time at their own place. The reason for using this method, is based on the fact, that respondents are more observant and will give valuable information when they do the evaluation in a familiar environment (Dabholkar, 1994:29).

4.5.2.6 Response rate

Fink (1995:69) describes response rate as the number who respond, (numerator) divided by the number of eligible respondents. All surveys hope for a high response rate. No single rate is considered the standard. The response rate can be calculated by applying the following formula.

$$\textit{Response rate} = \frac{\textit{Number who responded}}{\textit{Number eligible to respond}}$$

Seventy-nine (79) employers received the questionnaire and 56 completed questionnaires were returned. A response rate of 70,9 % was received.

4.5.2.7 Statistical analysis – overview

The following statistical methods in the STATISTICA programme were used on the empirical data set, namely:

- Reliability analysis
- Validity analysis
- Descriptive analysis
- Factor analysis.

The general purpose of factor analysis is to summarise the information contained in a large number of variables into a smaller number of factors.

4.5.2.8 Validity and reliability for research

Reliability is defined by Trochim (1997:2) as the extent to which the measurement process is free from random error, and that it is concerned with consistency, accuracy and predictability of the actual research findings.

(a) Methods to ensure validity

Validity is defined as actually measuring what we attempt to measure (McDaniel and Gates, 1998:56). Although the word "validity" generally denotes the condition of being true, researchers use it with regards to two different aspects of their investigation, i.e. internal and external validity. Internal validity is internal to a study and is concerned with whether the research has been designed so that it truly deals with what is being examined.

Key questions with regards to internal validity are the following.

- Can the data collected actually be used to answer the question?
- Do the findings reveal the truth about the question posed in the study?

External validity is concerned with the external question of whether or not the results will remain valid, when subsequently applied to situations outside the original investigation. The question here is: "Do the findings reveal the truth about these questions when they are situated outside the study?" (Locke, Silverman and Spirduso, 1998:117).

Content validity was established when the performance of the survey instrument in this research project, namely the questionnaire, was determined. Content validity is a subjective evaluation, where a number of knowledgeable reviewers determine the appropriateness of the items. The assessment of content validity typically involves an organised review of the survey's content, so as to ensure that it includes everything it should, and that unnecessary or inappropriate items are excluded. Content validity is not quantified with statistics. Instead, it is presented as an overall opinion of a group of trained judges. Strictly speaking, it isn't a scientific evaluation of the accuracy of the survey instrument. Nevertheless, it provides a good foundation on which to base a rigorous methodologically assessment of a survey instrument's validity (Litwin, 1995:35).

(b) Methods to ensure reliability

With reliability, the question is whether the instrument collects data in a consistent manner (Locke *et al.,* 1998:119). Reliability, therefore, sets the limits of validity. In other words, the accuracy of measurement is limited by

the consistency of measurement. A questionnaire has to be consistent for it to be accurate (Dodge, Fullerton and Rink, 1982:148). Reliability testing of items and scales provides quantitative measurements of how well an instrument performs in a given population. In the development of a new survey instrument, it is imperative to test it for reliability, before using it to collect data from which inferences will be drawn (Litwin, 1995:27). Reliability is usually expressed as a correlation coefficient, or r-value, between two sets of data. Levels of 0.70 or more are generally accepted as representing good reliability (Litwin, 1995:31).

The results of the first pilot study showed a reliability of 0,963712 as measured by Cronbach Alpha and an average inter-item correlation of 0,405340.

The results of the first pilot study proved, that changes needed to be made. Studying and incorporating the results of the first pilot study, a second questionnaire was compiled. In section A, irrelevant data were deleted, due to the fact that the researcher was not going to do any comparisons with these data. Section B remained unchanged. In the core of the study, namely section C, the results were evaluated and interpreted, whereafter thorough evaluation of each question, the 62 questions and 7 employable skills were changed to 6 employable skills covering 41 competencies. The main reason for these changes, was based on the statistical analysis, where two of the employable skills and a number of the competencies combined.

4.6 ETHICAL CONSIDERATIONS IN RESEARCH

In most dictionaries, and in common usage, ethics is typically associated with morality, as both deal with matters of right and wrong. Ethical issues also arise

from our interaction with other people and, therefore, it is important to follow the guidelines set by various associations when doing research where people, other beings (animals) or the environment is involved. Miller and Brewer (2003:95) emphasise, that ethical responsibility is essential at all stages of the research process.

Laws, Harper and Marcus (2003:234) list the following responsibilities towards respondents.

- Avoiding harm to respondents
- Avoiding undue intrusion
- Communicating information and obtaining informed consent
- Rights to confidentiality and anonymity
- Fair return for assistance
- Respondents' rights in data and publications
- Respondents' involvement in research

The study under discussion, was done by adhering to the ethical requirements and respondents participated voluntarily and anonymously.

The questionnaire was compiled in order to assess the employable skills employers expect from new graduates.

4.7 CONCLUSION

Hart (1998:20,21) strongly believes, that two of the requirements for completing a doctoral thesis, are that it should make a new contribution to an area of knowledge and should demonstrate originality. The aim of the research design and method used, is to explain the research methodology the researcher used to identify the requirements to develop an Employable Skills Model. These include

the research problem, research objectives, research design, including the literature study, and the empirical study. The empirical study explains the compilation of the target population, the sample, the questionnaire, pilot survey, data collection survey, and response rate. Furthermore, an overview of the statistical analysis was given. Finally the validity and reliability of the instrument and the ethical considerations were discussed.

In the next chapter, the results and discussion of findings will be addressed.

CHAPTER 5

RESULTS AND DISCUSSION OF FINDINGS

5.1 INTRODUCTION

In the previous chapter the research methodology used, together with the empirical design, was described. A questionnaire was designed in order to determine the employable skills employers expect graduates to possess. The aim of this chapter, is to give an interpretation of the statistical analysis received. The specific problem that was researched as part of the empirical study, was to determine the employable skills employers expect from graduates on their entering the workplace.

The first part of this particular chapter deals with the research findings in respect of all the general information. The questionnaire is divided into three sections, where section B analysed the employers' view regarding graduates' competence in relation with the seven critical cross-field outcomes. Section C can be seen as the core of the study, namely the skills employers expect from graduates.

After an intensive literature research, the researcher identified six skills that consist of several competencies. All abbreviations used within the descriptive literature and tables provided within the scope of chapter five, are explained in chapter two under the heading "acronyms".

Each section will be statistically analysed and a pie chart will be used to enhance the results obtained. This chapter will, therefore, be an integration of the findings from the previous chapters. The figures were compiled by the researcher from data obtained and, therefore, no sources will be mentioned after each figure.

5.2 INTERPRETATION OF STATISTICAL ANALYSIS

The purpose of descriptive research is to portray an accurate profile of persons, events or situations where the researcher wants to give a reliable explanation, as accurately as possible, of the survey undertaken (Welman and Kruger, 2000:19; Mouton and Marais, 1993:44).

This research emphasizes the opinion of employers employing Vaal University of Technology graduates who completed a degree in the Management Sciences.

A professional statistician did the statistical analysis an all the results to determine validity, reliability, skewness and kurtosis and these are discussed in chapter four and attached as Annexure E.

5.3 SECTION A: GENERAL INFORMATION ON THE RESPONDENTS

Section A relates to the personal information regarding the respondents who completed the questionnaire. Data concerning the respondents, were divided into the following four categories.

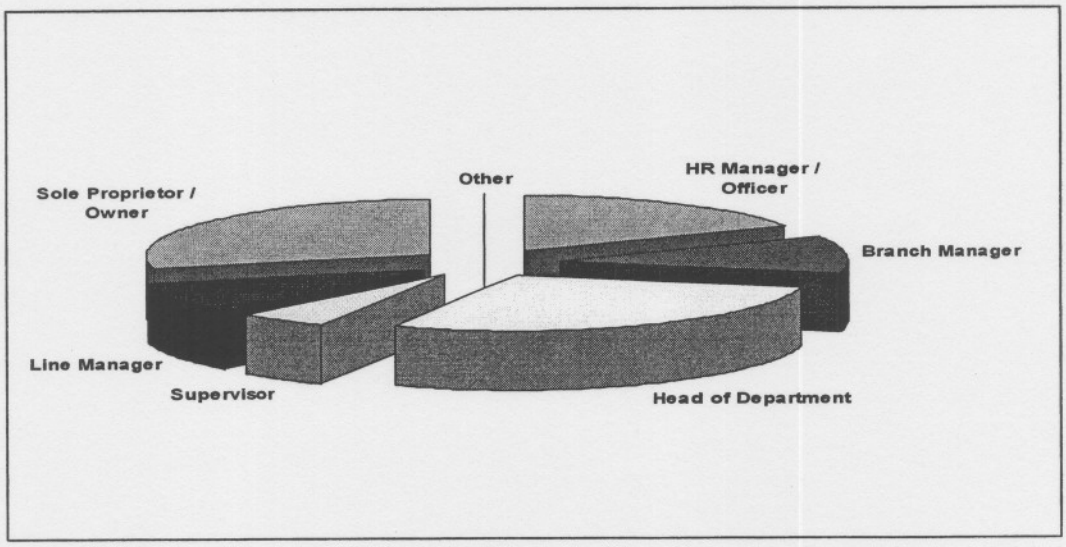
- Respondent's position within the organisation.
- Respondent's age.
- Respondent's gender.
- Respondent's highest qualification.

Respondents were requested to select the most applicable option by indicating their option with an x. Figure 5.1 gives a summary of the data received. Each of these aspects will be analysed separately and thus receives some attention.

5.3.1 Respondent's position within the organisation

Fifty-six respondents participated in the survey and completed the questionnaire. Respondents who represent organisations that employ graduates who completed their studies at the Vaal University of Technology in the Faculty of Management Sciences, completed the questionnaire. A response rate of 70,88 % was received. The distribution of respondents' position within the organisation, is indicated in figure 5.1.

Figure 5.1: Distribution of respondents' position within the organisation



With reference to figure 5.1, 28,57 % of the respondents represented Heads of Departments and Sole Proprietor/owners respectively. Human Resource Managers or Officers represented 17,86 % and 8,93 % of the questionnaires were completed by Line Managers. Branch Managers represented 10,71 % and the remaining 5,36 % was completed by Supervisors.

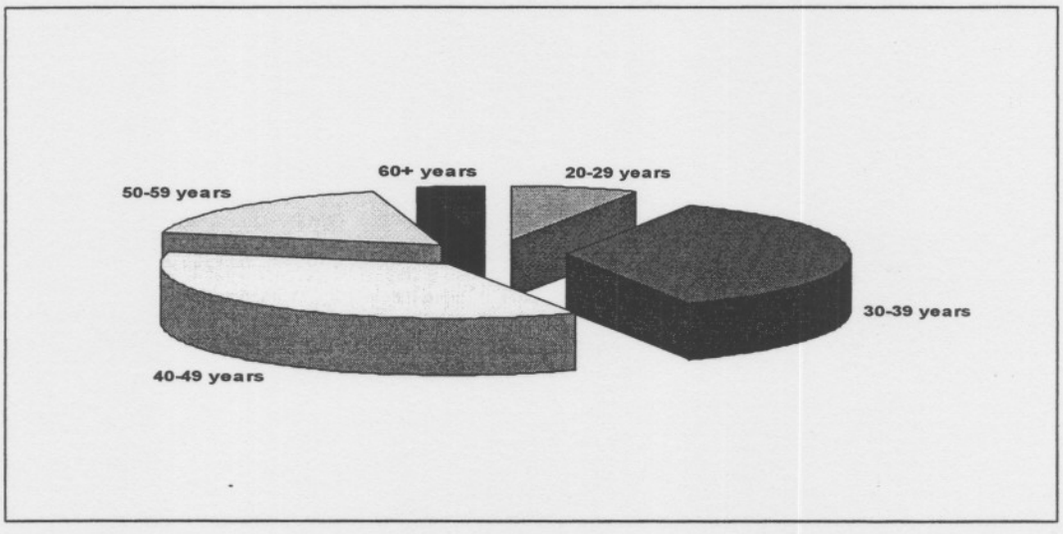
These positions were selected, in the light of their relationship with graduates. The Human Resource Manager/Officer is responsible for the appointment of the graduate, together with the input from the supervisor. All the other positions are in some way or other evident in a supervisory capacity involved with the

graduate. The titles may differ, but these respondents are the decision-makers when appointing graduates.

5.3.2 Age of respondents

The age of the respondents reflected in figure 5.2, represent 7,14 % of the respondents between the ages of 20-29 years, 35,71 % between 30-39 years, while 35,71 % was in the age group 40-49 years. The fourth age group of 50-59, was represented as 17,86 % and the remaining 3,57 % represented the respondents above 60 years of age.

Figure 5.2: Distribution of respondents' age

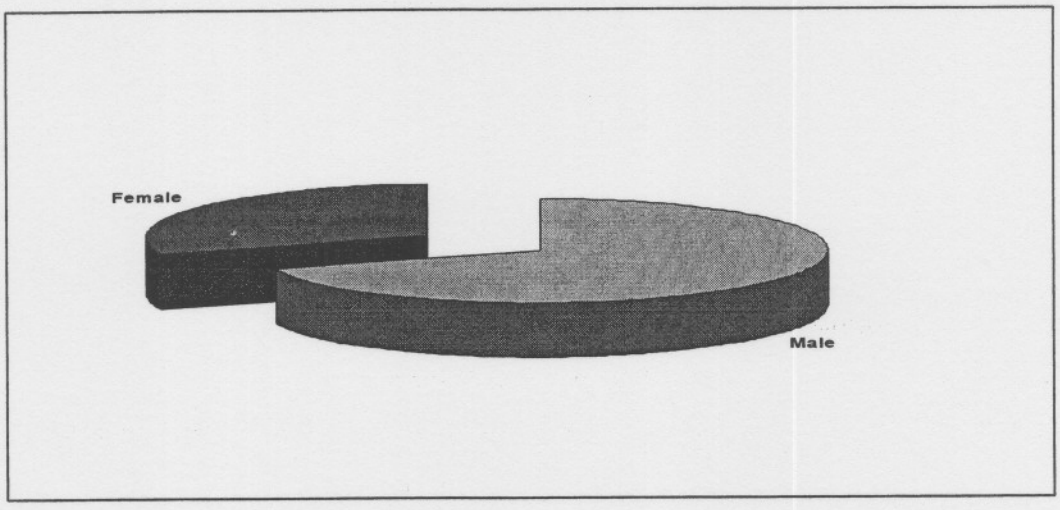


The low response rate of people over 60 years of age, is due to the fact, that most companies expect from people to retire at the age of 55 years or not later than 60 years. The small percentage in the first age group can be due to the fact that supervisors come from middle management and have more years of experience, that implies that they are older than thirty years. The distribution of the results correlates with the statement, that people in supervisory positions are usually not very young.

5.3.3 Gender of respondents

According to figure 5.3 the female respondents completing the questionnaire, constituted a total of 30,36 % and the males 69,64 %. The statistics clearly indicate that more than 2/3 of the respondents are male. It will not be possible to make an objective conclusion for this phenomenon without scientific research.

Figure: 5.3: Distribution of respondents' gender



5.3.4 Highest qualifications of respondents

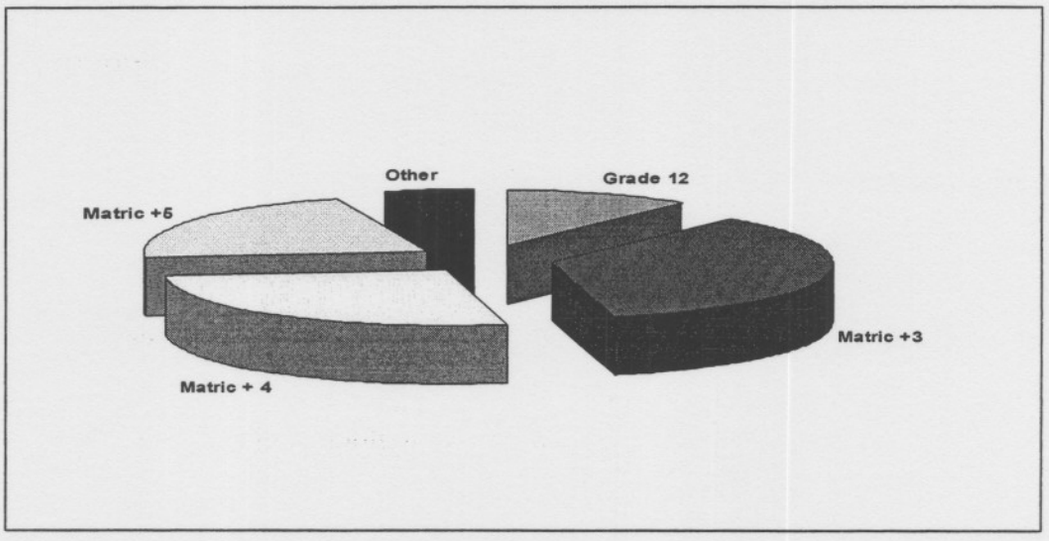
The data obtained about personal information are indicated in table 5.1.

Table 5.1: Specific data on highest qualification of respondents

QUALIFICATION	FREQUENCY (n)	PERCENTAGE (%)
Grade 12	6	10.71
Matric + 3 (Diploma/Degree)	20	35,71
Matric + 4 (Honours Degree)	15	26.79
Matric + 5 (Master's Degree)	12	21.43
Other	3	5,36
Total	56	100,00

It is clear from figure 5.4, that 89,29 % of the respondents possess a formal qualification obtained from a Higher Education Institution. More than half of the respondents, namely 53,58 %, possess a postgraduate qualification, an honours or a master's degree, while 5,36 % held a doctorate degree.

Figure 5.4: Distribution of highest qualification of respondents



5.4 SECTION B: CRITICAL CROSS-FIELD OUTCOMES

Section B of the questionnaire reflects on the seven critical cross-field outcomes. These critical cross-field outcomes must be built into all curricula at Higher Education Institutions.

The researcher wanted to determine whether employers reap the benefit from these skills taught at Higher Education Institutions.

Furthermore, the researcher is of the opinion that a solution on an advanced level cannot be implemented if the basis of the curricula is not correct and do not adhere to the requirements set by SAQA.

The following scale was used and respondents were requested to select one option.

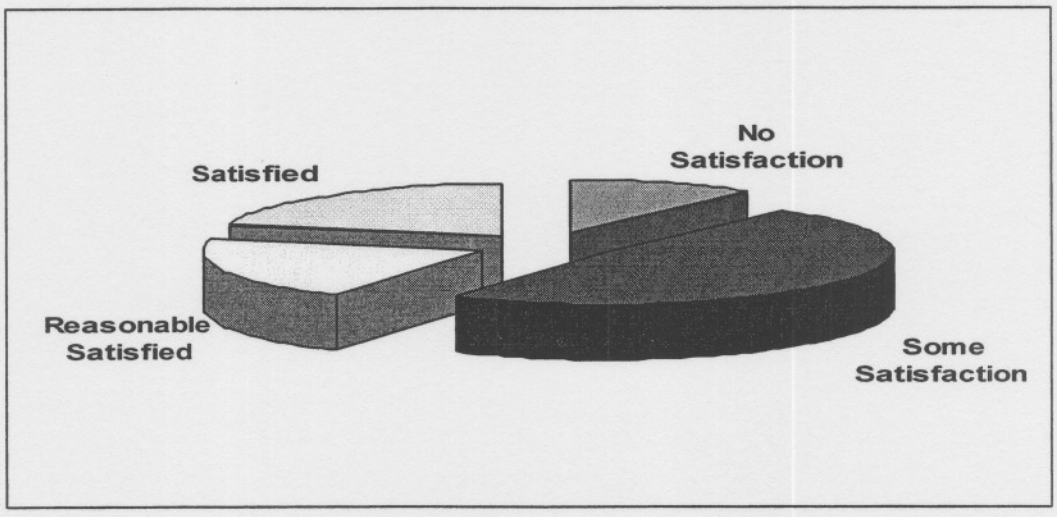
- 1 = No satisfaction
- 2 = Some satisfaction
- 3 = Reasonable satisfied
- 4 = Satisfied

Each critical cross-field outcome will be separately analysed and interpreted. Scales one and two, *no satisfaction* and *some satisfaction*, will be evaluated as not being acceptable and that respondents do not agree that graduates possess the specified skills.

5.4.1 Problem-solving skills

Problem-solving skills are defined as being the ability to identify and solve problems, with responses showing, that responsible decisions have been made by using critical and creative thinking. It is clearly indicated in figure 5.5, that 58,92 % of the respondents are not satisfied with graduates' ability to solve problems.

Figure 5.5: Problem-solving skills: Distribution of responses



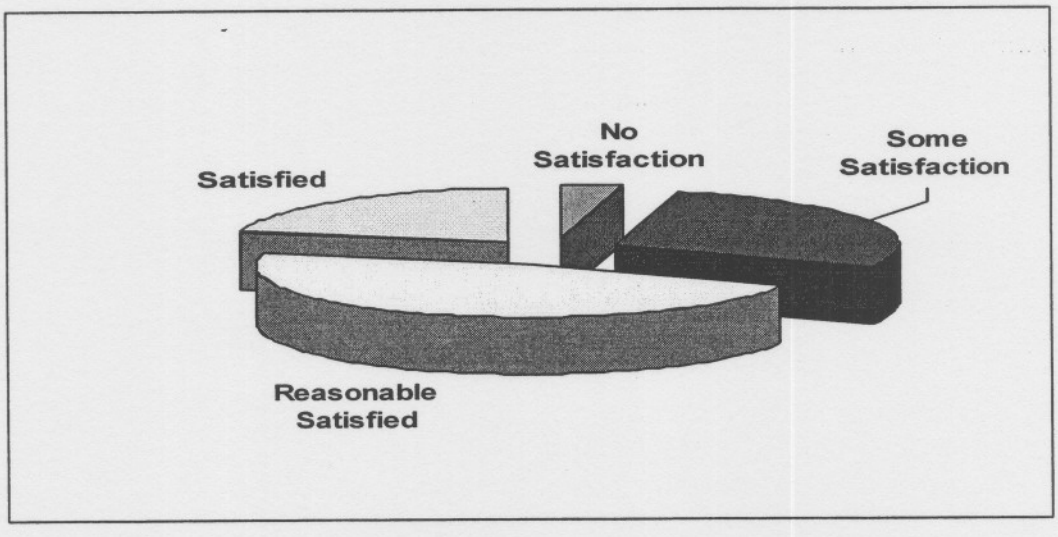
One of the reasons can be, that this critical cross-field outcome is not integrated into the curricula. The second rationale may be the fact that there is no communication between industry and Higher Education Institutions, as is evident from the literature chapters. The lack of communication can lead to lecturers not realising the importance of problem-solving skills and even if the cross-field is built into the curricula, no attention is given to the practical application thereof.

5.4.2 Teamwork skills

Teamwork skills are defined as the capability to work effectively with others as a member of a team, group, organisation and community.

The critical-cross field outcome that tests most positive, is that of teamwork skills. It is indicated in figure 5.6, that only 3,57 % of employers were not at all satisfied with graduates' teamwork skills. A total of 28,57 % agreed with *some satisfaction*. A total of 46,43 % indicated reasonable satisfaction, and while 21,43 % are of the opinion, that graduates possess teamwork skills when entering the workplace.

Figure 5.6: Teamwork skills: Distribution of responses



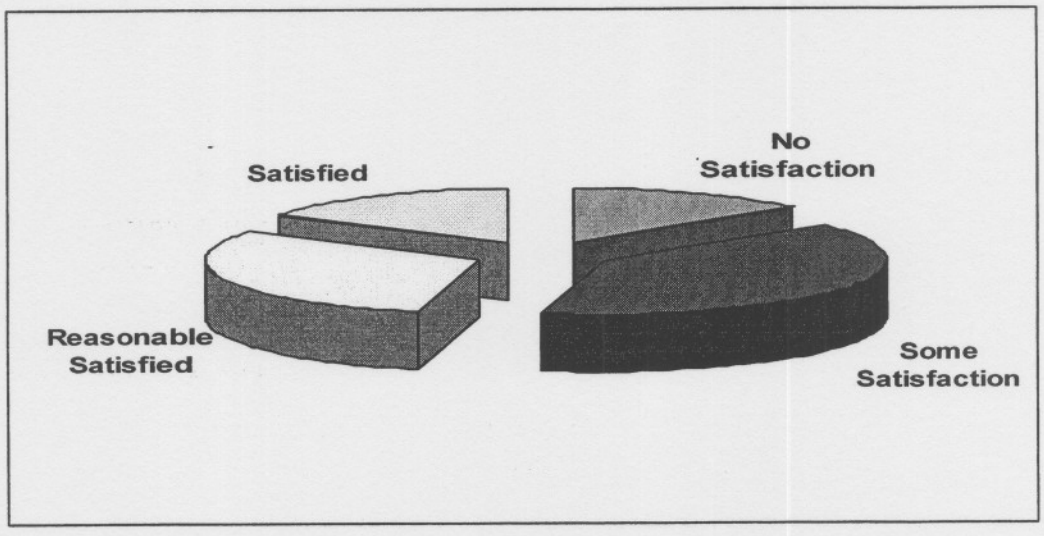
The high percentage of respondents that were satisfied could be ascribed to the fact, that a tutor system was implemented in the large classes in the Faculty of Management Sciences at the Vaal University of Technology. Students are divided into small groups, where the tutor facilitates discussions regarding the content lectured.

5.4.3 Self-responsibility skills

Self-responsibility skills are defined as the ability of individuals to organise and manage themselves and their activities responsibly and effectively.

According to figure 5.7, 14,29 % of the respondents do not agree that graduates possess self-responsibility skills, while 39,29 % agreed with *some satisfaction*. With regard to the option *reasonable satisfied*, 30,36 % of the respondents chose this option, while 16,07 % of the respondents indicated, that they were satisfied that graduates do possess self-responsibility skills.

Figure 5.7: Self-Responsibility skills: Distribution of responses



The researcher is also of the opinion that this critical cross-field outcome must aim at teaching learners to take responsibility for their actions.

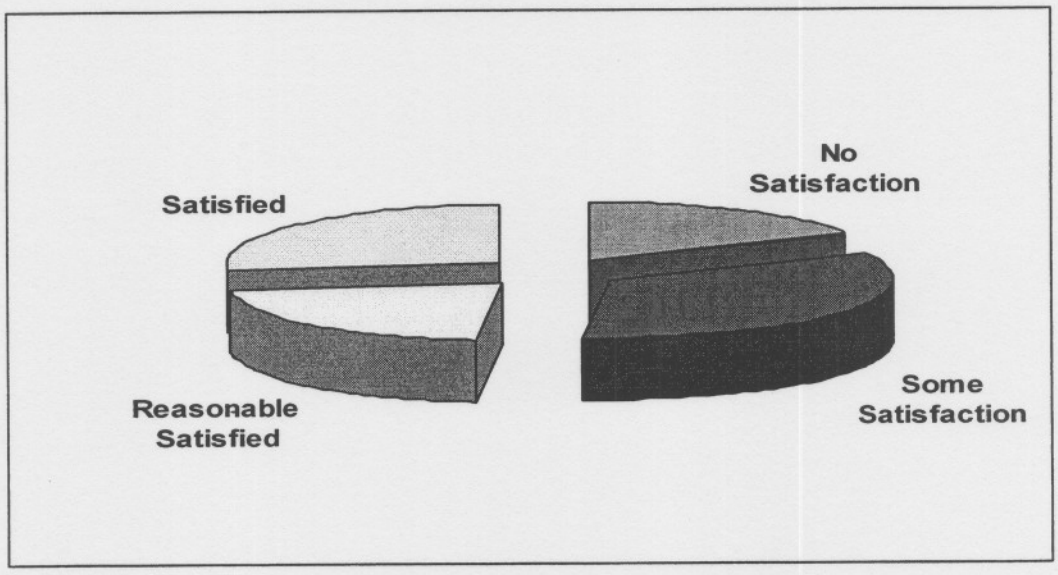
Taking into consideration, that only 16,07 % of the respondents were satisfied, attention must be given to the effective implication of self-responsibility skills.

5.4.4 Research skills

Research skills are defied as the ability to collect, analyse, organise and critically evaluates information.

It is reflected in figure 5.8, that 17,86 % were not satisfied, 33,93 % had some satisfaction, 21,43 % was reasonably satisfied while 26,79 % were satisfied with the graduates skills at doing research.

Figure 5.8: Research skills: Distribution of responses



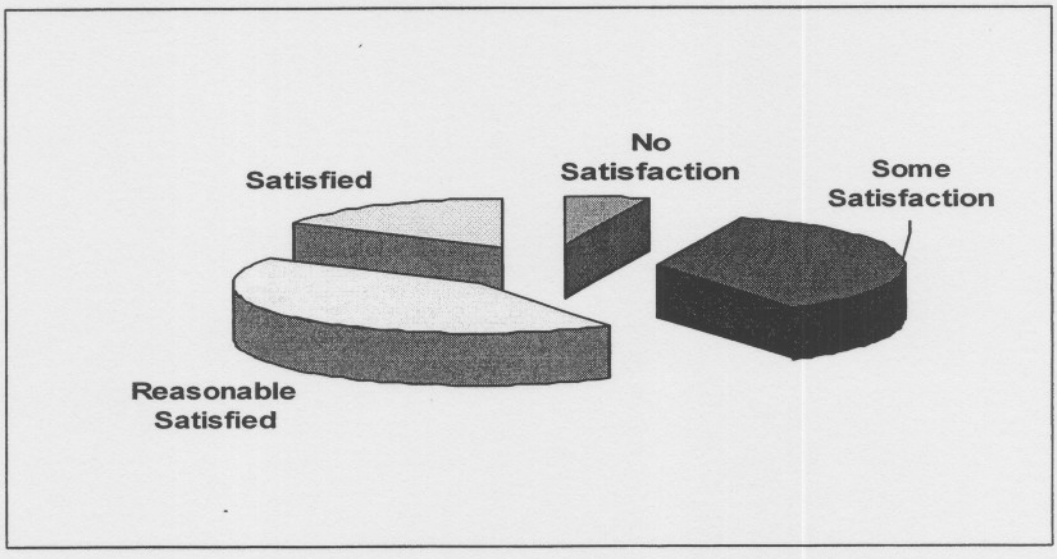
Three questions in section C support critical cross-field outcome four (4), namely C8, C11 and C12. The researcher will discuss the effect of the different competencies and ways to address the deficiencies in chapter six.

5.4.5 Communication Skills

Communication skills are defined as the ability to communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentation.

According to figure 5.9, 5,36 % of the respondents were not at all satisfied, 35,71 % indicated that some satisfaction was experienced, while 42,86 % were reasonably satisfied. The remaining 16,07 % indicated that they were satisfied.

Figure 5.9: Communication skills: Distribution of responses



The majority of the respondents (58,93 %) were satisfied that graduates possess communication skills.

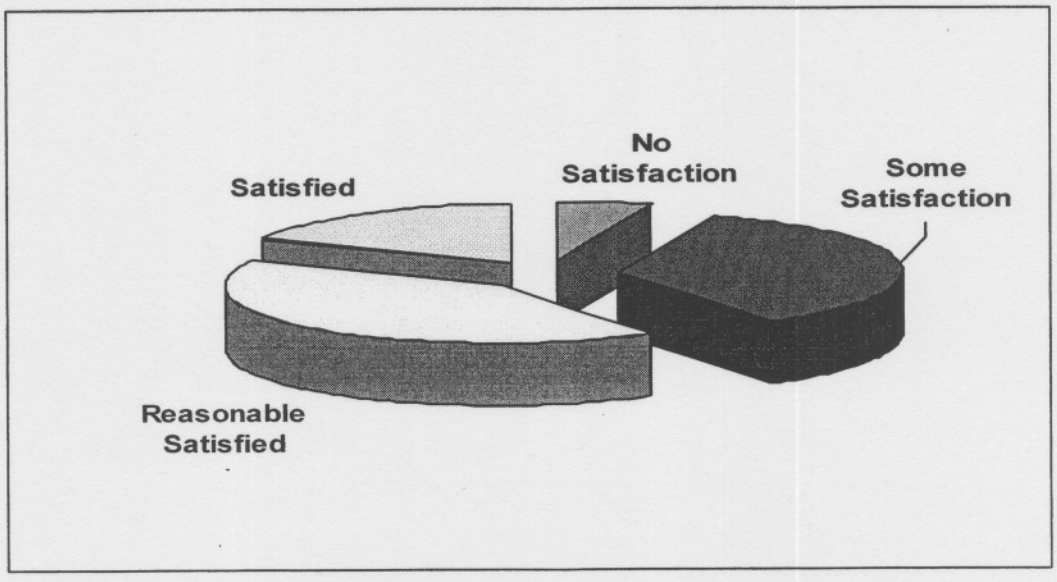
The Vaal University of Technology implemented a new syllabus from the beginning of 2004. Communication skills are compulsory for all first-year level learners. The researcher is of the opinion, that with the implementation of the new curriculum for communication skills, employers will be even more satisfied with the communication skills graduates possess. Unfortunately, the

value and effectiveness will only be possible to measure should these learners enter the workplace.

5.4.6 Technological and environmental literacy skills

Technological and environmental literacy skills are defined as the ability to use science and technology effectively and critically, showing responsibility towards the environment and health of others. The distribution of responses is indicated in figure 5.10.

Figure 5.10: Technological and environmental literacy skills: Distribution of responses



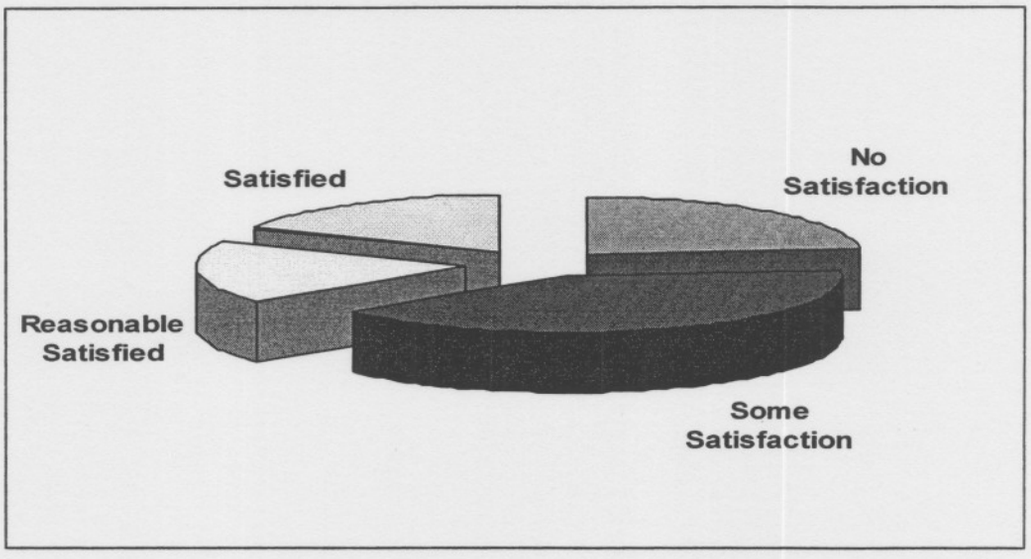
The technological and environmental literacy skills were positively evaluated, where 58,92 % of the respondents specified, that they were reasonably and fully satisfied. A minor 5,36 % of the respondents indicated *no satisfaction*, while 35,71 % chose *some satisfaction* as an option.

The positive response received for technological and environmental literacy skills, is once again reflected in section C and will be discussed during the analysis of section C.

5.4.7 Developing macro-vision skills

Developing macro-vision skills, is defined as demonstrating an understanding of the world as a set of related systems, by recognizing that problem-solving contexts do not exist in isolation. The distribution of responses is indicated in figure 5.11.

Figure 5.11: Developing macro vision skills: Distribution of responses



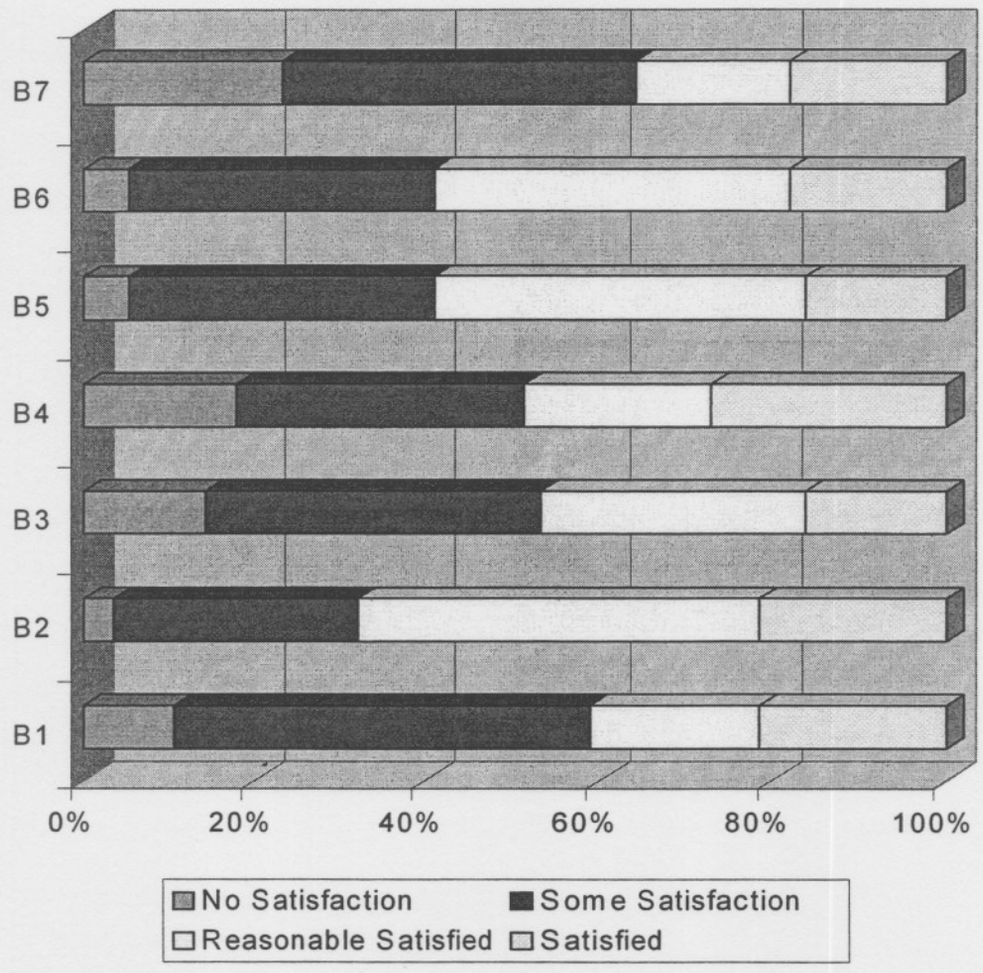
It is clear from figure 5.11, that respondents were not satisfied with the development of macro-vision skills that graduates possess. The highest rating of all the critical cross-field outcomes was given, while the *no satisfaction* option was chosen by 23,21 %. A total of 41,07 % of the respondents chose some satisfaction while 17,86 % chose *reasonable satisfaction* and *satisfied.*

In order for companies to compete globally, more pressure is placed on employees to be of a world-class standard. This implies that employees need to have a macro-vision foundation in order to allow them to participate in a competitive economy.

5.4.8 An Overview of critical cross-field outcomes

Figure 5.12 reflect the overall rating of the different critical cross-field outcomes discussed.

Figure 5.12: Critical cross-field outcomes: An overview



5.5 SECTION C: EMPLOYABLE SKILLS

The aim of the study is to determine the employable skills employers expect from graduates when they enter the workplace. Secondly, the researcher wanted to determine whether graduates of the Vaal University of Technology

who completed a degree in the Faculty of Management Sciences, possessed these skills.

Section C of the questionnaire consisted out of six skills identified from data retrieved from literature. Some of these skills were sub-divided into several competencies. Statistics obtained will be given in a figure that represents the skill, whereafter each competency was analysed and discussed.

The respondents were given the following options to choose from.

- 1 = Total disagreement
- 2 = Some disagreement
- 3 = Reasonable agreement
- 4 = Full agreement

Options (1) one and two (2) will be seen to testify that respondents are not of the opinion that graduates possess these skills. Option three (3) and four (4) will be seen as a positive response. Although option three (3) is analysed as a positive response, the researcher is of the opinion that graduates will still benefit if the response rate is taken into consideration when developing the model as option four (4) is the only rating that indicates that the respondents were convinced that graduates possessed these skills. The statistics obtained from the five employable skills, was analysed and the findings discussed.

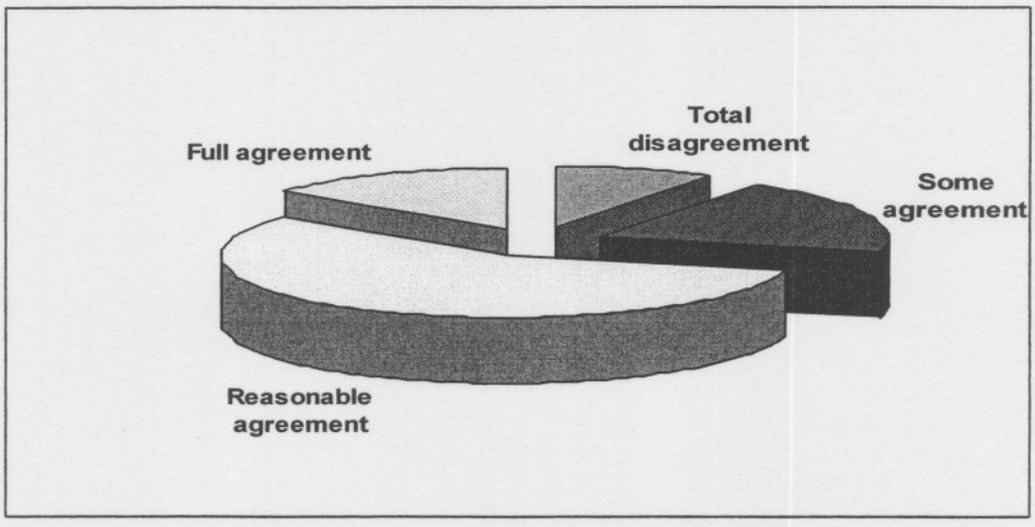
5.5.1 Job-seeking skills

The first contact with any prospective employee is, when he/she applies for a position within a company. The literature review indicated that graduates lack this skill and was, therefore, included in the questionnaire. The five competencies that were included under this skill were rated as follows by the respondents:

- **Compile a professional Curriculum Vitae**

With regard to figure 5.13, respondents selected the options as follows: 8,93% were in *total disagreement*, 19,64 % selected *some disagreement*, 57,14 % *reasonable agreement* while the remaining 14,29 % were in *full agreement*.

Figure 5.13: Compile a professional curriculum vitae: Distribution of responses



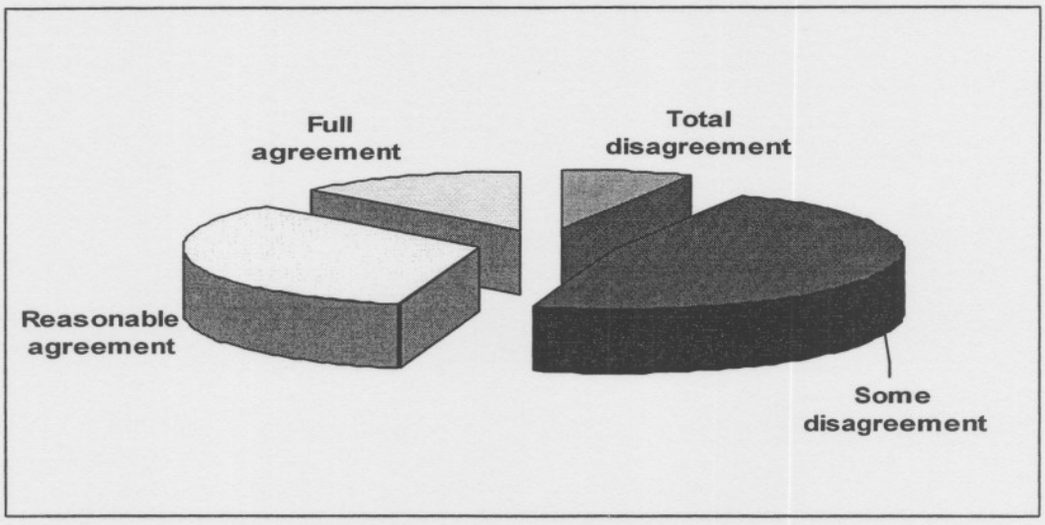
A reason for the good response, can be underscored by Du Plessis's viewpoint. Du Plessis (2004) is of the opinion, that the curriculum vitae is done by an agent or company, because of the similarity of the format and the fact that the cover letter accompanying the curriculum vitae is handwritten and not typed.

- **Submit a well-prepared application**

As indicated in figure 5.14, 7,27 % of the respondents indicated *total disagreement*, 47,27 % *some disagreement*, 32,73 % *reasonable agreement,* while 12,73 % chose the option *full agreement*.

The statistics imply, that more than fifty percent of the respondents were of the opinion, that graduates do not submit a well-prepared application. The respondents' opinion relate with the statement made under the previous competency, that the curriculum vitae that graduates submit is very professional but that the application letter is handwritten.

Figure 5.14: Submit a well-prepared application: Distribution of responses

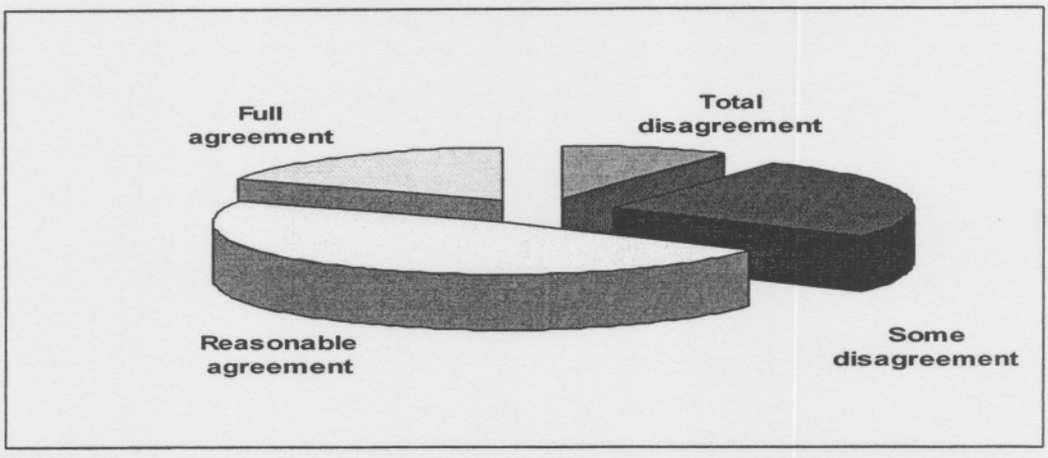


- **Dress appropriately for the interview**

From figure 5.15, most of the respondents (47,27 %) showed *reasonable agreement* that graduates dress appropriately for their interview. A total of 18,18 % were in *full agreement* while 25,45 % indicated *some disagreement*. The remaining 9,09 % selected the *total disagreement* option.

A total of 65,45 % of the respondents were satisfied that graduates are aware of the importance of first impressions and that they are well-dressed when attending an interview.

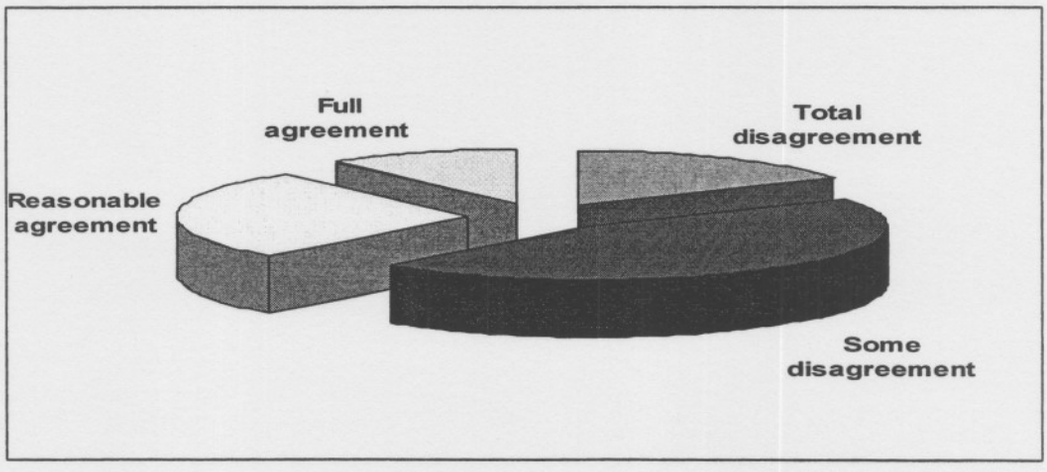
Figure 5.15: Dress appropriately for the interview: Distribution of responses



- **Compile/present a portfolio of evidence**

According to Knight and Yorke (2003:5), a portfolio of evidence, sometimes called profiles of records of achievement, should get students reflecting on their achievements, collecting and presenting supportive evidence, identifying and then acting on priorities for development. According to figure 5.16, most of the respondents (45,45 %) were in *some disagreement* while 16,36 % selected *total disagreement*. A total of 27,27 % chose *reasonable agreement* and 10,91 % *full agreement*.

Figure 5.16: Compile/present a portfolio of evidence: Distribution of responses

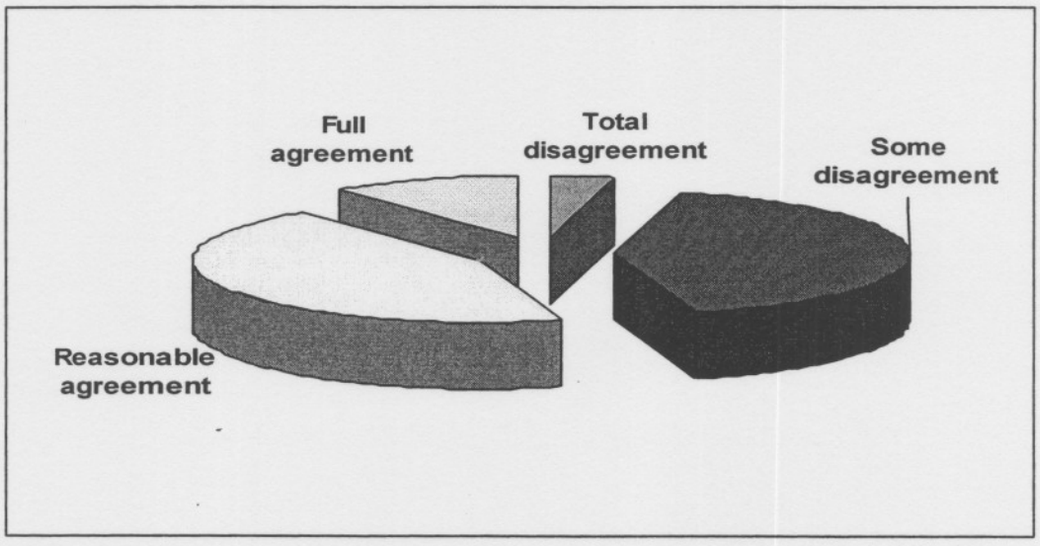


Respondents were positive (61,81 %) i.r.o. graduates not possessing the skill to compile a portfolio of evidence. Knowledge on how to compile a portfolio of evidence is important when a graduate applies for a position.

- **Conduct themselves appropriately during the interview**

Analysing the statistics of figure 5.17, the following percentages are allocated to the different options: 3,64 % selected *total disagreement*, 41,82 % selected *some disagreement*, 43,64 % selected *reasonable agreement* and 10,91 % were in *full agreement*.

Figure 5.17: Conduct themselves appropriately during the interview: Distribution of responses

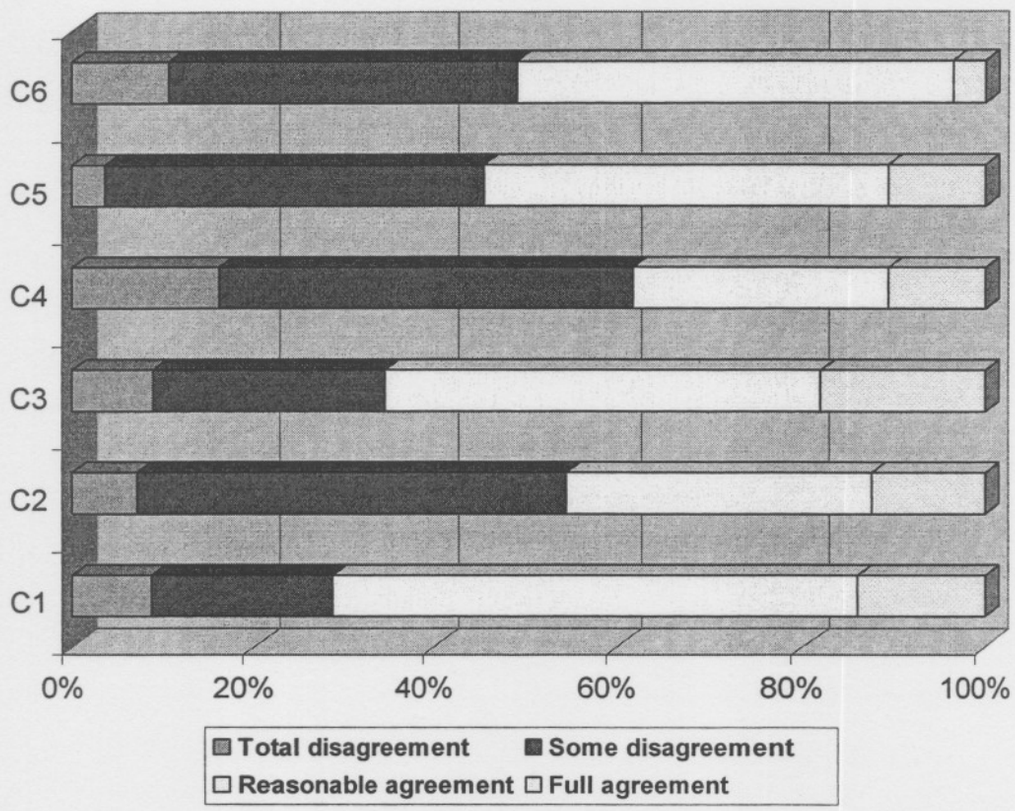


The results clearly indicate, that respondents were of the opinion, that graduates present themselves well during an interview. One must, however, keep in mind, that employers use the curriculum vitae of the applicants to select the best candidates to invite to the interview.

- **An overview of job-seeking skills**

Figure 5.18 gives a presentation of the overview of respondents' rating of graduates' job-seeking skills.

Figure 5.18: Job seeking skills: Distribution of responses



5.5.2 Academic Skills

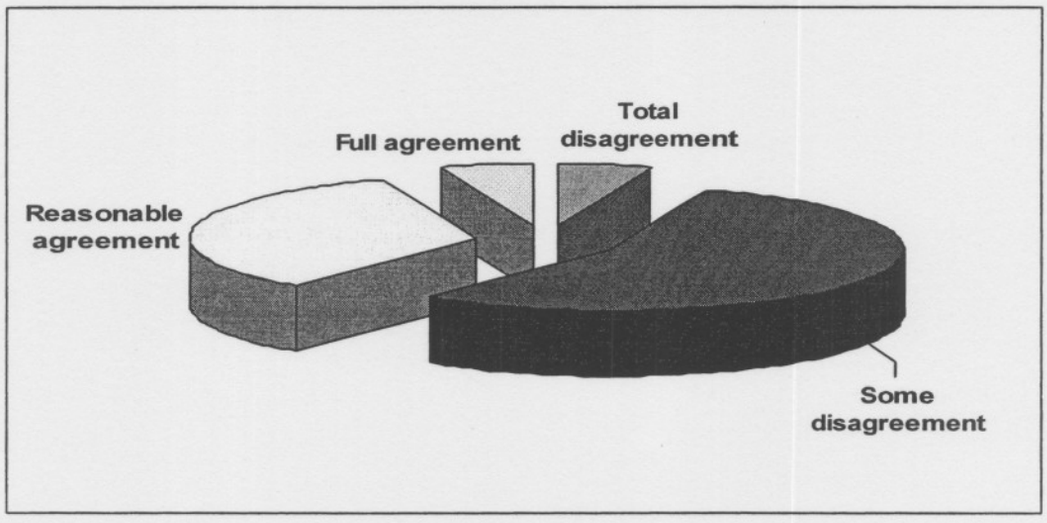
The second employable skill strongly emphasised by researchers abroad, is academic skills. Newton (2001:34) is of the opinion, that in today's society, one must actively pursue the goal of life-long learning.

The competencies identified to support academic skills, are given in the figures to follow, whereafter each skill will be analysed and discussed.

- **Apply theoretical knowledge in work-related situations**

It is meaningful that 55,35 % of the respondents were of the opinion, that graduates do not have the ability to apply theoretical knowledge in work-related situations. Both *total disagreement* and *full agreement* were selected by 5,36 % of the respondents while 33,93 % indicated *reasonable agreement* as seen in figure 5.19.

Figure 5.19: Applying theoretical knowledge in work-related situations: Distribution of responses

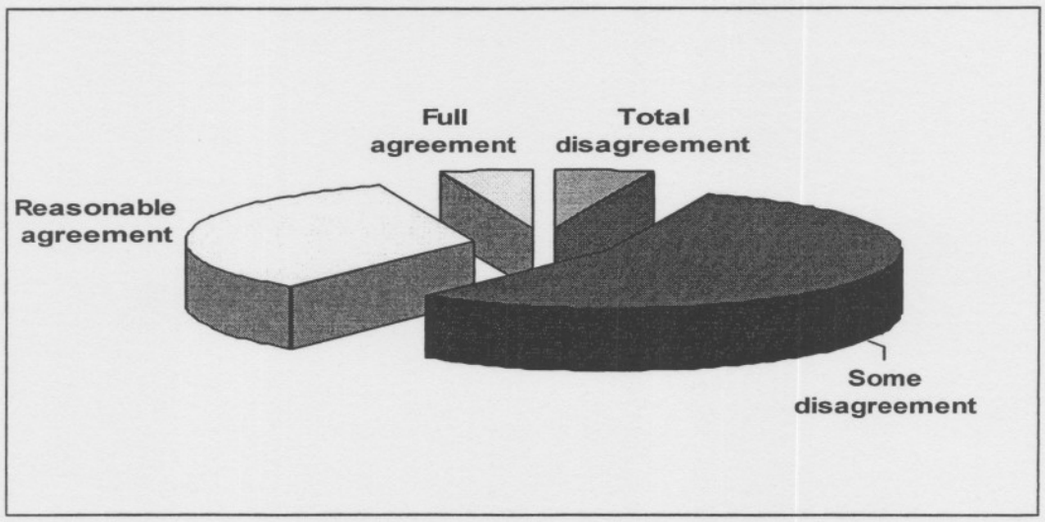


In an oral discussion with Wield (2001), a representative from a large retail store who regularly employs students from the Vaal University of Technology, it was clear, that graduates have extensive theoretical knowledge, but do not know how to apply it in practice.

- **Simulate information**

It is reflected in figure 5.20, that the response rate was as follows: 33,93 % *reasonable agreement;* 5,36 *fully agreement;* 55,35 *some agreement* and 5,36 *total disagreement.*

Figure 5.20: Simulate information: Distribution of responses



As mentioned in section 5.4.4 in the discussion of research skills as a critical cross-field outcome, simulation of information forms part of this skill. The disagreement from the respondents on this competency, was also underscored i.r.o. research skills.

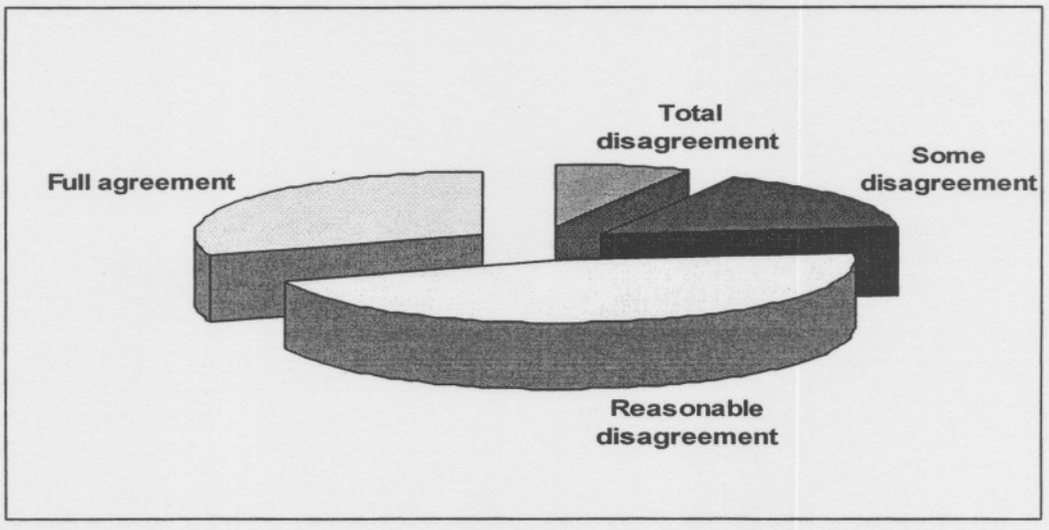
Simulation of information is the starting point for any research and although learners can reason, that they do not want to be involved in research when entering the corporate world, the will need to be competent in order to gather information for something as simple as a memorandum.

- **Willingness to learn**

Figure 5.21 shows, that a high percentage (76,78 %) were in *full agreement* or *reasonable agreement* that i.r.o. graduates willingness to learn.

Some disagreement was selected by 16,07 %, while 7,14 % were in *total disagreement.*

Figure 5.21: Willingness to learn: Distribution of responses



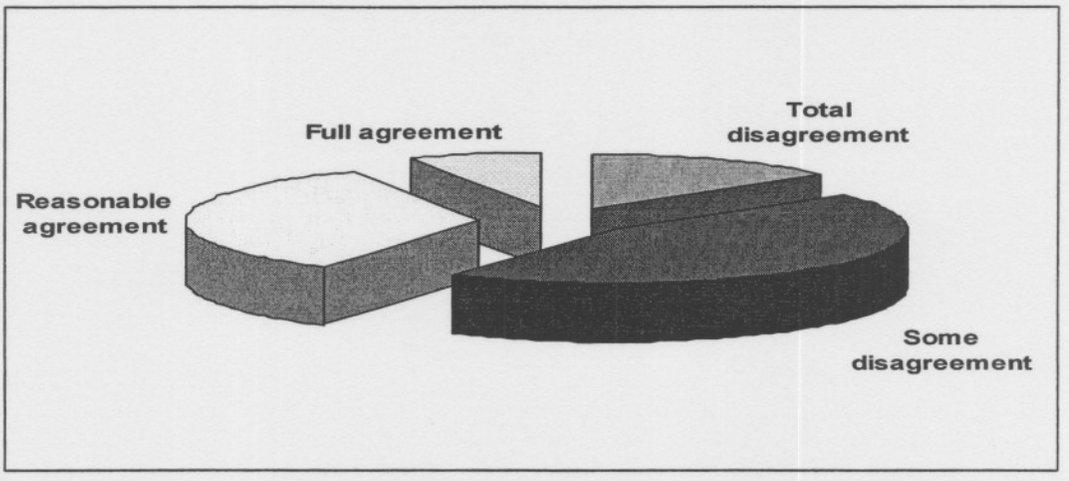
Research done by Wilson (2001:192), supports the statistical analysis, that the positive side of being a graduate is, that they are seen as young people who are:

- quick to learn,
- open to new ideas,
- enthusiastic,
- energetic,
- fit and healthy, and
- on top of new technology.

- **Demonstrate analytical thinking**

According to figure 5.22, respondents' options were divided as follows: 14,29 % opted for *total disagreement*, 44,64 % chose *some disagreement*, *reasonable agreement* was chosen by 33,93 %, while 7,14 % selected *full agreement*.

Figure 5.22: Demonstrate analytical thinking: Distribution of responses

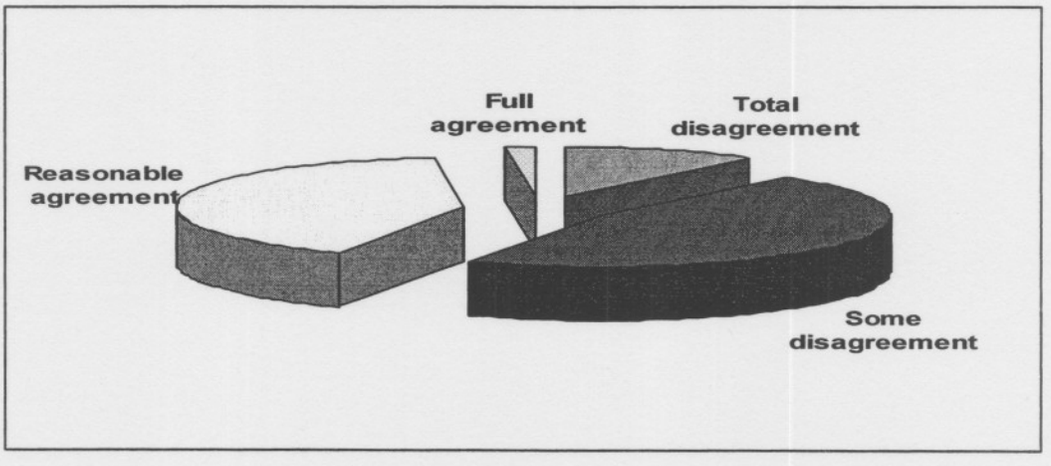


Respondents are of the opinion, that graduates do not demonstrate analytical thinking in the work environment and that this competency need to receive attention when developing an employable skills model.

- **Combine ideas or information in new ways**

A large component (46,43 %) of the respondents indicated *some disagreement*. It is indicated in figure 5.23 that only one respondent (1,79 %) was in *full agreement* and 10,71 % opted for *total disagreement*. The remaining respondents (41,07 %) were in *reasonable agreement*.

Figure 5.23: Combine ideas or information in new ways: Distribution of responses

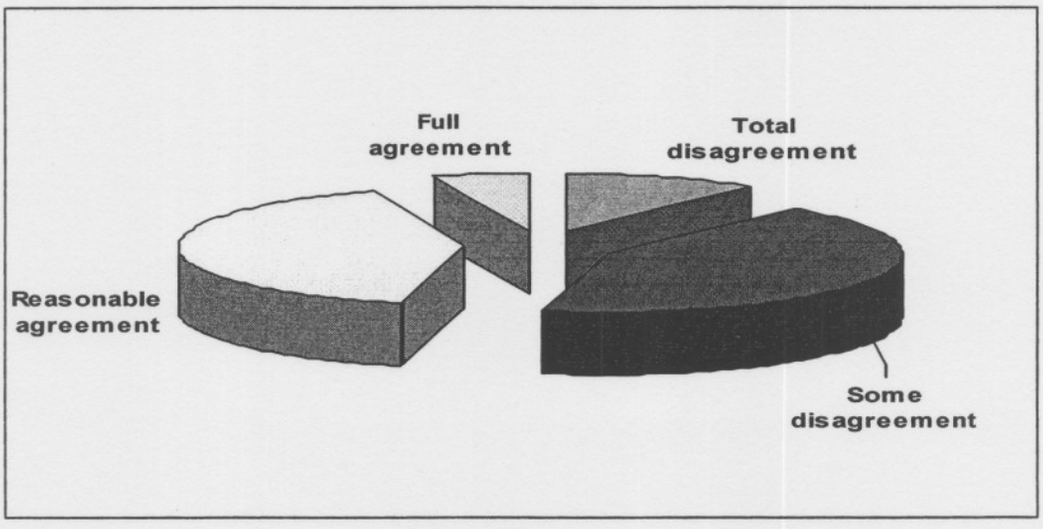


Although graduates have the theoretical knowledge, it is once again clear, that the ability to apply the theory in the workplace, is lacking.

- **Organise ideas**

According to figure 5.24, 10,71 % of the respondents selected *total disagreement*, 42,86 % *some disagreement*, while *reasonable agreement* was selected by 41,07 and 5,36 % were in *full agreement*.

Figure 5.24: Organise ideas: Distribution of responses



Graduates must demonstrate the ability to combine and organise ideas, so that there will be no ambiguity and that the information will be easy to understand.

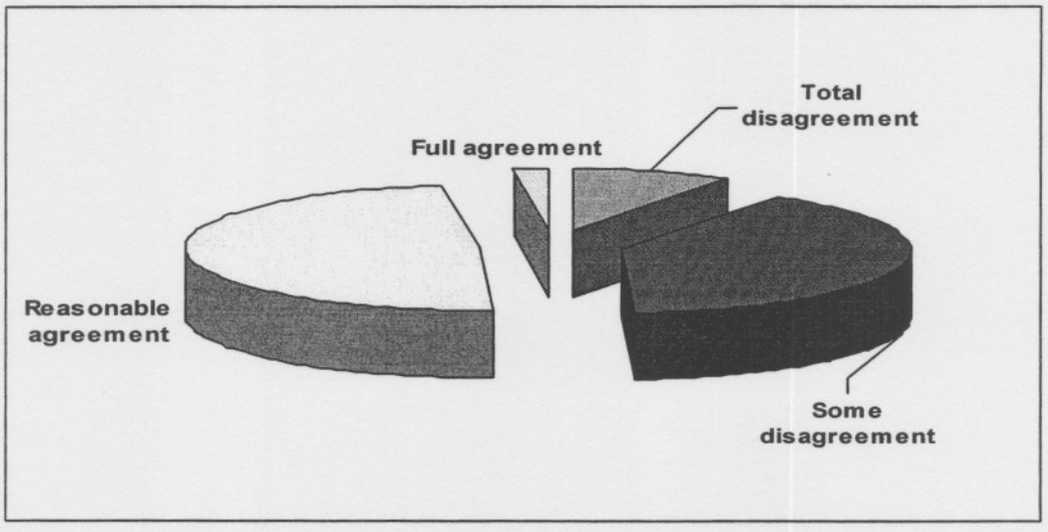
- **Present information in different formats**

In respect of asking the respondents whether graduates can present information in different formats, 49,09 % selected *reasonable agreement*.

A total of 9,09 % opted for *some disagreement,* while 40 % selected *total disagreement.* One respondent (1,82 %) selected *full agreement.*

The distribution of responses is given in figure 5.25.

Figure 5.25: Present information in different formats: Distribution of responses

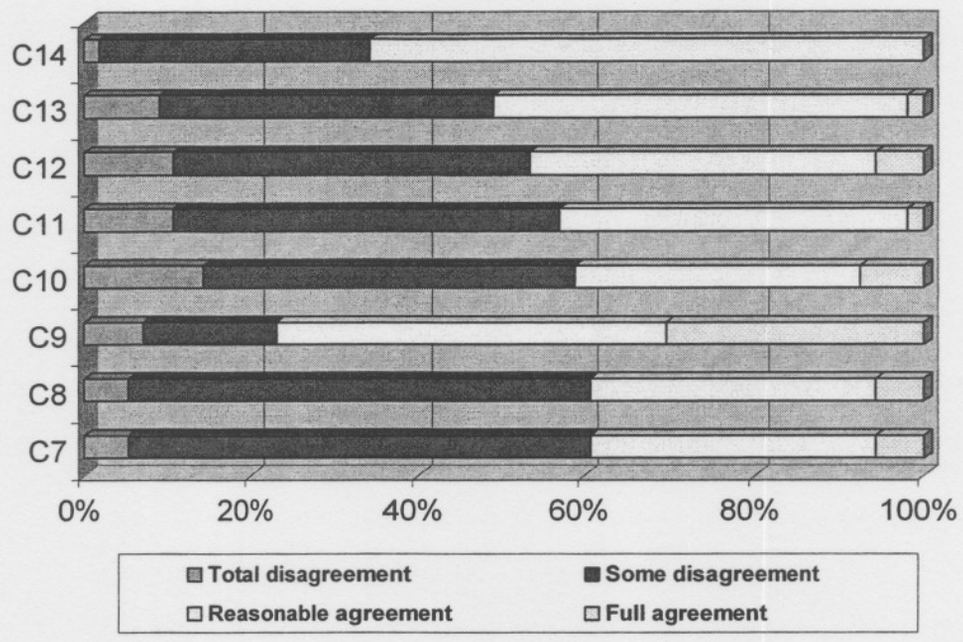


Respondents show a very small difference in response and the fact that only one respondent is of the opinion, that graduates are competent to present information in different formats, convinced the researcher that attention should be given to this competency.

- **An overview of academic skills**

Figure 5.26 gives a presentation of the overview of respondents' rating of graduates' academic skills.

Figure 5.26: Academic skills: Distribution of responses



5.5.3 Personal / Career Management

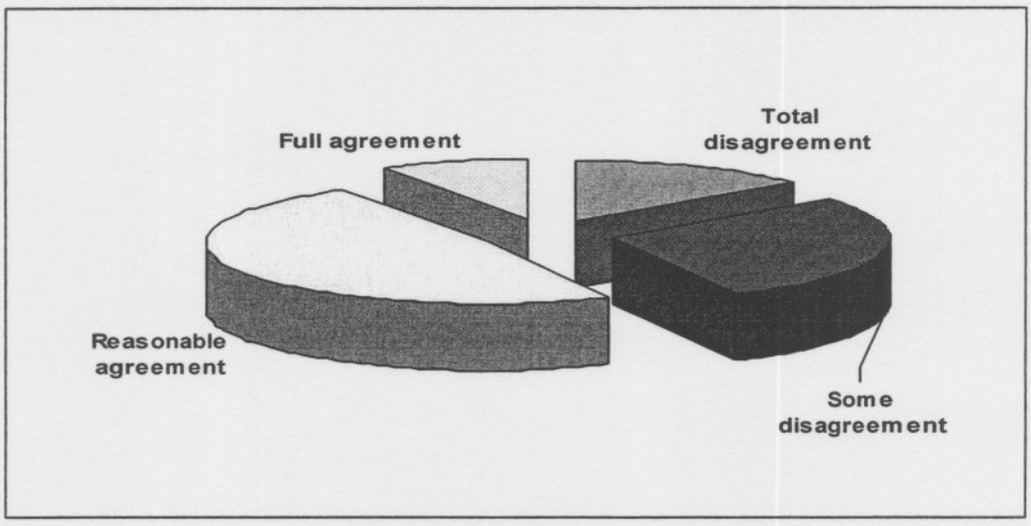
The third skill identified by the researcher, was personal/career management. Career management is a process by which individuals develop an awareness about their own strengths, weaknesses, values and interests, identify goals and opportunities and establish plans for the achievement of these goals.

The distribution of responses for each of the competencies identified under the skill personal/career management, is presented as follows.

- **Acquire, organise, interpret and evaluate information on career awareness**

The distribution of responses for the competencies; acquire, organise, interpret and evaluate information on career awareness, is indicated in figure 5.27.

Figure 5.27: Acquire, organise, interpret and evaluate information regarding their careers: Distribution of responses



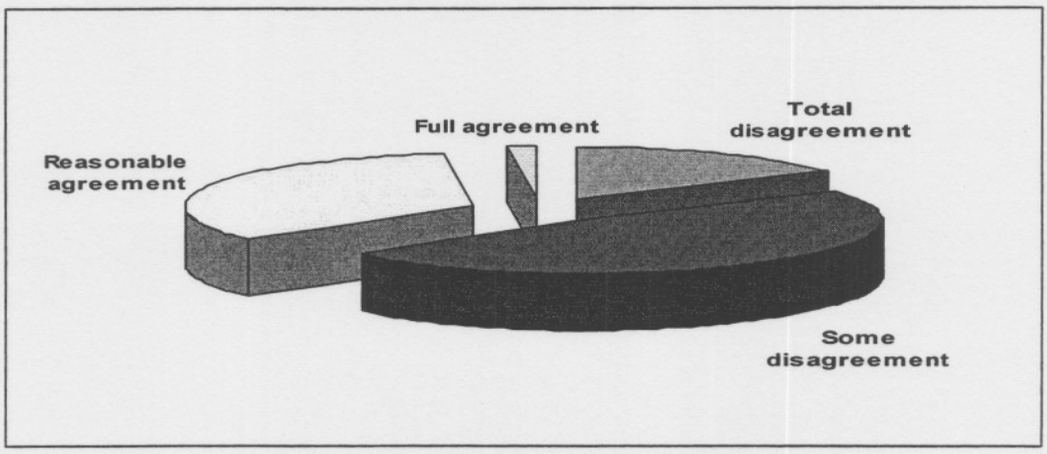
A high percentage (48,21 %) of the respondents rated, that they *reasonably agreed* with graduates' ability to collect data regarding their career. Figure 5.27 also indicates, that 8,93 % indicated *full agreement* and 28,57 % *some disagreement*. *Total disagreement* was opted for by 14,29 % of the respondents.

Taking into consideration the graduates' study period of at least three years to obtain their qualifications, it is clear, that they will possess the competency to acquire, organise, interpret and evaluate information regarding their careers.

- **Conduct career self-assessment**

It is indicated in figure 5.28, that 48,21 % of the respondents chose *some disagreement* and 16,07 % *total disagreement*. *Reasonable agreement* was chosen by 33,93 % and only one respondent (1,79 %) agreed, that students can conduct career self-assessment.

Figure 5.28: Conduct career self-assessment: Distribution of responses

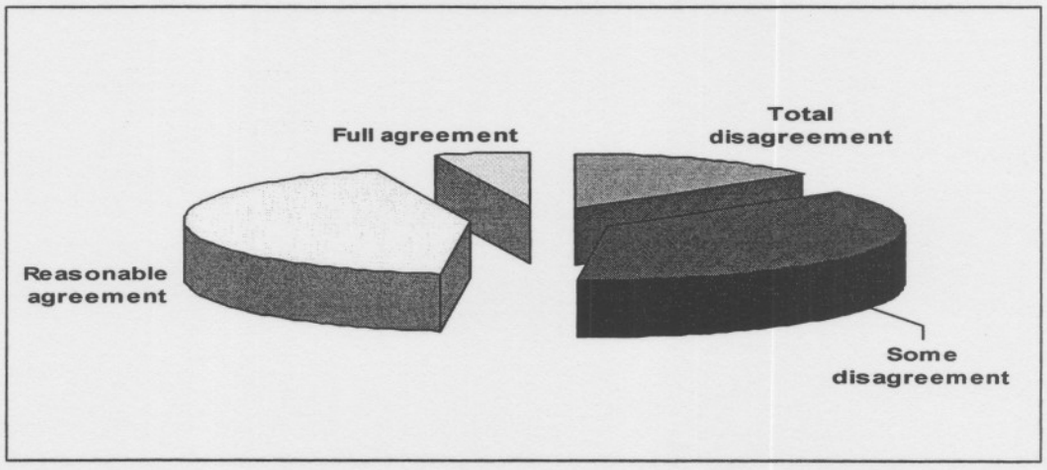


Higher Education Institutions claim, that they implement outcomes-based learning that emphasises peer and self-assessment. The responses, however, clearly indicated, that employers do not agree that graduates possess self-assessment skills.

- **Identify and pursue their career goals**

Figure 5.29 represents the respondents choices as follows: 14,29 %, total disagreement, 37,50 % *some disagreement*, 42,86 % *reasonable agreement* and 5,36, *full agreement*.

Figure 5.29: Identify and pursue their career goals: Distribution of responses

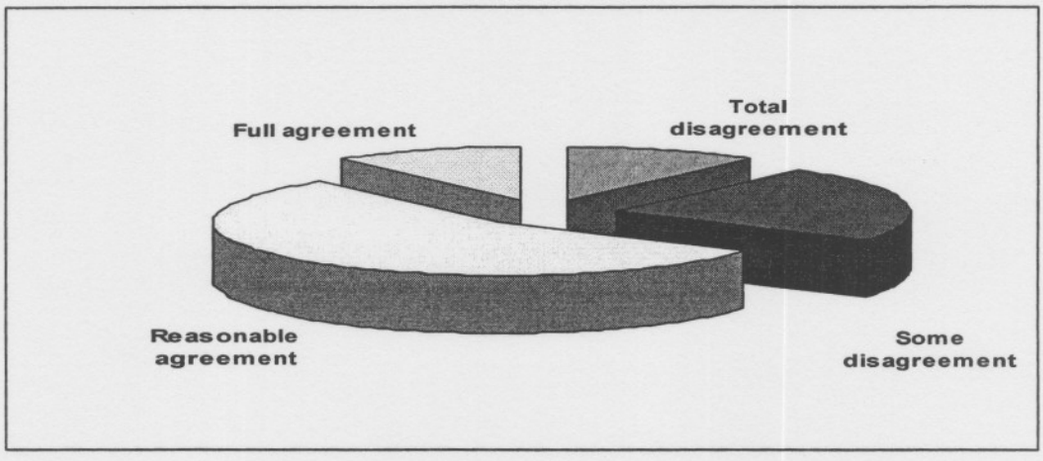


The results show once again, that graduates do not pursue their career goals or it can be, that they do not even set, any career goals for themselves.

- **Engage in continuous learning**

Respondents reasonably agree, that a high percentage (55,36 %) of the graduates were engaged in continuous learning, as is indicated in figure 5.30. Both *total disagreement* and *full agreement* received 10,71 % each, while 23,21 % *disagree to some extent.*

Figure 5.30: Engage in continuous learning: Distribution of responses



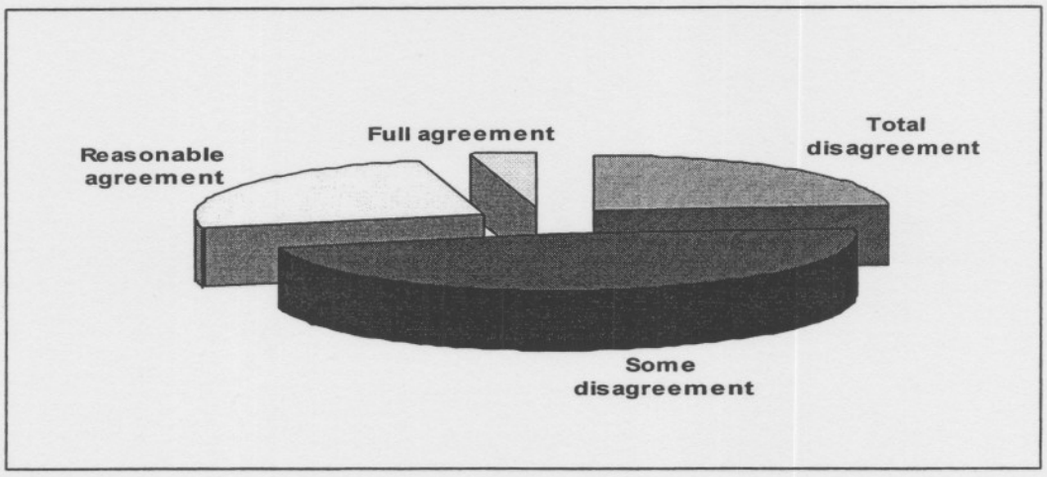
This positive phenomenon could be the result of the competitiveness of the workforce. Employees are aware that every year at least 600 000 learners graduate and that they need to stay abreast in a very competitive workforce.

- **Demonstrate effective time management**

Figure 5.31 indicates, that 23,21 % and 48,21 % were in *total* and in *some disagreement* respectively. Only two respondents (3,57) % were in *full agreement* that is, that graduates demonstrate the ability to manage their time while 25,00 % *reasonably agreed.* Not only do graduates need to possess time management skills, but learners also need to apply these skills while

engaged in formal studies. The results clearly show that employers do not observe these skills among graduates.

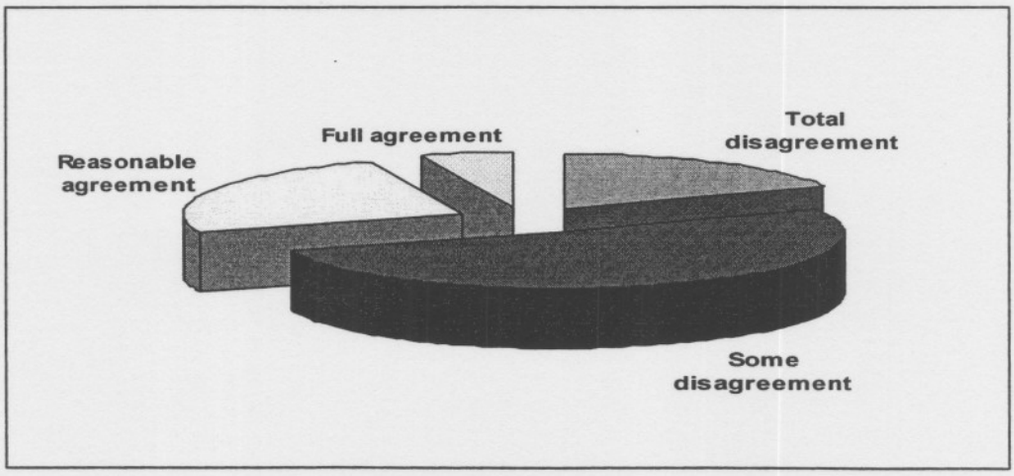
Figure 5.31: Demonstrate effective time management: Distribution of responses



- **Demonstrate effective stress management**

Figure 5.32 clearly indicates, that more than half (51,79 %) of the respondents were in *some disagreement,* while a further 17,86 % showed *totally disagreement* with the question asked. The percentage that opted for *full agreement* amounted to 5,36 % and 25,00 % indicated *reasonable agreement*.

Figure 5.32: Demonstrate effective stress management: Distribution of responses



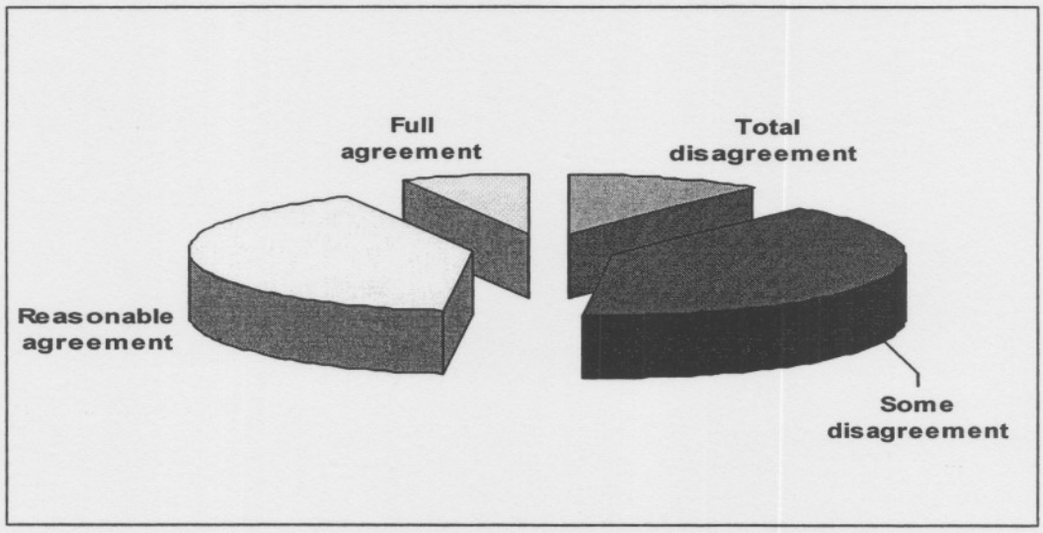
The large percentage of respondents that rated stress management negatively, showed unanimity, that attention should be paid to this competency.

- **Adapt to the dynamics of the workplace**

The distribution of the responses as indicated in figure 5.33 is as follows: a total of 10,71 % chose *total disagreement* while both *some disagreement* and *reasonable agreement* received 41,07 %.

The final percentage indicated by figure 5.33, is 7,14 % that selected *full agreement.*

Figure 5.33: Adapt to the dynamics of the workplace: Distribution of responses

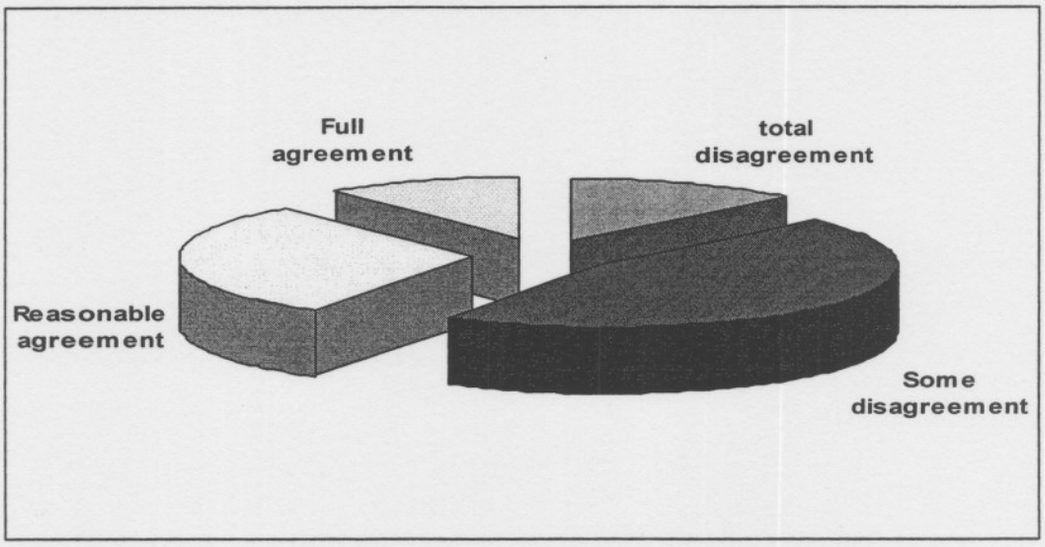


It is difficult to make the transition from a Higher Education Institution to the workplace, although learners expect it to be easy. The above-mentioned results of the competency, "adapt to the dynamics of the workplace", support the information stated in chapter three.

- **Accept responsibility**

The statistics in figure 5.34 underscores the view, that most of the respondents (58,92 %) indicated, that they were in disagreement, whereas 12,50 % *totally disagreed* and 46,43 % selected *some disagreement*. A total of 30,36 % of the respondents *reasonably agreed,* and 10,71 % where in *full agreement*.

Figure 5.34: Accept responsibility: Distribution of responses

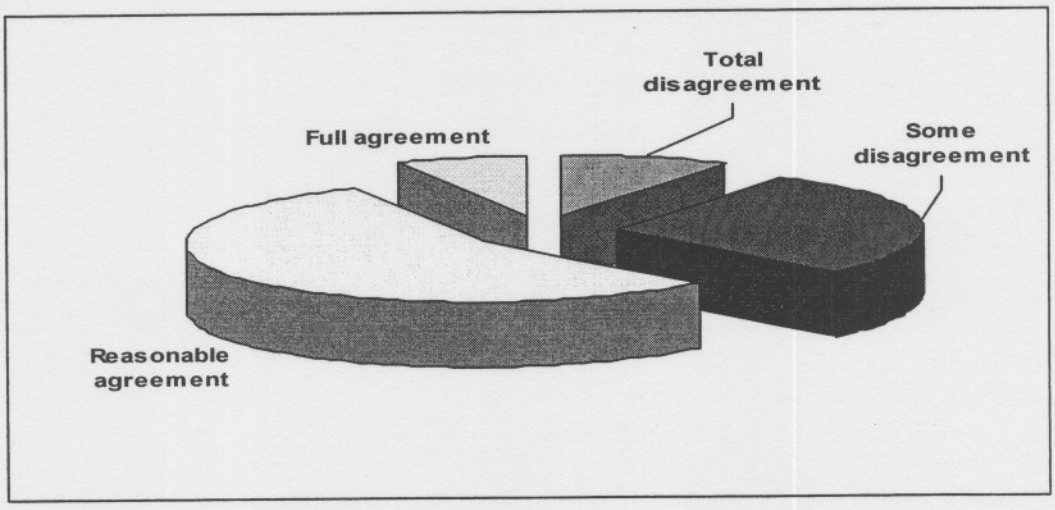


With reference to the critical cross-field, self-responsibility skills, it is clear, that respondents were of the opinion, that graduates/employers must take responsibility for their activities and how they organise and manage themselves.

- **Demonstrate a positive self image**

Respondents (55,36 %), *reasonably agreed* that graduates possessed a positive self-image, as indicated in figure 5.35. *Total disagreement* was opted for by 8,93 % of the respondents while 28,57 % selected *some disagreement*. The percentage for *full agreement* was 7,14 %.

Figure 5.35: Demonstrate a positive self image: Distribution of responses

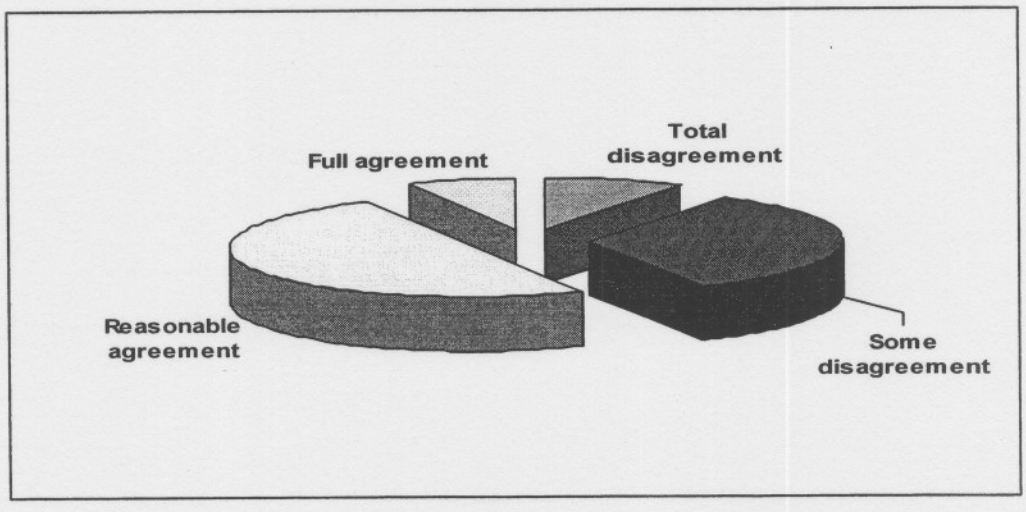


A positive self-image includes self-confidence, self-awareness, self-belief, self-sufficiency, self-direction and self-promotion. Most of the respondents were of the opinion, that graduates possessed these skills

- **Display initiative in their career**

The distribution of responses for the competency, *display initiative in their career*, is indicated in figure 5.36.

Figure 5.36: Display initiative in their career: Distribution of responses



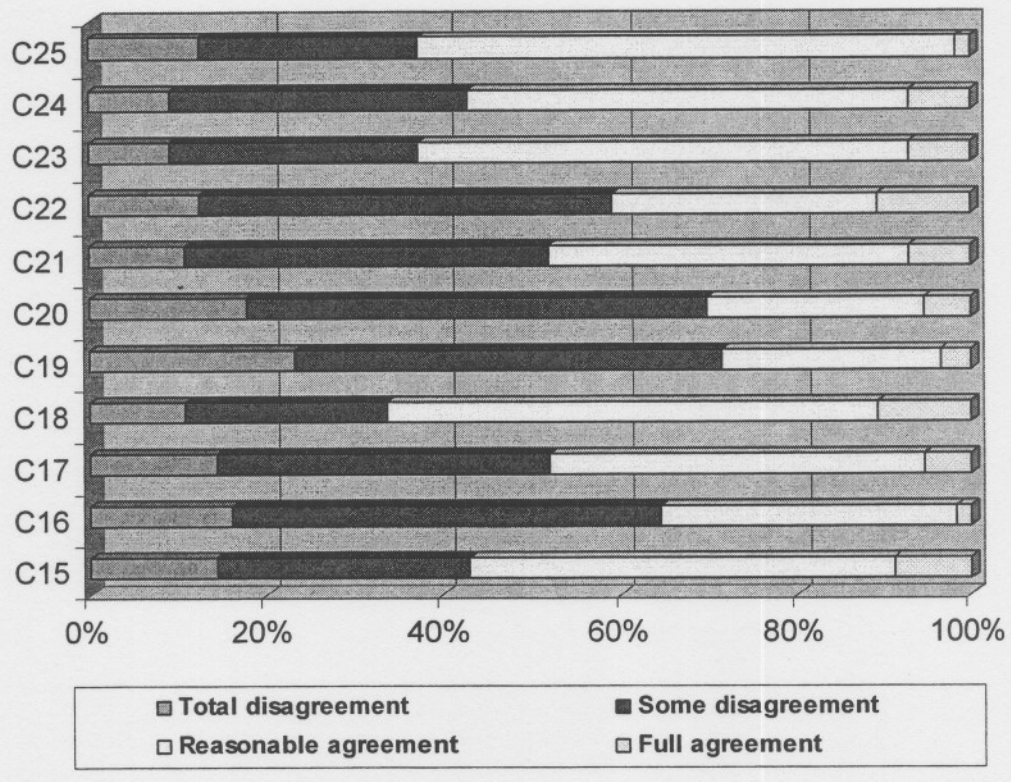
As is indicated in figure 5.36, exactly 50 % of the respondents were in *reasonable agreement* that graduates display initiative in their career, while a further 7,14 % was in *full agreement*. Furthermore, 33,93 % of the respondents indicated for *some disagreement,* and 8,93 % selected *total disagreement*.

The viewpoint of Wilson (2001:192) can once again help to verify the statistics, that a graduate is energetic and enthusiastic and these abilities could lead to their grasping opportunities in their career.

- **An overview of graduates' Personal/Career Management skills**

Figure 5.37 shows an overview of the distribution of responses for the various competencies under "Personal/Career Management skills".

Figure 5.37: Personal/Career Management skills: An Overview



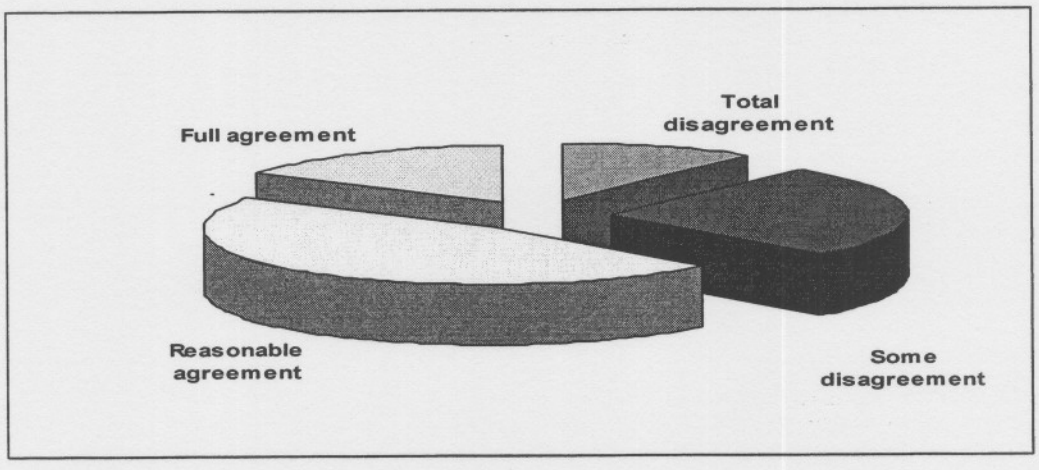
5.5.4 INTERPERSONAL SKILLS

Interpersonal skills can be defined as the activities of dealing effectively with the emotional reactions of others, having smooth interaction with others and having positive relationships with people (DuBrin, 1997:2). The literature study emphasised that employers expect graduates entering the workplace, to possess certain interpersonal skills. The distribution of responses for the various competencies under interpersonal skills, is given as follows.

- **Self-confidence**

Figure 5.38 indicates, that 46,43 % of the respondents *reasonably agreed* that graduates possess self-confidence. A further 26,79 % represents *some disagreement* while 10,71 % of the respondents selected *total disagreement*. Nine of the respondents (16,07 %) were in *full agreement* that graduates did possess self-confidence.

Figure 5.38: Self-confidence: Distribution of responses

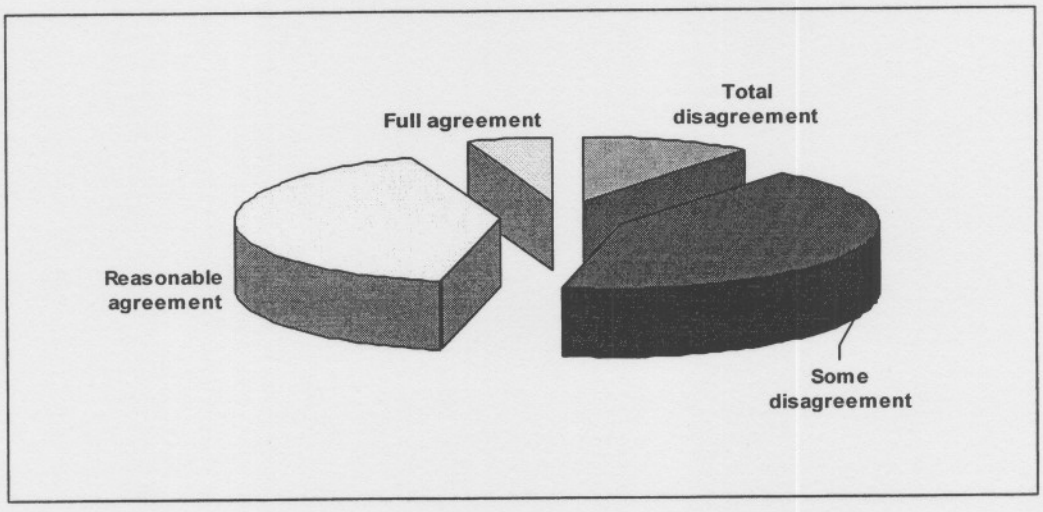


- **Self control**

According to figure 5.39 respondents who indicate *some disagreement* added up to 42,86 %, while 41,07 % *reasonably agreed*. *Total disagreement* was

indicated by 10,71 % of the respondents and 5,36 % of the respondents were in *full agreement*.

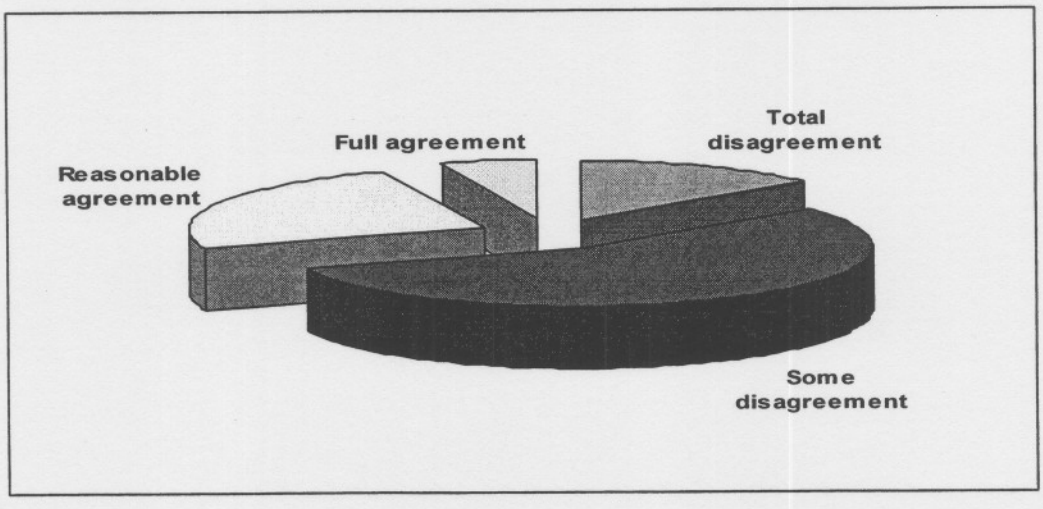
Figure 5.39: Self-control: Distribution of responses



- **Initiative**

Figure 5.40 clearly indicates that the majority of the respondents (55,36 %) indicated *some disagreement* while a further 14,29 % opted for *total disagreement*. *Reasonable agreement* was selected by 25,00 %, and 5,36 % selected *full agreement*.

Figure 5.40: Initiative: Distribution of responses

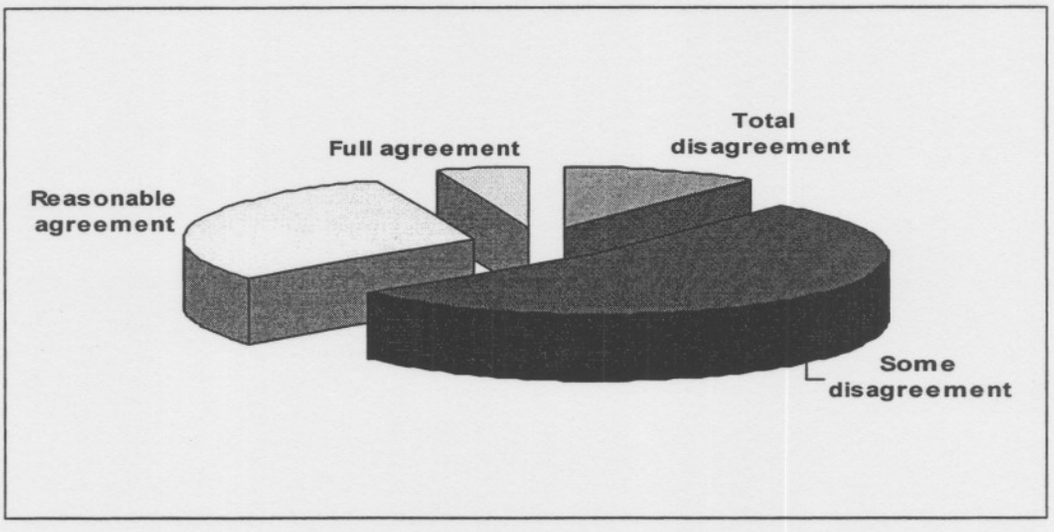


- **Assertiveness**

The statistical data form figure 5.41 could suggest, that 10,71 % of the respondents had chosen *total disagreement while some disagreement* was selected by 53,57 % and *reasonable agreement* by 30,36 %.

Only three respondents (5,36 %) indicated that they were in *full agreement* that graduates were assertive.

Figure 5.41: Assertiveness: Distribution of responses

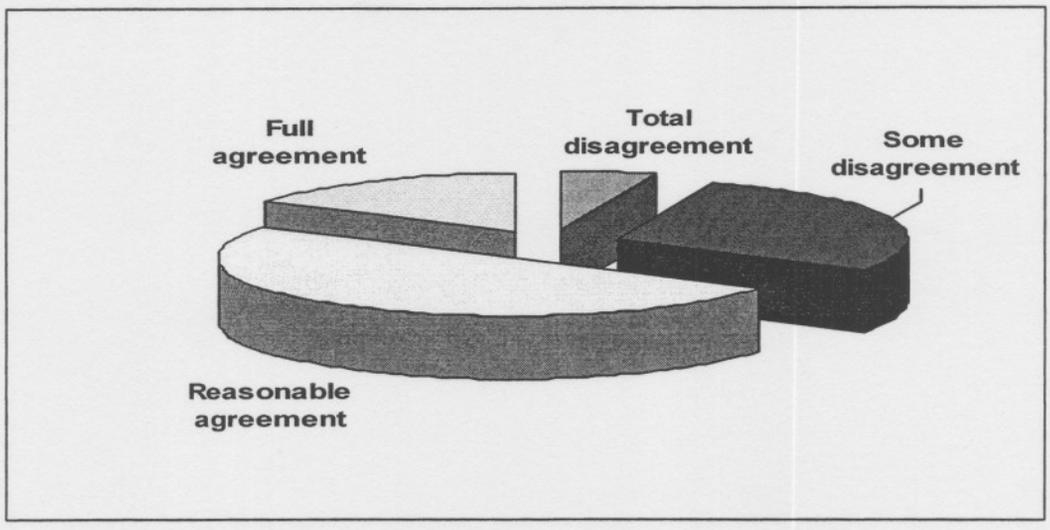


- **Cooperation in a team**

Figure 5.42 clearly shows, that 50 % of the respondents selected *reasonable agreement* that graduates cooperate in a team.

Three respondents (5,36 %) were in *total disagreement* with the question asked, while 28,57 % selected *some disagreement*. *Full agreement* was selected by 16,07 % of the respondents.

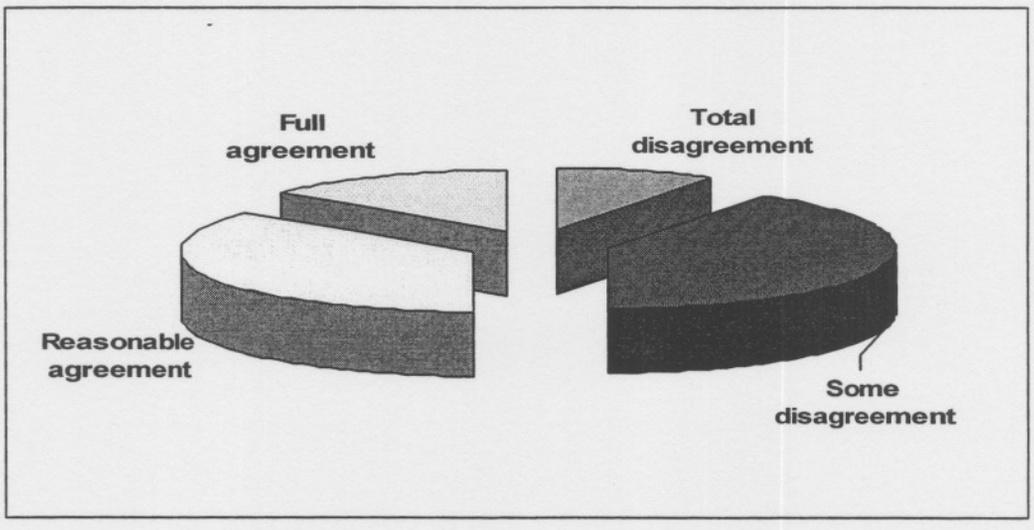
Figure 5.42: Cooperation in a team: Distribution of responses



- **Flexibility**

According to figure 5.43, 8,93 % of the respondents' selected *total disagreement*; 41,07 opted for *some disagreement* and 35,71 % *reasonably agreed,* that graduates were flexible regarding their interpersonal skills. Finally, 14,29 % *fully agreed* to the question asked.

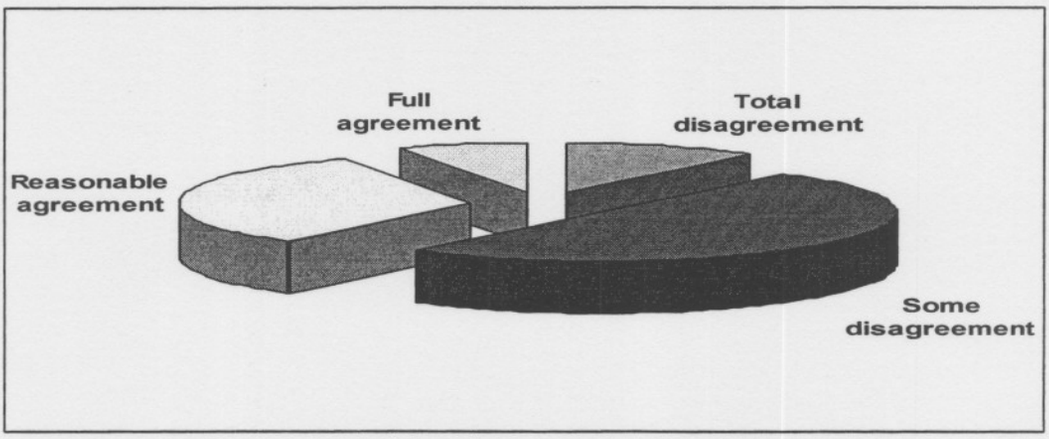
Figure 5.43: Flexibility: Distribution of responses



- **Self-discipline**

It is clear from figure 5.44 that 50 % of the respondents experienced *some disagreement*. The other half of the figure is dived into *total disagreement* (10,71 %), *reasonable agreement* (32,14 %) and *full agreement* (7,14 %).

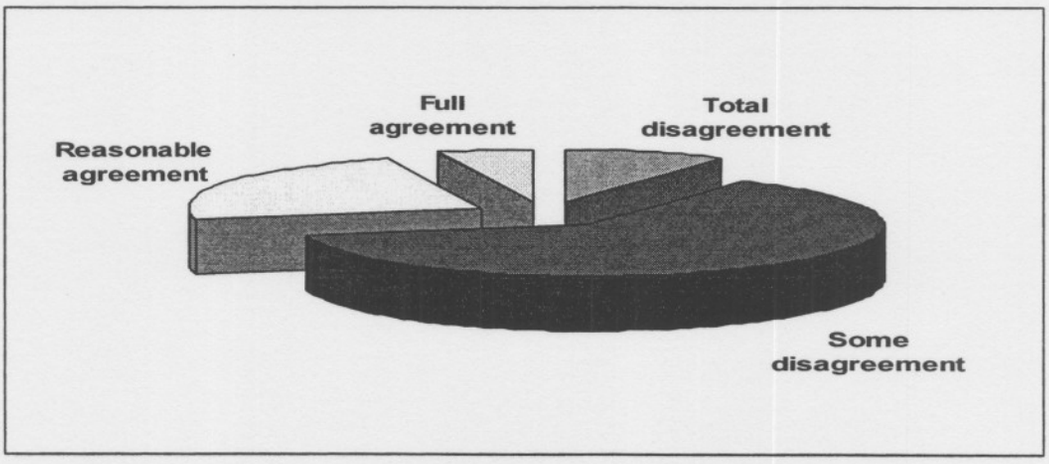
Figure 5.44: Self-discipline: Distribution of responses



- **Self-management**

Most respondents (62,50 %) indicated *some disagreement*. Figure 5.45 further shows that 23,21 % of the respondents selected *reasonable agreement, while* 5,36 % indicated, that they are in *full agreement*. Five respondents (8,93 %) chose the total disagreement option.

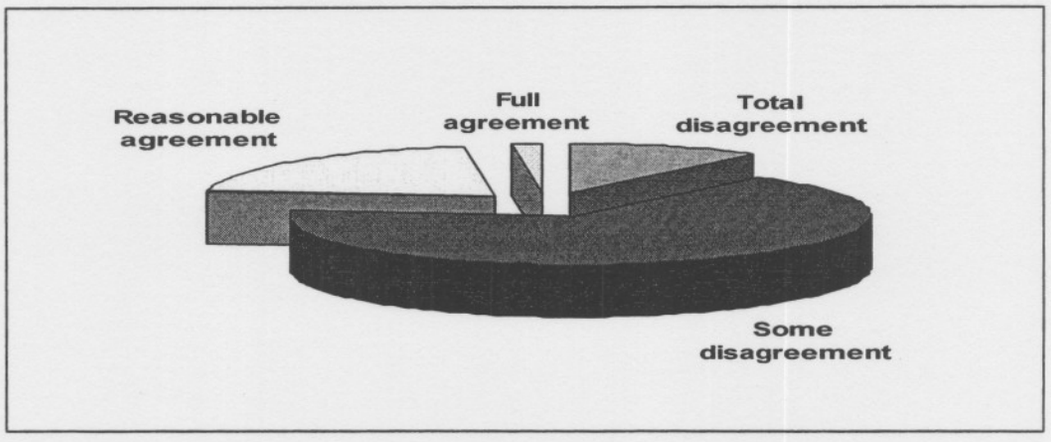
Figure 5.45: Self-management: Distribution of responses



- **Leadership**

Figure 5.46 indicates, that the leadership competency was evaluated as follows: *total disagreement* (10,71 %), *some disagreement* (66,07 %), *reasonable agreement* (21,43 %) and *full agreement* (1,79 %).

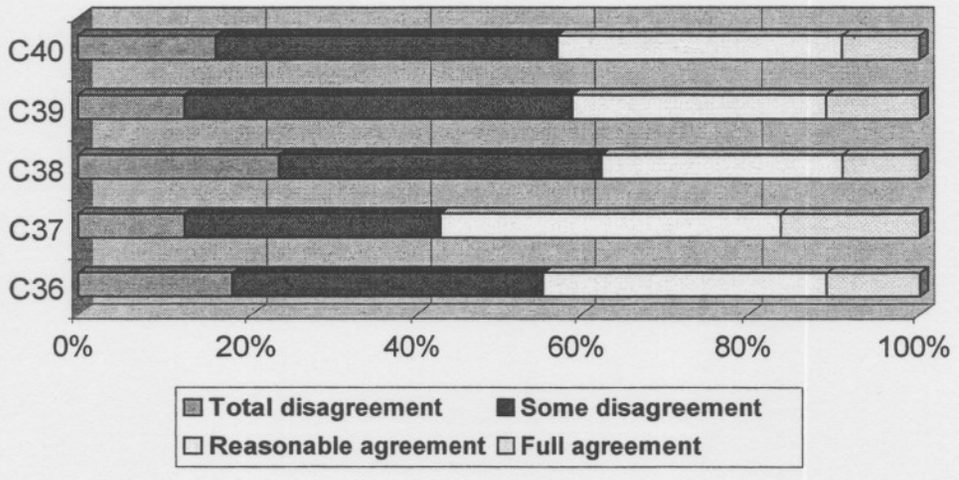
Figure 5.46: Leadership: Distribution of responses



- **An overview of graduates' interpersonal skills**

Figure 5.47 shows an overview of the distribution of responses for the various competencies under interpersonal skills.

Figure 5.47: Interpersonal skills: An Overview



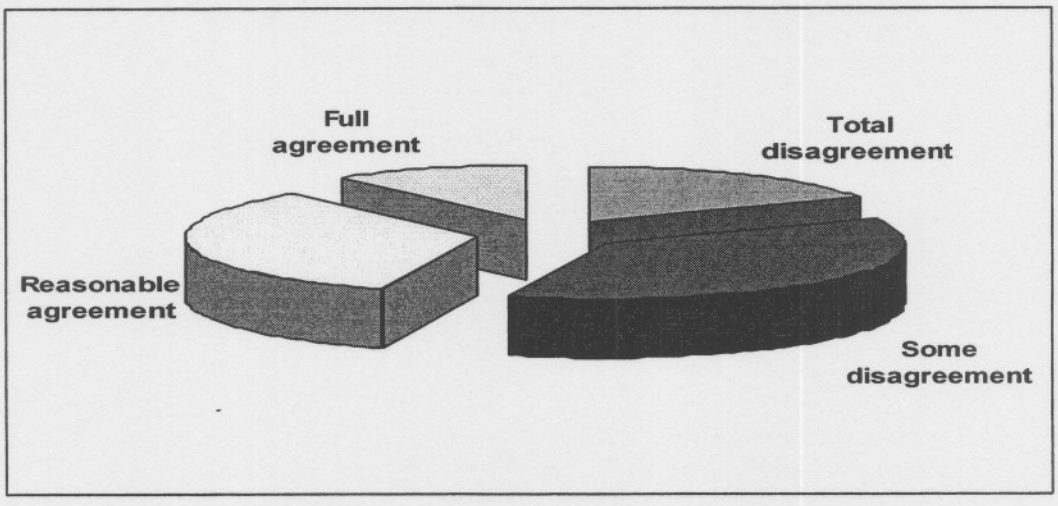
5.5.5 Work ethics

The fifth skill identified by the researcher, was that of work ethics. Goospaster (1998:51) defines work ethics as the study of business action, either individual or corporate, with special attention to this moral adequacy.

- **Awareness of ethical responsibilities**

Figure 5.48 shows that the responses were divided into the following percentages: *total disagreement* (17,86 %), *some disagreement* (37,50 %), *reasonable agreement* (33,93 %) and *full agreement* (10,71 %).

Figure 5.48: Awareness of ethical responsibilities: Distribution of responses



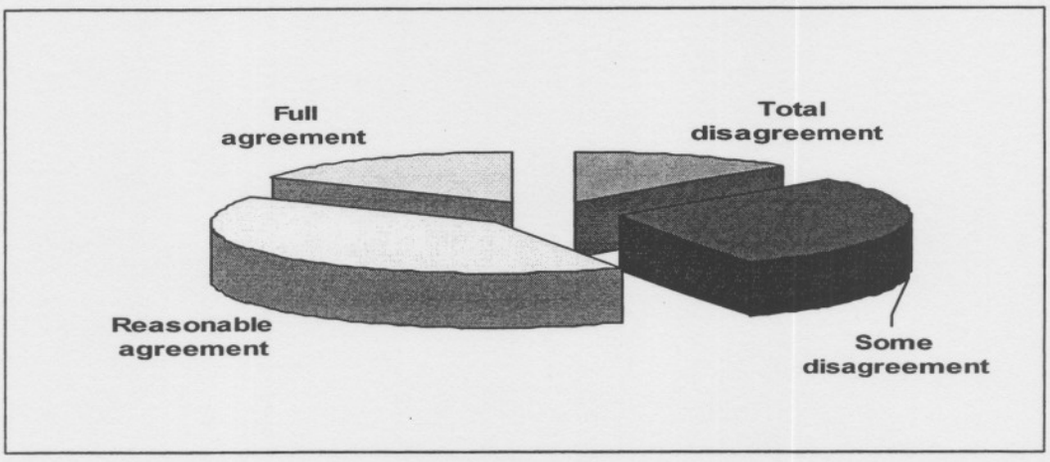
The response is not acceptable and learners must be made aware that ethical responsibilities are part of the workplace.

- **Honesty**

Figure 5.49 shows that 16,07 % of the respondents indicated *full agreement.* The figure further shows that 41,07 % indicated that they were in *reasonable agreement*; 30,36 % indicated *some disagreement* and 12,50 % *total*

disagreement. The majority of the respondents (57,14 %) are satisfied that graduates were honest.

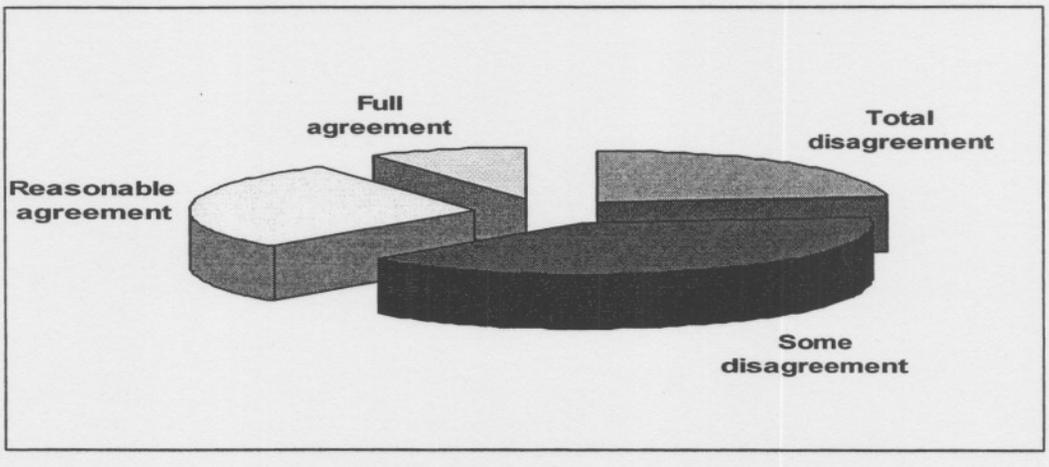
Figure 5.49: Honesty: Distribution of responses



- **Punctuality**

Figure 5.50 clearly indicates, that 23,21 % of the respondents selected *total disagreement*. The figure shows that a further 39,29 % selected *some disagreement* and 28,57 % *reasonable agreement*. Five respondents (8,93 %) selected *full agreement*. It must be realised, that in order to be part of world-class companies, first- world rules must serve as the norm.

Figure 5.50: Punctuality: Distribution of responses

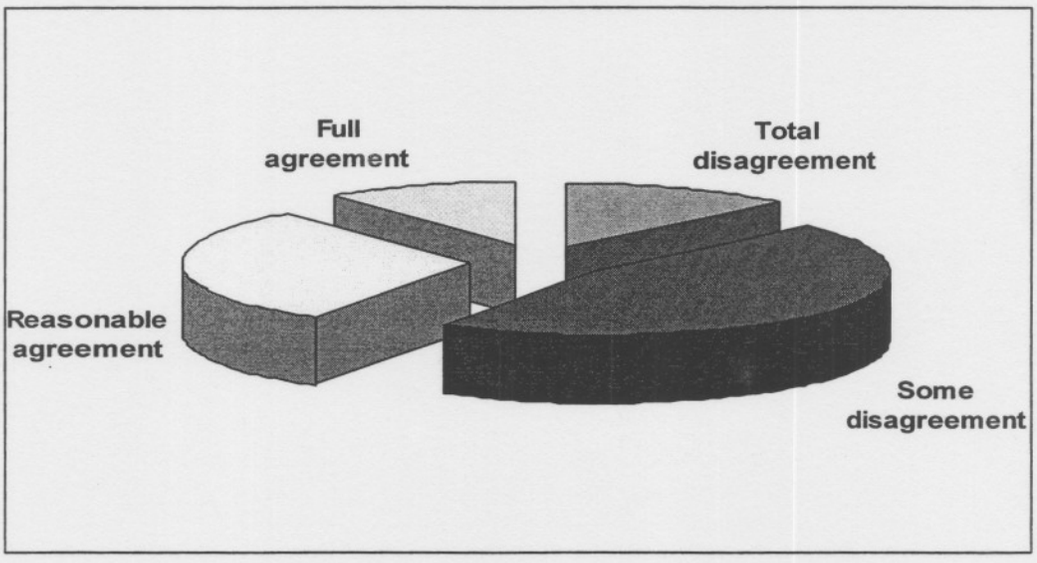


- **Conscientiousness**

According to figure 5.51, 12,50 % of the respondents indicated, that they were in *total disagreement*; 46,43 % chose *some disagreement* while 30,36 % chose *reasonable agreement*.

The percentage choosing *full agreement,* was 10,71 %.

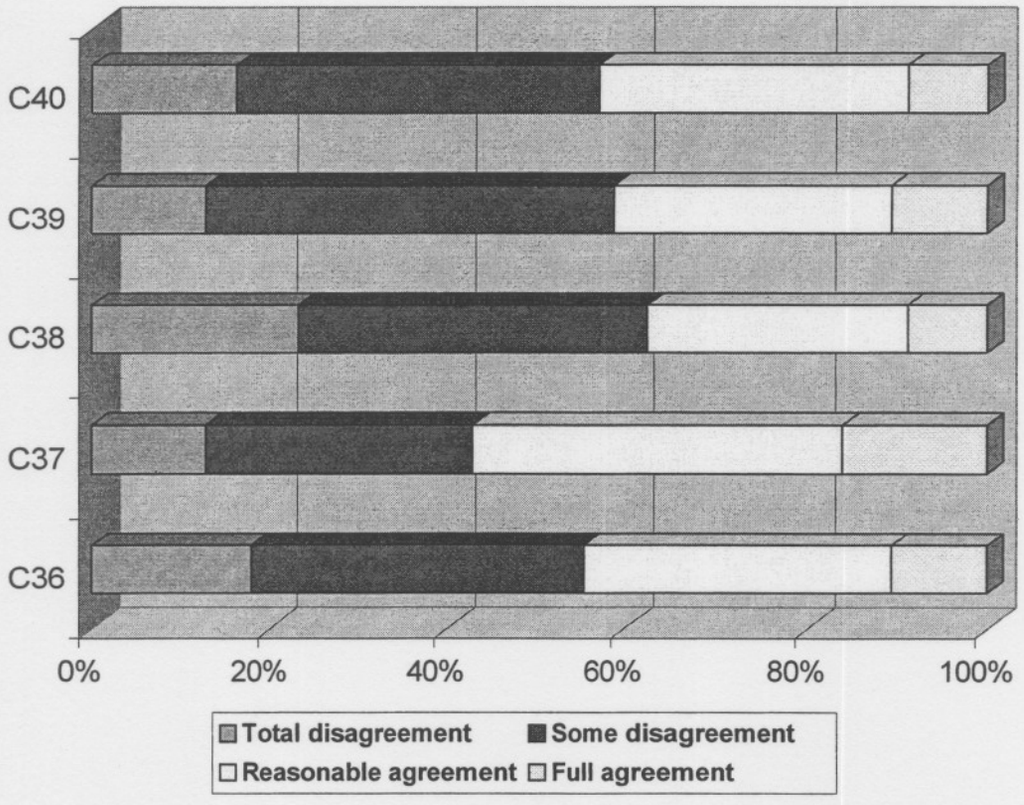
Figure 5.51: Conscientiousness: Distribution of responses



- **An overview of work ethics**

Figure 5.52 gives an overview of the distribution of responses for the various competencies under work ethics.

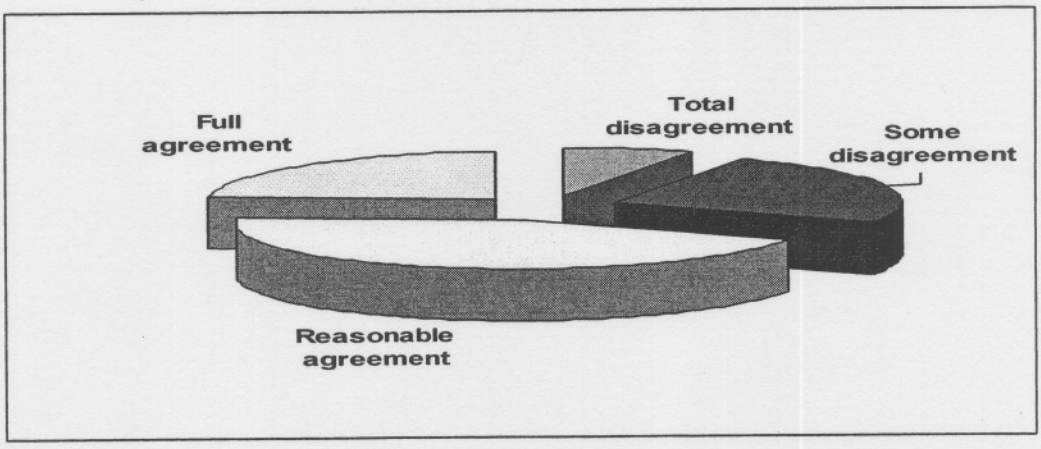
Figure 5.52: Work ethics: An Overview



5.5.6 Computer Literacy

Respondents were requested to give an overall assessment of graduates' computer literacy. Figure 5.53 shows, that 23,21 % were in *full agreement,* that graduates were computer literate, 44,64 % opted *reasonable agreement* while 25,00 indicated *some disagreement*. A minority of four respondents (7,14 %) selected *total disagreement* and were of the opinion, that graduates were not computer literate at all. Computer Skills are offered on a NQF level 4 and this could be the reason why students are not computer literate, according to employers' standards. Not all the courses expect students to hand in typed assignments, which implies that students are not forced to use the computer after they had been examined in their first year.

Figure 5.53: Computer Literacy: Distribution of responses

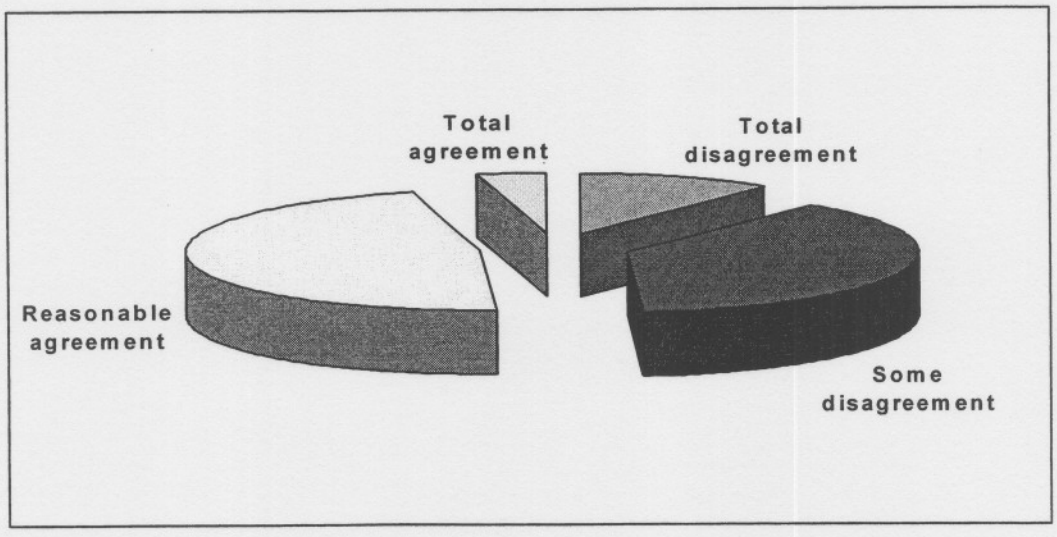


5.6 OVERALL RATING OF EMPLOYABLE SKILLS

❑ Job-seeking skills: Overall rating

According to the distribution of responses indicated in figure 5.54, the overall rating for job seeking skills are as follows: a total of 10,91 % of the respondents selected *total disagreement*; 38,18 % selected *some disagreement*; 47,27 % selected *reasonable agreement*; while only 3,64 % of the respondents were in *full agreement*.

Figure 5.54: Overall rating of graduates' job seeking skills

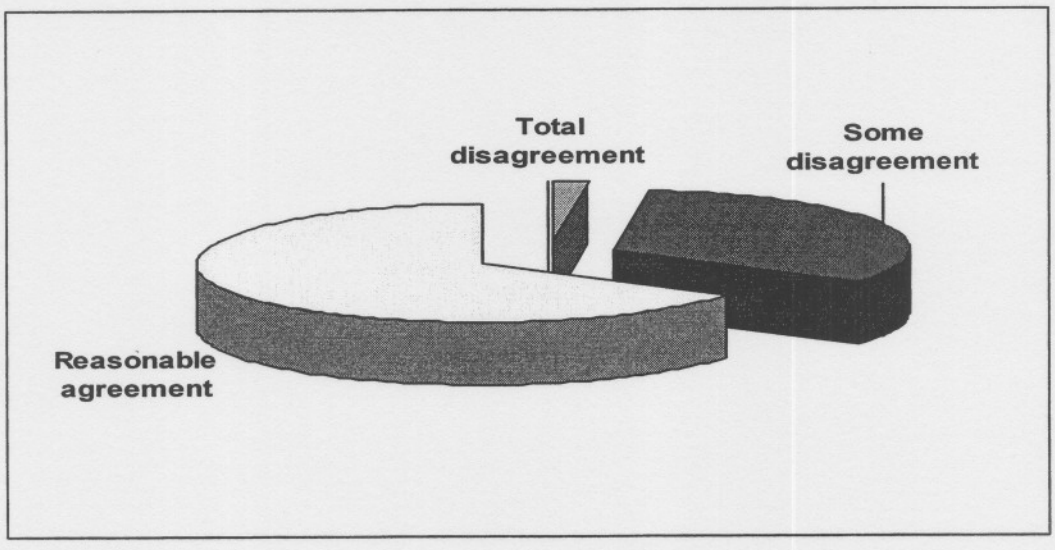


- **Academic skills: Overall rating**

The overall rating of graduates' academic skills, as indicated in figure 5.55, is divided into 1,82 % for *total disagreement*, 32,73 % for *some disagreement and* 65,45 % for *reasonable agreement.*

None of the respondents selected *full agreement.*

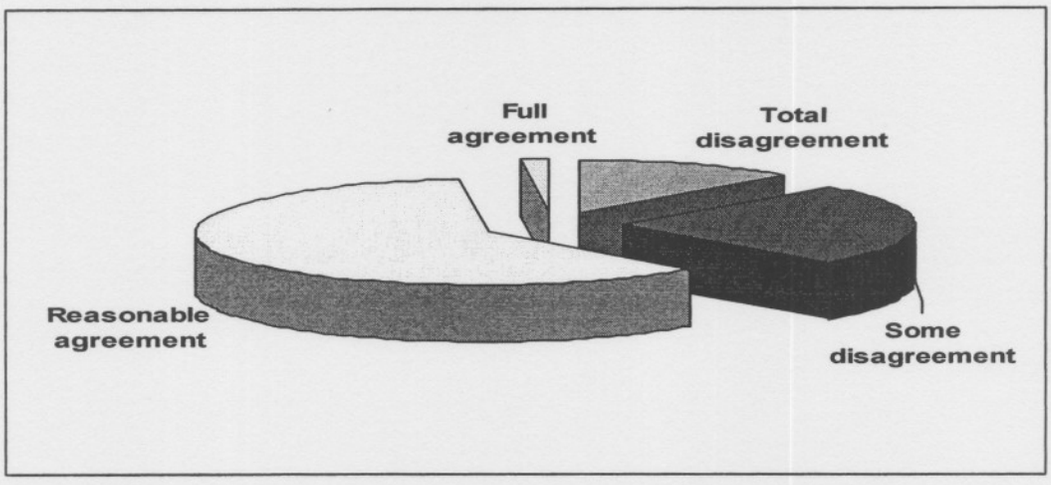
Figure 5.55: Overall rating of graduates' academic skills



- **Personal/career management: Overall rating**

According to the distribution of responses indicated in figure 5.56, the overall rating for personal/career management skills, is as follows: a total of 12,50 % of the respondents selected *total disagreement*; 25, 00 % selected *some disagreement*; 60,71 % selected *reasonable agreement*; and only 1,79 % of the respondents were in *full agreement.*

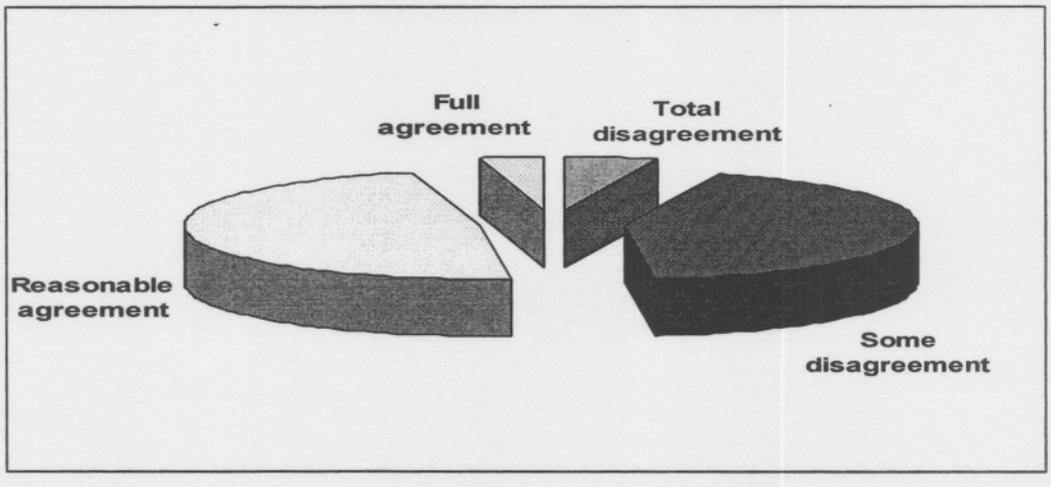
Figure 5.56: Overall rating of graduates' personal/career management skills



- **Interpersonal skills: Overall rating**

According to the distribution of responses indicated in figure 5.57, the overall rating for interpersonal skills indicates the following: A total of 5,36 % of the respondents selected total disagreement; 42,86 % selected some disagreement; 48,21 % selected reasonable agreement; and only 3,57 % of the respondents were in full agreement.

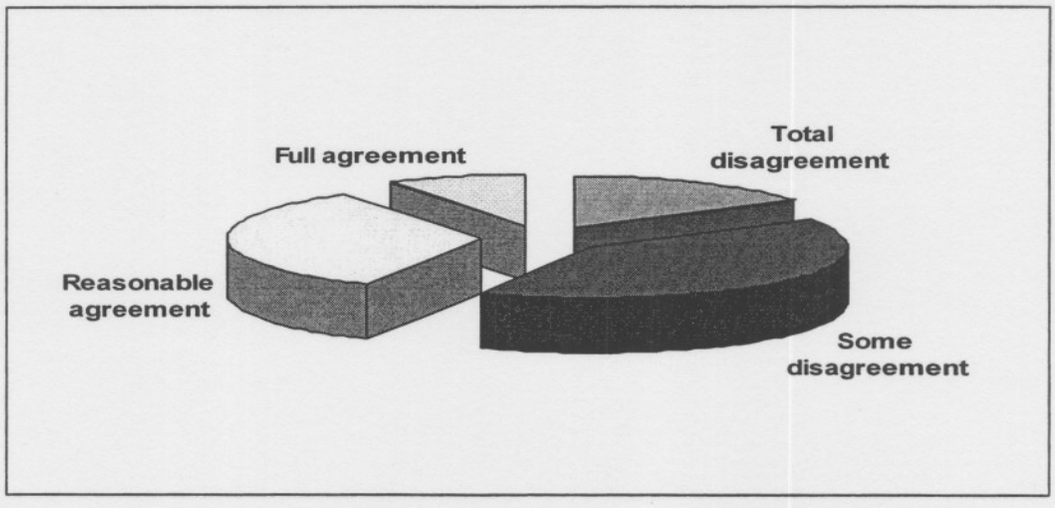
Figure 5.57: Overall rating of graduates' interpersonal skills



- **Work Ethics: Overall rating**

According to the distribution of responses indicated in figure 5.58, the overall rating for work ethics, was as follows: a total of 16,07 % of the respondents selected total disagreement; 41,07 % selected some disagreement; 33,93 % selected reasonable agreement; and only 8,93 % of the respondents were in full agreement.

Figure 5.58: Overall rating of work ethics



The overall rating for each of the employable skills, received a relatively acceptable score and the researcher is of the opinion, that if the shortages that were highlighted by the respondents, should be addressed, learners would be better equipped for the global workforce. The researcher will aim, in the following chapter, to give a solution on how to address the lack in certain competencies.

5.7 CONCLUSION

The results obtained from the empirical investigation, were analysed and discussed in this chapter. Section A provided evidence regarding the respondent. This was followed by Section B, that evaluated whether the Critical Cross-Field Outcomes were implemented into the curricula. Section C was

compiled in order to determine the employable skills expected from graduates on their entering into the workplace.

The results obtained, strengthened the researcher's view, that employers expect graduates to possess certain skills to cope in the workplace. These results will be used to develop an Employable Skills Model. The competencies identified in this chapter, will be used to develop an Employable Skills Model. In chapter six the researcher will make recommendations on how to implement the model into the current curricula of management sciences at Higher Education Institutions in South Africa.

CHAPTER 6

EMPLOYABLE SKILLS MODEL FOR LEARNERS IN THE FACULTY OF MANAGEMENT SCIENCES

6.1 INTRODUCTION

The increased competitiveness of Higher Education, mainly due to globalisation, has forced Higher Education Institutions to take greater cognisance of employers' demands. Employers are representatives from industry, that constitute the third leg in Higher Education, as illustrated in figure 2.2. Industry is Higher Education's external customer and if they are not satisfied with the final product provided by Higher Education Institutions, graduates will become obsolete. This might lead to a scenario in which there will be no need for the product (graduates), and the purpose of certain courses at Higher Education Institutions will have to be rethought.

As mentioned in section 2.4.3.2, global competition and rapid technological change have been the driving forces for a more flexible and competent workforce. Industry expects graduates to add value to world-class companies. Graduate training and skills development has received an unprecedented level of attention, especially form employers i.r.o. the quest to enhance the graduate-employer match and to reduce the level of unemployment, across the years (Ghulam and Bagley, 1989:32).

The strong focus on the slowly growing South African economy and the need for a highly skilled workforce, has put tremendous pressure on Higher Education Institutions to provide a product that is well sought after and that possesses qualities that differentiate them from other Institutions.

The main aim this of the study, is to develop a model that will address the need for employable skills expected from graduates by employers on entering the workplace. The model should enable the enhancement of the curriculum in order to provide a well-balanced and sought-after graduate on completion of a three-year degree.

Within the scope of chapter five, the results obtained from the empirical investigation, were analysed by means of various statistical methods and techniques. The questionnaire offers valuable feedback, reflecting on the expectations employers have when employing graduates on the completion of their qualification at a Higher Education Institution.

Chapter six lists all the competencies evaluated in the questionnaire. The competencies that received negative feedback will be discussed when explaining the model and those that were acceptable, will be discussed at the end of each section.

6.2 CRITICAL CROSS-FIELD OUTCOMES

It is expected form Higher Education Institutions, to include the critical cross-field outcomes in each of the programmes at the Institution. As mentioned earlier, it is evident from the literature study, that curriculum developers do not adhere to the guidelines. In order to test this statement, it was decided to include section B in the questionnaire.

Each respondent had the opportunity to evaluate whether he/she are satisfied that graduates possess the critical cross-field skills or not. Following from section 2.7.3, the seven critical cross-field outcomes (CCFOs) are repeated in table 6.1 in order to provide a basis for the follow-on discussion.

Table 6.1: Critical Cross- Field Outcomes

Outcome	Critical cross-field outcome	Description
1	Problem-solving Skills	The ability to identify and solve problems, with responses showing that responsible decisions have been made, using critical and creative thinking.
2	Teamwork	The capability to work effectively with others as a member of a team, group, organisation and community
3	Self-responsibility Skills	The ability of individuals to organise and manage themselves and their activities responsibly and effectively.
4	Research Skills	The ability to collect, analyse, organise and critically evaluate information.
5	Communication Skills	The ability to communicate effectively by using visual, mathematical and/or language skills in the modes of oral and/or written presentation.
6	Technological and Environ-mental Literacy	The ability to use science and technology effectively and critically, showing responsibility towards the environment and the health of others.
7	Developing Macro-Vision	Demonstrating an understanding the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.

Source: Ramphele (ny:8-9)

According to the results discussed in section 5.4, it is clear from the responses of the employers, that graduates do not possess the skills as specified in the Critical Cross-Field Outcomes 1; 3; 4; and 7. These are briefly as follows:

- Problem-solving skills
- Self-responsibility skills
- Research skills
- Developing Macro-vision skills.

The respondents were satisfied that graduates possess the following CCFO's.

- **Teamwork skills**

Teamwork is a common feature of the contemporary workplace. Given the individualistic tendency of university study, teamwork may be an aspect i.r.o. which graduates receive little preparation in their studies. Although teamwork is concerned with employees working together to achieve a project goal, it is feasible to assume that achieving this goal relies on a degree of understanding and support between team members. Graduates' ability to work in a team proves to be important for job success, regardless of the size or activity of a company (Crosling and Ward, 2002:51).

- **Communication skills**

Communication skills are the effective use of visual, mathematical and language skills in the modes of oral and/or written presentation. The importance of this skill, cannot be overemphasised and lecturers regularly revise the curriculum to address the changing needs of industry. The successful implementation of Vocational English I and II at the Faculty of Engineering at the VUT, lead to the resolution, that these two modules are compulsory for all learners at this University. Vocational English addresses the need to improve the students' vocabulary and grammar, wereafter they attend Communication Skills that is aligned with the outcomes of the specific programme that they will need in the workplace.

- **Technological and environmental literacy skills**

Technological and environmental literacy skills are defined as the ability to use science and technology effectively and critically, showing responsibility towards the environment and the health of others.

The fact that more than 50 % of the critical cross-field outcomes rate unsatisfactorily, indicate that curriculum developers need to go back to the drawing board and decide how these outcomes can be implemented. The researcher is of the opinion, that a Higher Education Institution cannot consider to improve courses if the fundamentals, in this instance the critical cross-field outcomes, are not in place.

6.3 EMPLOYABLE SKILLS

The aim of this study, was to determine the employable skills employers expect from graduates on their entering the workplace. The literature study emphasised several skills and competencies. The information was used to select six skills consisting of several competencies. The data were analysed in section 5.5 and the outcome is given below. Each skill will differentiate between the positive and negative feedback received from respondents.

6.3.1 Job-seeking skills

Job-seeking skills can be described as the skill graduates need to possess before their entering the competitive workplace. Job-seeking skills are the first phase towards acquiring a job.

It is clear from section 5.5, that the following job-seeking skills received a positive response.

- Compilation of a professional Curriculum Vitae
- Dressing appropriately for their interview
- Conducting oneself appropriately during the interview.

The job-seeking skills listed below, received a negative response:

- Submitting a well-prepared application
- Compilation/presenting a portfolio of evidence

6.3.2 Academic skills

Academic skills are the theoretical subject knowledge that a graduate must apply in the workplace and the ability to retrieve and process information in order to complete an assignment.

Respondents rated the following academic skill as being positive.

- Demonstrating a willingness to learn.

The following academic skills were negatively rated.

- Applying theoretical knowledge in word-related situations
- Simulating information
- Demonstrating analytical thinking
- Combining ideas of information in new ways
- Organising ideas
- Presenting information in different formats

6.3.3 Personal/Career management skills

Career management is a process by which individuals develop awareness about their own strengths, weaknesses, values and interests; also identifying goals and opportunities and establishing plans for the achievement of these goals.

Respondents rated the following personal/career management skills as being positive.

- Acquiring, organising, interpreting and evaluating information regarding a career
- Engaging in continuous learning
- Demonstrating a positive self image
- Displaying initiative in a career.

The personal/career management skills that were rated negatively, are the following.

- Conducting career self-assessment
- Identifying and pursue their career goals
- Demonstrating effective time management
- Demonstrating effective stress management
- Adapting to the dynamics of the workplace
- Accepting responsibility.

6.3.4 Interpersonal skills

Interpersonal skills can be defined as dealing effectively with the emotional reactions of others, having smooth interaction with others and having positive relationships with people (DuBrin, 1997:2).

Respondents were positive that graduates posses the following interpersonal skills.

- Self-confidence
- Cooperation in a team.

The following interpersonal skills were rated negatively.

- Self-control
- Initiative
- Assertiveness
- Self-discipline
- Self-management
- Leadership
- Flexibility.

6.3.5 Work Ethics

The study of ethics is the study of human action and its moral adequacy. Goodpaster (1998:51) defines work ethics as the study of business action, either individual or corporate, with special attention to its moral adequacy.

Respondents rate the following work ethics skill as being positive.

- Honesty.

Respondents did not agree that graduates posses the following work ethics skills.

- Awareness of ethical responsibilities
- Punctuality
- Conscientiousness.

6.3.6 Computer literacy

Computer literacy is defined by Hutchinson and Sawyer (2000:1.3,1.4) as possessing sufficient knowledge and understanding of how computers work and

what a computer is capable of, whereas computer competency leads to skills that provide the user with the ability to operate the computer effectively. This implies, that a user becomes computer literate by learning specific terminology, concepts and skills.

Respondents were requested to give an overall assessment of graduates' computer literacy. The majority of the respondents (67,85 %), agreed that graduates possess computer literacy.

Excluding the overall assessment of each skill, 36 questions were posed. Twelve of these questions received a positive response and the remaining 24 questions were not agreed to.

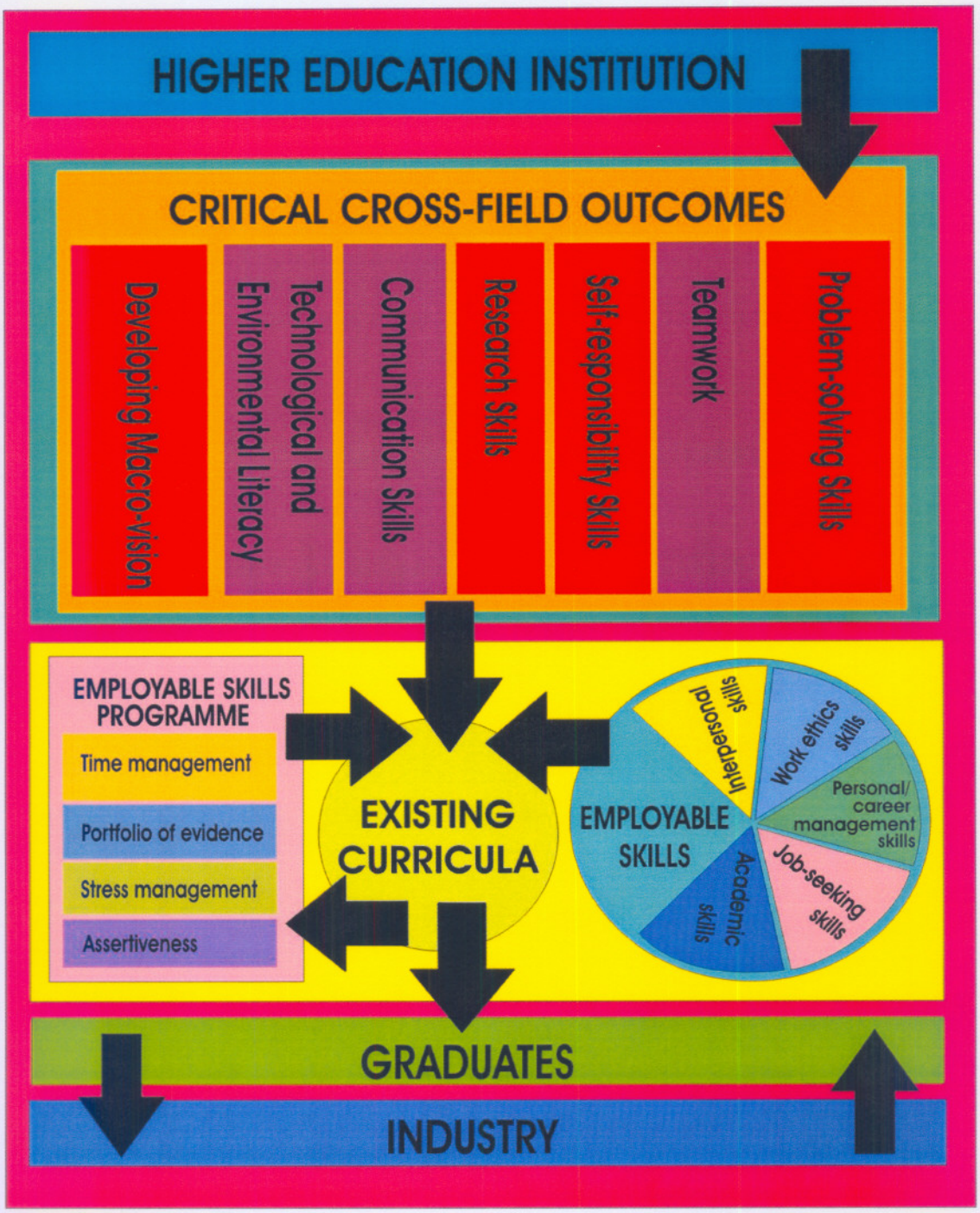
6.4 EMPLOYABLE SKILLS MODEL (ESM)

In the South African job market, where South Africa begins to step into the global market, skills are in short supply and it is clear that to survive in the new, tougher job market, certain skills are essential, counting more than degrees and qualifications.

Figure 6.1 is a graphic presentation of the employable skills model that the researcher recommends, in order to address the skills needed by industry from graduates entering the workplace for the first time.

An overall discussion will be given, after which each competency will be discussed in detail. The researcher will make suggestions on how to implement each competency, while the lecturer has to remain comfortable with the process and apply the information in the best possible way.

Figure 6.1: Employable Skills Model



Source: Own Research

As illustrated in figure 6.1, the research yielded five possible skills with regard to the employable skills expected by employers from graduates entering the workplace for the first time. The critical cross-field outcomes that need more attention, are also integrated in the model. The model clearly indicates which competencies can be infused into the curricula, but the content of certain competencies need to be addressed as a separate course. The researcher will give an interpretation of how these competencies can be addressed. Although this will serve as a guideline, the uniqueness of each subject, in collaboration with industry, will determine how the curriculum should be developed and implemented so as to effectively address these competencies.

The Employable Skills Model consists of the following sections:

- Implementation of the Critical Cross-Field Outcomes
- Employable Skills Programme
- Integration of employable skills into curriculum

Each of these will be discussed in detail in the next sections.

6.4.1 Implementation of critical cross-field outcomes

The critical cross-field outcomes (CCFO's) developed through a process of consultation with stakeholders in the education and training sectors, and finalised by SAQA, are the basic, general or generic outcomes, which underlie all teaching and learning and which all learners need to achieve at all levels of their development. Critical outcomes relate to the knowledge, skills, attitudes and values that all learners must attain in order to help them to be successful in life, within a variety of contexts and also to contribute to their communities and the country as a whole (Janse van Rensburg and Potloane, 1998:29).

Critical cross-field outcomes provide the means to build a career and to make the person more effective in executing a job. CCFO's are working principles, and as such, they should direct teaching, training and education practices and the development of learning programmes and materials. In other words, all learning area outcomes, as well as specific outcomes, should flow from the CCFO's (Lubisi, Wedekind, Parker and Gultig, 1997:11).

The implementation of the critical cross-field outcomes (SAQA, 1997:10; SAQA, [s.a.]: 29-30; Luczyn and Pretorius, 1998: unit 3: 7-8, Ramphele [s.a]: 8) (SAQA, 1997:10; SAQA, [s.a.]: 29-30; Luczyn and Pretorius, 1998: unit 3: 7-8, Ramphele [s.a]: 8) assures, that learners will be able to:

- identify and solve problems, with responses showing that responsible decisions have been made by using critical and creative thinking;
- work effectively with others as a member of a team, group, organisation, and community;
- organise and manage themselves and their activities responsibly and effectively;
- collect, analyse, organise and critically evaluate information;
- communicate effectively by using visual, mathematical and/or language skills in the modes of oral and/or written presentation;
- use science and technology effectively and critically showing responsibility towards the environment and health of others; and
- demonstrate an understanding of the world as a set of related systems, by recognising that problem-solving contexts do not exist in isolation.

Based on the questionnaire results, the following critical cross-field outcomes, as indicated in the model, need to be addressed in the curricula and lecturers need to find a means of incorporating these into the teaching programs.

- **Problem- solving skills**

The first critical cross-field outcome can be defined as graduates' having the ability to identify and solve problems, with responses showing that responsible decisions have been made by using critical and creative thinking.

Natarajan (2000:91) mentions, that graduates must have the ability to handle both open-ended and poorly-defined problems. They must have the ability to undertake problem-identification, formulation and solution.

According to Kohl (1998:255), acquiring problem-solving skills, implies learning how to observe, question, listen and experiment. It also implies, that modes of thinking should be taught explicitly and not merely incorporated in different subjects.

Lecturers can start with basic problem-solving techniques in the students' first year of study. A variety of techniques can be used and the degree of complexity must be raised at each level. The objective is to find ways to increase the practical component of the curriculum, so that it correlates with the reality of the workplace.

- **Self-responsibility skills**

Critical cross-field outcome 3, self-responsibility skills, is defined as the ability of individuals to organise and manage themselves and their activities responsibly and effectively.

Lecturers need to simulate the workplace in the classroom. Therefore, the same rule that applies in industry, must be adhered to in the classroom and indeed in respect of the following.

- Punctuality
- Quality of work handed in for assessment
- Adhering to deadlines
- Showing enthusiasm for tasks performed.

- **Research skills**

As mentioned in table 6.1, the ability to collect, analyse, organise and critically evaluate information, is defined as CCFO 4, research skills.

Taking the research process into consideration, the researcher is of the opinion, that students must have the following abilities at the end of their studies.

- Retrieving relevant information
- Distinguishing between relevant and helpful information
- Reasoning critically and creatively
- Presenting the information in an acceptable format
- Using the correct referencing method
- Compiling a research report

Each qualification could determine a subject or two that would build research skills into the outcomes for that specific qualification. Research can then be acquired and applied, by giving different assignments that start with basic skills in the first year and build up to a research report in their final year of study.

- **Developing macro vision skills**

  CCFO 7 comprises the development of macro-vision skills. The importance of developing students to become competitive in a globalised economy, cannot be sufficiently emphasised. Developing macro-vision is defined the phenomena of demonstrating an understanding of the world as a set of systems, by recognising that the problem-solving context does not exist in isolation.

  Lecturers need once again to relate the theoretical concepts to the workplace. A further requirement is, that lecturers keep up to date with change in the global market, in order for them to bring the impact of these changes to the classroom. Students need to be taught from their first year, that theory only will not guarantee them a job. South Africa is rapidly becoming a global player to reckon with and world-class companies are becoming the norm.

  Employers are aware, that they can select the best candidates and graduates who posses more than theoretical knowledge who will ultimately have an advantage over those who do not. The Higher Education Institution that really puts an effort into implementing these seven critical cross-field outcomes, will provide their students with a competitive advantage.

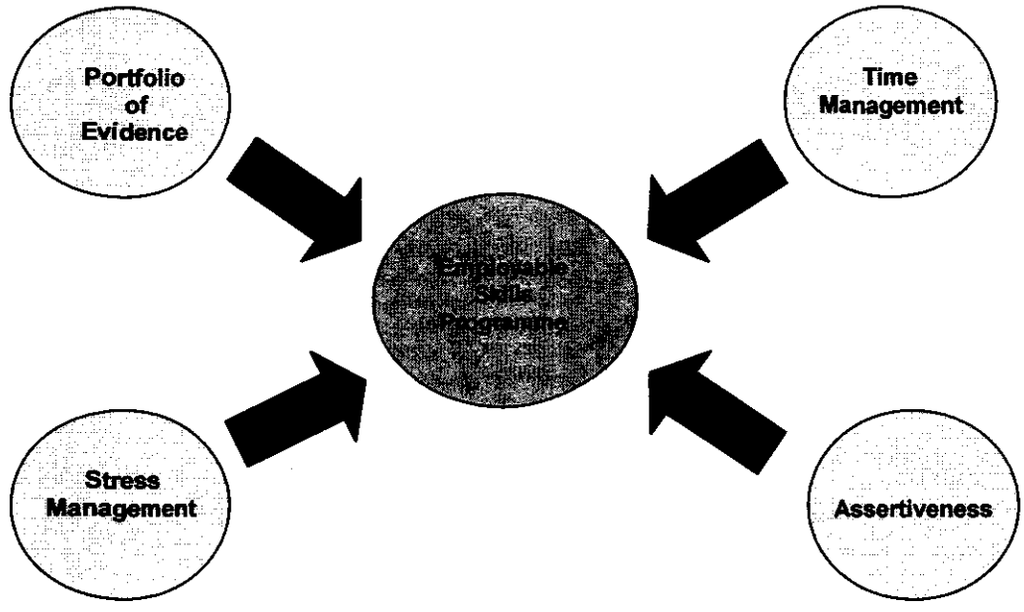
Although the researcher only discussed only the four CCFO's that had a poor response rate, the three remaining critical cross-field outcomes must adhere to the current standards, or can even be improved over time.

6.4.2 Employable Skills Programme

The researcher is of the opinion, that the following competencies should be presented as an employable skills programme (ESP), as they cannot be

integrated into the core curriculum without teaching the fundamentals first. Due to the nature and importance of employable skills, it is proposed, that the competencies be curriculated as specific units of a module and be called the employable skills programme. The composition of the Employable Skills Programme is illustrated in figure 6.2.

Figure 6.2: Employable Skills Programme



Source: Own Research

The Employable Skills Programme will ensure, that emphasis is placed on these four competencies, in order to address the current deficiencies of graduates. Each of these four competencies will be discussed separately.

- **Portfolio of evidence**

The first unit of the Employable Skills Programme (ESP) that was evaluated under job-seeking skills is the ability to compile a portfolio of evidence. A portfolio

of evidence, sometimes called profiles or records of achievement, should get students to reflect on their achievements by collecting and presenting supportive evidence, identifying and then acting on, priorities for development (Knight and Yorke, 2003:5).

The researcher suggests that an academic portfolio of evidence should be compiled for the two main subjects that students enrol for. A second portfolio of evidence must be presented in their final year, that will serve as proof of their achievements and that can be presented when attending an interview. Each department can present the unit at the beginning of an academic year to all first-years enrolled in that department. This will assist students to keep their portfolio up to date.

- **Time management and effective stress management**

The second and third units of the Employable Skills Programme (ESP) are time management and stress management. The reason for discussing these two competencies simultaneously, is that the Department of Student Counselling at the VUT presents both courses on a regular basis to any student who would like to attend them.

The researcher is of the opinion, that if graduates know how to manage their time, they will not experience stress due to assignments that are handed in late or not having enough time to study for a test. Once again, the course has to presented at the beginning of the academic year and students can be encouraged to attend the courses in their second and final years if they experience difficulties in managing their time or stress.

- **Assertiveness**

The fourth unit of the Employable Skills Programme (ESP), is assertiveness. The influence and inter-relationship of stress management, time management and assertiveness, will enhance the development of students' employable skills.

The students will benefit if a course on assertiveness can be presented at the beginning of the year. A basic knowledge on assertiveness will empower the student to make decisions that will reduce their stress.

The Employable Skills Programme that consists of four units, will add value to the students' day-to-day lives in coping with the academic responsibilities. The researcher is once again of the opinion, that these units should be presented at the beginning of the students' studies, so that they can reap the benefits and implement them on a daily basis.

6.4.3 Integration of Employable Skills into Curriculum

It was discussed in section 6.4.2, that the four mentioned competencies could not be successfully integrated into the curriculum and, therefore, a separate Employable Skills Programme should be developed. However, the researcher is of the opinion, that the five employable skills mentioned in this section, can be and should be integrated into the curriculum.

The responses received from the respondents, statistically proved, that employers are of the opinion that graduates' computer literacy skills are adequate. Therefore, only five employable skills remain.

These skills, consisting of several competencies, will be discussed in detail. The researcher suggests that these competencies be infused into the current curricula and applied on a continuous basis.

6.4.3.1 Job-seeking skills

Two of the five competencies under job-seeking skills rated negatively. The competency, portfolio of evidence, will be offered as a separate unit, as discussed in section 6.4.2. Respondents were of the opinion, that graduates do not present a well-prepared job application. All the students following a course in Management Sciences at the Vaal University of Technology need to enrol for the course in Communication Skills. Lecturers responsible for this course should take note that students do not know how to submit a well-prepared job application and special attention must be given to this part of the curriculum.

6.4.3.2 Academic skills

Davis and Miller (1996:74) are of the opinion, that a foundation skill is learning to learn. Newton (2001: 34) adds to this statement, that in today's society, graduates must actively pursue the goal of life long-learning.

The following competencies are discussed under academic skills.

- **Apply theoretical knowledge in work-related situations**

As mentioned earlier, one can assume, that graduates posses a vast amount of theoretical knowledge after completing a three-year degree. Respondents are, however, of the opinion that students do not know how to apply this theoretical knowledge in work-related situations. The lecturer

should take the responsibility of bringing the work situation into the classroom. An example is, to give case studies to the students where they have to apply the theory and provide a solution to the problem identified in the case study.

- **Simulate information**

This competency overlaps with the critical cross-field outcome, research skills. Students can receive simple assignments regarding their field of study in order to gather information. The library also offers an orientation course, where students are shown how to use the library and retrieve information. Students can make use of textbooks or use the Internet facility. Students also have access to several academic Web-pages that can be used for the retrieval of information. Hereafter, they have to simulate the information in a sensible form. Lecturers should provide clear guidelines on how to simulate the information and then assess the students' accordingly.

- **Demonstrate analytical thinking**

The curriculum makes sufficient provision for the acquisition of theoretical knowledge. Lecturers should enhance opportunities for analytical thinking. A typical example, will be case studies where learners have to apply theoretical knowledge in finding a solution to a work-related problem.

When teaching a learner all the do's and don'ts about, for example interviewing skills, role play can be implemented and learners can participate instead of learning only the theory.

- **Combine ideas or information in new ways**

Lecturers should be innovative when giving assignments. This will help learners to be able to combine information in different formats. Once again, assignments must differ in degree of complexity and trends in the workplace, must be implemented into the assignments.

- **Organise ideas**

A well-planned assignment will guide students to organise their ideas in a proper way. Students must learn how to identify processes and procedures and list them logically. Class exercises will help to develop this skill and if the learners do this in groups, several other skills will be addressed as well.

- **Present information in different formats**

Different subjects determine different ways of presenting information. Opportunities and creativity are set by outcomes- based education and learners must feel free to be creative. Lecturers encourage learners to find new ways to present information within set parameters.

In conclusion, academic skills and the ability to learn, form the foundation for graduates to become employable. Willemse (2002:4) is of the opinion, that learning occurs when individuals, teams and organisations generate and generalise good ideas; when ideas from one setting or time are applied to another, or when theory becomes sustained reality.

6.4.3.3 Personal/Career management

Abrahams (2003:6) describes career management as an ongoing process whereby a person obtains self-knowledge (interests, values, abilities, personality, career anchor), obtains knowledge of the working environment, develops career goals; develops a strategy, and obtains feedback on the effectiveness of the strategic relevance of goals.

The competencies under personal and career management will be discussed, as rated by the respondents. Specific strategies will be proposed on how these competencies can be and should be integrated at Higher Education institutions.

- **Conduct career self-assessment**

The researcher indicated, that the lecturer ought to convert the classroom into a workplace. This will help the learners to relate their studies to their career. Career self-assessment can be changed to study self-assessment, and the learner has to evaluate his or her own study progress.

- **Identify and pursue their career goals**

The same technique can be applied i.r.o. career goals as with career self-assessment. Learners would have to identify their career goals at the beginning of each year and assess them at the end of each academic year.

- **Adapt to the dynamics of the workplace**

Chapter three mentions, that graduates experience the transition from Higher Education Institutions to the workplace as being difficult. The researcher is of the

opinion that if the workplace is brought into the classroom, a smoother transition will take place.

- **Accept responsibility**

The importance of a learner's ability to accept responsibility can not be accentuated enough. Employers will, however not experience this competency as negative, if learners are forced to take responsibility in the learning situation.

6.4.3.4 Interpersonal Skills

Interpersonal skills can be defined as the ability of dealing effectively with the emotional reactions of others, having smooth interaction with others and having positive relationships with people (DuBrin, 1997:2).

Learners need to realise that, especially in the field of Management Sciences, as an employee one will always have interrelations with colleagues, other departments, customers, and so forth. Oblinger and Verville (1998:83) support this view and state that knowing how to work with others is critical – personally, as well as professionally.

The competencies under interpersonal skills will be discussed as rated by the respondents. Specific strategies will be proposed on how these competencies can be and should be integrated at Higher Education institutions.

- **Self-control**

The importance of interrelationships has been emphasised. Students must realise that they are responsible for their behaviour and that implies, that students have to control themselves in a variety of situations.

- **Initiative**

Harris (2000:14) is of the opinion, that firms want players, not spectators. Employers want to hire people who have a "can do" approach, those who get involved, rather than those who stand on the sidelines and watch the world go by. Graduates should seek opportunities and use them and they will be able to do this only if they were taught to use own initiative during their years of study.

- **Flexibility**

Organisations in South Africa have sought to introduce a few forms of flexibility, including flexi-working hours, part-time employment, temporary employment or job-sharing (Van Niekerk and Douglas 2003:20). The changing demands of the workplace need employees who can adapt to change and to different situations.

The importance of teamwork can not be over-emphasized. Changing the team members will not only improve flexibility but interpersonal skills will also be developed. Lecturers must group different students for different projects so s to allow students to learn how to respond to change and to lead change.

- **Self- management**

Self-management is described in chapter three as self-discipline, the ability to deal with stress, prioritisation, planning and an ability to juggle several things at once. Students should know how to prioritise and plan their day and week. Lecturers who keep to their deadlines, will force students to plan and prioritise their work.

- **Leadership**

The classroom can be conducive to the development of leadership. All the students in the Faculty of Management Sciences cover the theory on leadership styles in their curriculum. The lecturer can give an assignment and request the learners to determine their own leadership styles or even evaluate a well-know persons' leadership style. The researcher is of the opinion, that group work with rotating leadership, will help students to develop their leadership skills.

6.4.3.5 Work Ethics

- **Awareness of ethical responsibilities**

Students should be aware of the ethical responsibilities, not only to be part of the social structure, but different disciplines have different rules on ethical responsibility. The ethical responsibilities of each discipline can constitute a core element in one of the main subjects. The Higher Education Institution's code of ethics can be discussed. This will not only help the students to understand the concept, but also be inform them on the institution's code of ethics.

- **Punctuality**

The researcher already mentioned that the workplace must be simulated in the classroom. Students must learn that no excuse is acceptable for their not being punctual. If they manage themselves and take responsibility for their actions, they will realise the importance of being punctual.

- **Conscientiousness**

Outcomes-based education makes provision for students to redo assignments until the work meets the requirements of the assessment criteria. Students have to learn to do their work to the best of their abilities. Should the criteria not be met, the student has to redo the assignment, until the lecturer is satisfied that the student has achieved the outcome.

6.5 CONCLUSION

The researcher is of the opinion, that the Employable Skills Model will help graduates to be better prepared for the workplace. The model can be divided into three phases, the first being the critical cross-field outcomes that need to be part of the core curriculum. The second phase is the Employable Skills Programme that must be presented to address certain competencies and the final phase, is the skills that must be infused into the curriculum.

In chapter seven the conclusions and recommendations will be discussed, together with the limitations identified. The researcher will also make suggestions regarding any future research that can be undertaken.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

Chapter six discussed the research findings and a proposed Employable Skills Model was created. This chapter, therefore, focuses on the conclusions and recommendations, as well as on the limitations identified and future research that could be undertaken.

During the literature review, relevant subject literature was investigated and explored in order to establish and identify what the nature and need for employable skills in South Africa are. Empirical research was conducted in order to establish the specific employable skills graduates need to posses.

7.2 LITERATURE REVIEW OF THE STUDY UNDERTAKEN

It is a generally recognised fact, that the economy of a country is to a large extent dependent on the level of education of its citizens. A learning nation has the prospect of becoming a winning nation. The more knowledge and skills people possess, the more effective they will be and the better they will be able to think, to be inventive and to be creative. These are qualities that businesses need in order for these to compete in national and international markets, and truly internationally competitive businesses are what South Africa needs to encourage economic growth. South Africa, however, is hampered in becoming a learning nation due to many learning problems. The harsh reality is, that these learning

problems sooner or later end up at the door of employers as productivity problems (Du Plessis, Fourie and Hamburg, 1996:75).

One of the reasons students have unrealistic expectations and a lack of employable skills is that there is insufficient communication between institutions of higher education and industry. Gosling (2001:1) states, that undoubtedly there is no doubt that industry is one of the main customers of the skills developed by Higher Education Institutions (HEI's). There is however a lack of effective communication between business, higher education and government in South Africa.

Buitendacht (1994:33) emphasises that training institutions and Higher Education Institutions must not develop only academic skills, but also employable skills. A person will only be an effective employee only once his/her employable skills are developed, together with the theoretical knowledge required.

Global competition and rapid technological change have been the driving forces for a more flexible and competent workforce (Papalexandris and Nikandrou, 2000:391). The implications of a growing global economy, technological inventions and organisational shifts in the world of work in South Africa, are self-evident. This implies, that in order for South Africa to be competitive, companies will have to invest in a worker corps that adheres to the requirements set by world-class companies (Pretorius, 1998:vii).

Rapid changes have been brought about by globalisation and technology and these challenge Higher Education Institutions to stay abreast of these changes. Stewart and Knowles (2000:77) are of the opinion, that via curriculum development, Higher Education Institutions can take a leading role in assisting students to develop skills and transfer their learning and development to the world of work. Developing and locating "skills related" modules at the core of

courses, as apposed to being fringe-located, is considered necessary if such learning and development is to be embraced both by students and staff.

Wilson (2001:193) is of the opinion, that young candidates for employment suffer from a lack of work experience, self-reliance skills, patience, political awareness and realistic expectations. As was mentioned in chapter one, this correlates with the researcher's own observation in a class of 47 students following an honour's degree in Human Resource Management. When asked for which positions they will apply on completion of their studies, only two students indicated, that they would apply for the position of human resource officer, while the remainder (45 students) were under the impression that they could apply for positions of human resource managers. This supports Wilson's research, in that students do not have realistic expectations.

Anderson (1999:2) stresses the fact that lecturers lack awareness of what is happening in the real world of work and their knowledge is either esoteric or out of date. During a presentation at the South African Institute for Management Sciences' annual conference, the researcher became aware of differences amongst institutions regarding their level of awareness. Some institutions are of the opinion, that their students are adequately prepared for the world of work, while other institutions admit that they need to address this gap.

It is thus absolutely imperative, that comprehensive employable skill models must be developed to address the demands set by employers.

7.3 ACHIEVEMENT OF THE STUDY OBJECTIVES

Within the scope of chapter one, specific objectives were identified. Having examined various aspects related to employable skills, it is now possible to determine whether the objectives stipulated in chapter one, were achieved. The

researcher is of the opinion that the primary and secondary objectives, set out in chapter one, have been achieved.

7.3.1 Primary objectives

The primary research objective, was to develop a model that will address the most important employable skills identified by employers, which are not addressed in the curricula at Higher Education Institutions. The researcher developed figure 6.2 after analysing the results obtained and conducting an in-depth literature study.

7.3.2 Secondary objectives

The following secondary objectives supported the primary objective and were achieved during the study.

- Conducting a literature study regarding the importance of employable skills for prospective employees in a world class milieu.
- Identifying the employable skills required by employers.
- Developing a model to address the most important competencies identified by employers.
- Providing recommendations relating to the design and contents of an employable skills model for ongoing research.

7.4 RESEARCH DESIGN

This study utilises both quantitative and qualitative research methods in order to obtain the necessary data to enable the researcher to determine the variables that would yield sufficient information to develop an Employable Skills Model that can be implemented at a Higher Education Institution.

The nature of the study allowed the researcher to conduct an empirical study that made use of primary data. A questionnaire was designed and the information received from the respondents, was used to develop a model.

The research was undertaken at the Vaal University of Technology (VUT), an Institution of Higher Education. The VUT has a main campus that is situated in Vanderbijlpark and four satellite campuses that are in Secunda, Kempton Park, Klerksdorp and Upington. The four satellite campuses were not included, because they are in other provinces, except Kempton Park.

A pilot study was undertaken to determine the reliability and validity of the research. Taking the statistical data into consideration, changes were made and the final questionnaire was distributed.

Data for this study were collected over a two-week period in June 2004. The sample group was composed of 46 companies who are industrial partners listed by the Department of Co-operative Education at the VUT. All the companies are situated in the Gauteng Province. The researcher included the advisory committee members as well. An advisory committee member is a representative from industry that advises the different departments (figure 1.2), on changes and needs in industry. The Faculty of Management Sciences has 33 people who serve on the various departmental advisory committees.

Seventy-nine (79) employers received the questionnaire and 56 completed questionnaires were returned. A response rate of 70,9 % was received.

Descriptive statistics enabled the researcher to develop an Employable Skills Model that addresses the skills and competencies required by Industry.

7.5 FINDINGS

The most significant findings from this research study, are as follows.

- A definite need exists for an Employable Skills Model for the Faculty of Management Sciences at the Vaal University of Technology.

- Employers are of the opinion, that not all seven critical cross-field outcomes are implemented in all the different courses.

7.6 RECOMMENDATIONS

- Higher Education Institutions need to realise, that they have a responsibility towards students and Industry regarding the quality of teaching and the content of the curriculum.

- An Employable Skills Model should be implemented at the Vaal University of Technology in order to help graduates to effectively make the transition from Higher Education Institutions to the workplace.

- The classroom should be simulated into the workplace and lecturers should stay abreast of trends and changes in their discipline.

7.7 LIMITATIONS OF STUDY

One aims to do research as thoroughly as possible, but the more one learns about a topic, the more opportunities arise.

The researcher identifies the following limitations regarding the completed research:

- Most of the sources consulted, were from research in Europe, America and Australia. The reason could be that South Africa does not yet realise the importance of the value of the theme of this study.

- The study focused on graduates who completed their qualification at the Vaal University of Technology in the Faculty of Management Sciences and can be extended to other Institutions and Faculties.

- The sample frame set within the scope and nature of this study, included only the Gauteng region.

7.8 FURTHER RESEARCH

The following opportunities for future research were identified in the course of this study.

- A comparative study between the different Faculties at the Vaal University of Technology.

- A comparative study at other Universities of Technology within South Africa.

- A comparative study at other Business Management Faculties at Universities in South Africa.

- A study that analyses the curricula of different courses in order to determine the effective implementation of the critical cross-field outcomes.

7.9 CONCLUSION

Given the increasing competition in Higher Education, Institutions have to realise, that industry is an external customer and in order to satisfy their needs, world-class graduates must be delivered.

The researcher is of the opinion, that lecturers have to develop students holistically. The workplace must be simulated in the classroom and lecturers must act as employers. Students who possess only theoretical knowledge, will struggle to find employment. Employers want graduates who add value to their organisation from the first day they enter the workplace. The implementation of the Employable Skills Model will enhance the development of well trained and much sought after graduates.

The researcher is of the opinion that there will always be a need to learn more about a topic and also believe that the research undertaken, forms the foundation for further research in this field.

BIBLIOGRAPHY

LIST OF SOURCES CONSULTED AND REFERRED TO:

ABELL, A. 2002. The perfect employee: essential skills for knowledge and information management. *New Straits times-management times,* 21, 2002: 56-61.

ABRAHAMS, I. 2003. Job or Career: Turning a job into a career. *People dynamics.* 21(2): 6-7.

AFRICAN NATIONAL CONGRESS. 1995. A policy Framework for Education and Training. African National Congress. Swaziland: Macmillan.

AHMADI, M. & HELMS, M.M. 1997. Small firms, big opportunities: The potential of careers for business graduates in SME's. *Education and Training,* 39(2): 52-57.

ALBERTS, E.M. 2001. Integrasie van besigheidsetiek in die leerprogram menslike hulpbronbestuur en Technikons in Suid-Afrika. D. Tech, Vaaldriehoekse Technikon.

ANDERSON, C.L. 2001. Learning partnerships: involving practitioners in public relations education. *Corporate Communications & colon,* 4(1): 1-8.

ANON. 1998. People skills as vital for a company as technical skills. Workplace. *The Citizen,* 25 March.

ANON. 2001. Colleges could provide impetus to job-related training. South Africa. *Enterprise: National Business Initiative Supplement,* April: 10.

ANON. 2003. Young people unprepared for world of work. [Available on Internet:] <http://www.mcb.co.uk> [Date of access: 17 February 2004].

ASMAL, K. 2000. Report to the President. [Available on Internet:] <http://www.gov.za> [Date of access: 12 June 2001].

AUSTRALIAN DEPARTMENT OF EMPLOYMENT, EDUCATION, TRAINING AND YOUTH AFFAIRS. 1998. An interim report. [Available on Internet:] <http://www.gov.za> [Date of access: 10 November 2003].

BABBIE, E. & MOUTON, J. 2003. The practice of social research. Cape Town: Oxford University Press.

BAIRD, A. 2000. Industry policy and skills development. *South African Labour Bulletin,* 24(2): 21-26.

BAK, N. 2004. Completing your thesis. A practical guide. Cape Town: Van Schaik Publisher.

BHORAT, H. 2002. Employment Trends: Has the economy created jobs since GEAR? *South African Labour Bulletin,* 26(1).

BIRD, A. 2000. Industry policy and skills development. South Africa. *South African Labour Bulletin,* 24(2): 21-26.

BLACKWELL DICTIONARY. (Werhane, P.H. & Freeman, R.E., ed). 1995. UK. The Blackwell Encyclopaedic Dictionary of Business Ethics. UK: Blackwell Business.

BOUGHEY, C. 1998. Language and "disadvantage" in South African institutions of higher education: implications of critical challenges to second language acquisition discourses for academic development practitioners. South Africa. *South African Journal of Higher Education in South Africa,* 124(1): 66-172.

BOUGHEY, C. 2000. Lecturing. Makoni, S. (ed). 2000. In improving teaching and learning in Higher education: A handbook for South Africa. Ed. by S. Makoni. Johannesburg: Witwatersrand University press in association with HERDSA.

BOYCE, J. 2002. Market Research in practice. Milan: McGraw-Hill.

BOYD, H.W., WESTFALL, R. & STASCH, S.F. 1981. Marketing research: Text and cases. Illinois: Irwin.

BRYANT, W.E.S. 1993. Job expectations of chemical engneers. Partial fulfilment of MBA. Johannesburg: University of the Witwatersrand.

BUCHNER, A. 1999. The critical need for workforce development. *Business Perspectives,* 12(1): 16-24.

BUITENDACHT, A. 1994. Filosofie moet verander. Suid-Afrika. *Finansies en Tegniek,* 33 – 34, March.

CHAN-ONN, F. 2002. Soft skills training for jobless graduates. [Available on Internet:] <http://www.mcb.co.uk> [Date of access: 6 May 2001].

CHARP, S. 1997. Enhancing workplace skills. *T.H.E. Journal,* March 1997, 24(8): 6.

CHRISTIE, P. 1996. Globalisation and the curriculum: Proposals for the integration of education and training in South Africa. *Internal Journal of educational development,* 16(1): 401-416.

CHURCHILL, G.A., & IACOBUCCI, D. 1998. Marketing research methodological foundations. Florida: Harcourt.

CLARKE, A. 1997. Survey on employability. UK. *Industrial and Commercial Training,* 29(6): 177–183.

COETZEE, S.G. 2000. A guide to the Skills Development Act and Levies. Durban: Butterworths.

COLEMAN, L. 2000. Developing Workplace Skills. How to get your first job and keep it. Cape Town: Juta & Co, Ltd.

COLLINS, SOUTH AFRICAN SCHOOL THESAURUS, (2003), 2nd ed. Great Brittain: Harper Collins Publishers.

COOPER, D.R. & SCHINDLER, P.S. 1998. Business Research Methods. 6th ed. Singapore: McGraw-Hill.

CORBETA, P. 2003. Social Research. Theory, Methods and Techniques. London: UK. SAGE Publications.

COSTELLO, PJ.M. 2003. Action Research. London. Continuum.

CRIMP, M. & WRIGHT; L.T. 1995. The marketing research process. Hertfordshire: Prentice Hall.

CROSLING, G. & Ward, I. 2002. Oral communication: the workplace needs and uses of business graduate employees. *English for Specific Purposes,* 21(1): 41-57.

CURRIE, J. 2003. Understanding the impact of globalisation on universities. *South African Journal of Higher Education,* 17(1): 16-23.

CZARNIAWSKA, B. 2004. Narratives in Social Science Research. Introducing Qualitative Methods. London: SAGE Publications.

DABHOLKAR, P.A. 1994. Consumer evaluation of new technology – based on selfservice options. *International journal of research in marketing,* 13(5): 29-51.

DATA PROCESSING. 2004. Student numbers in management sciences at the VUT. Information received from Mr L. Klopeer. Vaal University of Technology.

DAVIES, H.A., CSETE, J. & POON, L.K. 1999. Employer's expectations of Performance of Construction Graduates. *International Journal of Engineering,* 15(3): 191-198.

DAVIES, T.A. 2001. Entrepreneurship development in South Africa: Redefining the role of tertiary institutions in a reconfigured higher education system. *South African Journal of Higher Education in South Africa,* 15(1): 32-37.

DAVIS, B.D. & MILLER, T.R. 1996. Job preparation for the 21st century: A group project learning model to teach basic workplace skills. *Journal of Education for Business,* 72(2): 69-75.

DAVIS, P. 1997. What computer skills do employers expect from recent college graduates? *The Higher Education Journal,* 26(2): 74-85.

DENCH, S. 1997. Changing skill needs: What makes people employable? *Industrial and Commercial Training.* 29(6): 190-193.

DE VILLIERS, A.B. 1996. Disadvantaged students: analysing the zone of proximal development. *South African Journal of Higher Education*, 10(1): 135-139.

DODGE, H.R., FULLERTON, S. & RINK, D. 1982. Marketing Research. Columbus: Charles E. Merril Publishing Company.

DUBRIN, A.J. 1997. Fundamentals of organisational behaviour. New York: International Thomson Press.

DUNN, D., DOUGHTY, R. & WALKER, S. 1996. Skills Workout – an effective yet straightforward approach to the assessment and development of skills at work. *Team Performance Management,* 2(4): 27-32.

DU PLESSIS, J. 2004. Oral discussion held on 4 August 2004.

DU PLESSIS, H., FOURIE, S. & HAMBURG, S. 1996. Foundational learning skills : Today's necessity. *People Dynamics,* 14(11): 74-78.

DU PRé, R.H. 2000. SAQA and the NQF. An introduction to Outcomes-based Programme Development. Pretoria: The Committee of Technikon Principles.

ELLIS, S.P. 2003. Anticipating employer's skills needs: the case for intervention. *International Journal of Manpower,* 24(1): 83-96.

EVANS, R. 1999. Serving modern students in a modern society at the community college: Incorporating basic technological literacy. *The Higher Education Journal.* 27(3): 102-110.

FALCONER, S. & PETTIGREW, M. 2003. Developing added value skills within an academic programme through work-based learning. *International Journal of Manpower.* 24(1): 48-59.

FALKOV, L. 1997. Creating a world-class skills development system. *The Innes Labour Brief,* 8(4): 29 –36.

FALLOWS, S. & STEVEN, C. 2000. Building employability skills into the higher education curriculum: a university-wide initiative. *Education and Training,* 42(2): 75-83.

FARMER, J. & CAMPBELL, F. 1997. Information professionals, CPD and transferable skills. *Library Management,* 18(3): 129-134.

FINK, A. 1995. How to sample in surveys. London: SAGE Publications.

FINN, M., ELLIO-WHITE, M. & WALTON, M. 2000. Tourism & Leisure Research Methods. Data collection, analysis and interpretation. England: Pearson Education.

FOLEY, P. 1999. Transferable Skills Teaching: contextual pressures and personal dilemmas. United Kingdom. *Teaching in Higher Education,* 4(1).

FROST, T. 2001. Can Africa achieve global competitiveness?. *People Dynamics,* 19(9): 18-21.

GARBERS, J.G. (Red). 1996. Doeltreffende geesteswetenskaplike navorsing. Pretoria: J.L. van Schaiks.

GARMAROFF, R. 1998. Language, content and skills in the testing of English for academic purposes. *South African Journal of Higher Education in South Africa,* 12(1): 109-115.

GASPARIKOVA, J., BAKOS, V., PILLAY, N. & PRINSLOO, C.H. (Ed). 1996. Methodological challenges of interdisciplinary research in the social sciences. Pretoria: HSRC Publishers.

GIBBONS-WOOD, D. & LANGE, T. 2000. Developing core skills – lessons from Germany and Sweden. *Education and Training,* 2(1): 24 – 32.

GILLHAM, B. 2003. Case study research methods. London: Continuum.

GNANAM, A. 2000. Core competency in higher education. *South African Journal of Higher Education in South Africa,* 14(2).

GODUKA, I.N. 1998. Linguistic and cultural diversity implications for learning, educating and curricular transformation. *South African Journal of Higher Education in South Africa,* 12(1): 34-43.

GOODPASTER, K.E. 1998. History of business ethics. In Werhane, P.H. & Freeman, R.E. (ed). 1998. UK. The Blackwell Encyclopaedic Dictionary of Business Ethics. Blackwell Business.

GOSLING, J.W. 2001. Industry and tertiary education institutions – expectations and commitments. *Electron,* March.

GRAHAM, L. & KRUEGER, T.M. 1996. What does a graduate need? *Financial Practice & Education,* 6(2): 60-68.

GREYLING, L. 2001. Skills development: a strategic perspective. *South African Journal of Higher Education in South Africa,* 15(2): 37-48.

GUSH, J. 1996. Graduates into the retail industry: an assessment of the nature and causes of mismatches between the needs and expectations of the retail industry and its graduate employees. *International Journal of Retail and Distribution Management,* 24(9): 5-12.

HAGUE, P. & JACKSON, P. 1999. Market research: A guide to planning, methodology and evaluation. London: Kogan Page Limited.

HALL, E. & ROODT, J. 1999. Skills needs of the SA labour market: 1998 – 2003. Human Sciences Research Council. Pretoria: HSRC Bookshop.

HAMILTON-ATTWELL, A. 1998. Productivity and work ethics. [Available on Internet:] <http://www.mcb.co.uk> [Date of access: 13 June 2001].

HARRIS, N. 2000. Firms want players, not spectators. *The Star.* 6 December.

HART, C. 1998. Doing a literature Review. Releasing the Social Science Research Imagination. London: SAGE Publications.

HASSAL, T., JOYCE, J. MONTANO, J.L.A. & ANES, J.A.D. 2001. The employers' priorities. Vocational skills and capabilities for management accountants. *Industry and Higher Education,* pp. 421-429, December.

HILL, R.B. & PETTY, G.C. 1995. A new look at selected employability Skills: A factor Analysis of the Occupational Work Ethic. *Journal of Vocational Education Research,* 20(4): 1-12.

HILLIARD, V. 1997. The demise of the university-technikon rivalry. *Management today,* March.

HODGES, D. & BURCHELL N. 2003. Business Graduate Competencies: Employer's views on importance and performance. *Asia-Pacific Journal of Cooperative Education,* 4(2): 16-22.

HOLDSWORTH, T. & GEARHART, E. 2002. Teaching and Assessing Employability Skills. *Modern Machine Shop*, 74(12): 158-159.

HOLTER, N. & KOPKA, D.J. 2001. Developing a Workplace Skills Course: Lessons Learned. *Journal of Education for Business,* January/February 2001: 138-143.

HOYE, J.D. & DRIER, H. 1999. Career education: The foundation for school-to-work. *Tech Directions,* 59(2): 35-39.

HUGHEY, A.W. & MUSSNUG, K.J. 1997. Designing effective employee training programmes. *Training for Quality,* 5(2): 52-57.

HUTCHINSON, S.H. & SAWYER, S.C. 2000. Computers and information systems. 7th ed. Boston: Irwin/McGraw-Hill.

JACKSON, M. & PROSSER, M. 1989. Less lecturing, more learning. *Studies in Higher Education,* 14(1): 55-68.

JANSE VAN RENSBURG, J. & POTLOANE, V. 1998. Outcomes-based teaching and learning: Concepts ad Essentials. Outcomes-based Education in South Africa. Ed. by F. Pretorius. Randburg: Hodder & Stoughton Educational

JANSEN, J. 1997. The reconstruction of schools: can quality be improved. Education forum. First edition. Pinegowrie: Education Africa.

KANTER, R.M. 1997. World Class. Thriving locally in the global economy. New York: Simon & Schuster.

KARTUS, L. 2004. Do first impressions count? *People Dynamics,* 22(7): 29.

KAUNDA, L. ALLIE, S., BUFFLER, A. CAMPBELL, B. & LUBBEN, F. 1998. An investigation of student's ability to communicate science investigations. *South African Journal of Higher Education in South Africa,* 124(1): 122-129.

KAUNDA, L. & BALL, D. 1998. An investigation of student's prior experience with laboratory practicals and report-writing. *South African Journal of Higher Education in South Africa,* 124(1): 30-139.

KELLEY-PATTERSON, D. & GEORGE, C. 2001. Securing graduate commitment: an exploration of the comparative expectations of placement students, graduate recruits and human resource managers within the hospitality, leisure and tourism industries. *International Journal of Hospitality Management,* 20(4): 311-323

KENT, R.A. 1993. Marketing research in action. New York: Routledge.

KOFFEL, L. 1994. Teaching workplace skills. Creative was to teach students the skills employers want. Houston: Gulf Publishing.

KOHL, H.R. 1998. The discipline of hope: Learning form a lifetime of teaching. USA: Simon & Schuster.

KIMANI, E. 2000. How to conduct tracer studies in Africa? Approaches and experience. . [Available on Internet:] <http://www.mcb.co.uk> [Date of access: 12 February 2004].

KNIGHT, P. & YORKE, M. 2003. Employability and good learning in higher education. *Teaching in Higher Education,* 8(1): 1-16.

KNIPPEN, J.T. & GREEN, T.B. 1999. Most common errors of new managers. [Available on Internet:] <http://www.mcb.co.uk> [Date of access : 5 June 2001].

KROON, J. & MEYER, S. 2001. The role of entrepreneurship education in career expectations of students. *South African Journal of Higher Education in South Africa*, 15(1): 47-53.

KRUPP, J. 2004. Skills at grassroots level key to transformation. *Sunday Times*. 23 May.

LATEGAN, L.O.K. 2003. The Engaged University. South Africa. *Interim,* 2(1): 68-86.

LATEGAN, L.O.K., VERMEULEN, W. & TRUSCOTT, M. (Ed.), 2003. Research Made Easy. Part 1: A general overview of the research process and context. South Africa: Tekskor, BK.

LAUGHTON, D. & MONTANHEIRO, L. 1996. Core skills in higher education: The student perspective. E*ducation and Training*, 15(1).

LAWS, S., HARPER, C. & MARCUS, R. 2003. Research for Development. A practical guide. London: Sage Publication.

LAWSON, T.J. 2002. Everyday Statistical Reasoning: Possibilities and pitfalls. Canada: Wadsworth.

LEEDY, P.D. & ORMROD, J.E. 2001. Practical Research. Planning and Design. New Jersey: Prentice Hall.

LEVESON, L. 2000. Disparities in perceptions of generic skills: academics and employers. *Industry and Higher Education,* 14(3): 157-164.

LITWIN, M.S. 1995. How to measure survey reliability and validity. California: SAGE Publications.

LOCKE, L.F., SILVERMAN, S.J. & SPIRDUSO, W.W. 1998. Reading and understanding research. London: SAGE Publications.

LOUW, G. & VERWEY, S. 1999. The South African new educational environment: Turbulent change in tertiary institutions. *Communicate* 19(1). July.

LUBISI, C., WEDEKIND, V., PARKER, B. & GULTIG, J. 1997. Reader: Understanding outcomes-based education: Knowledge, Curriculum and Assessment in South Africa. A pilot module of the SAIDE study of educational project. Braamfontein: The South African Institute for Distance Education.

LUCKETT, K. 2001. South Africa. A proposal for an epistemically diverse curriculum for South African higher education in the 21st Century. [Available on Internet:] <http://www.mcb.co.uk> [Date of access: 12 February 2004].

LUCZYN, A. & PRETORIUS, A. 1998. A training and development programme to empower the facilitator to operate as an effective and competent ETD practitioner in a challenging and dynamic training environment. Waterkloof: The Paragon Generation (PTY) Limited.

MACUN, I. 2000. Strategic planning contributing to skills development. South Africa. *SA Labour Bulletin.* 24(2): 38-42.

MAHARASOA, M. & HAY, D. 2001. Higher Education and Graduate Employment in South Africa. *Quality in Higher Education,* 7(2).

MAKONI, S. (Ed). 2000. Improving teaching and learning in Higher Education: A handbook for South Africa. Johannesburg: Witwatersrand University Press in association with HERDSA.

MARINI, R.C. & TILLMAN, R.R. 1998. Giving graduates worldwide the business skills they need through cooperative education. *Journal of Cooperative Education,* XXXIII(2): 50-59.

MATENTJIE, T. 1999. The applicability of using psychometric assessment tools within and outcomes-based education paradigm for placement and learner support purposes. *South African Journal of Higher Education,* 13(2): 143-148.

MAZIBUKO, F. 2003. Innovation n community-related and community driven higher education programmes. *Journal for New Generation Science.* 1(1): 24-31.

MBALI, C. 1999. Using portfolios to develop reflective higher education practitioners. . *South African Journal of Higher Education,* 13(2): 209-216.

MCDANIEL, C. & GATES, R. 1998. Marketing research essentials. Cincinnati: South-Western College Publishing.

MCGREGOR, K. 2001. Higher Education in Transition. Story South Africa. The guide to South African Universities and Technikons. South Africa: Artwork Publishing.

MEYER, M. 1999. Managing human resources development: An outcomes-based approach. Durban: Butterworths.

MEYER, M. 2001. ETD Practices in South Africa. Durban: Butterworths.

MIDDLETON, C. 2000. Models of State and Market in the 'Modernisation' of Higher Education. *Brithish Journal of Sociology of Education,* 21(4): 36-74.

MJI, A. 1999. Understanding learning: a survey of undergraduate mathematics students' perceptions. *South African Journal of Higher Education*, 13(3): 155-163.

MILLER, L. & BREWER, J.D. (Ed). 2003. The A – Z of Social Research. A dictionary of key social science research concepts. London: SAGE Publications.

MILLER, S. & LICIARDE, R. 2003. Tertiary perceptions of the benefits of professional career management education: and exploratory study. *Career Development International.* 8(6): 309-315.

MITTNER, M. 1996. Sal ek ooit werk kry. South Africa. *Finansies en Tegniek,* 48(20): 10-11.

MORDAUNT, S. 2004. Oral discussion held on 5 August 2004.

MOUTON, J. & MARAIS, H.C. 1992. Basiese begrippe: Metodologie van die geesteswetenskappe. Pretoria: RGN.

MOUTON, J. & MARAIS, H.C. 1993. Basic concepts in the methodology of the social sciences. Pretoria: HSRC Publishers.

NABI. G.R. & BAGLEY, D. 1998. Graduates' perceptions of transferable personal skills and future career preparation in the UK. *Career Development International,* 3(1): 31-39.

NATARAJAN, R. 2000. The role of accreditation in promoting quality assurance in technical education. *The International Journal of Engineering Education,* 16(2): 85-96.

NATIONAL DEPARTMENT OF EDUCATION. 1997. Curriculum 2005: Lifelong learning for the 21st century. February 1997. Issued by the National Department of Education.

NEWTON, S. 2001. Mastering your career: linking workplace training to tertiary studies. *New Library World,* 102(1/2): 34-38.

NOE, R.A. 2002. Employee Training and Development. New York: McGraw-Hill Irwin.

OBLINGER, D.G. & VERVILLE, A. 1998. What business wants from Higher Education. American Council on Education. USA: Oryx Press.

OGDEN, T.E. & GOLDBERG, I.A. 2002. Research proposals. A guide to success. London: Academic Press.

OLIVIER, C. [S.A]. Let's educate, train and learn outcomes-based: A 3D experience on creativity – NQF based. Clubview: Design Book.

OLIVIER, C. 1997. Outcome-based education and training programmes. South Africa: OBE Pro.

OLIVIER, C. 1998. How to educate and train Outcomes-based. Pretoria: JL van Schaik Publishers.

OLIVIER, C. 2001. Let's educate, train and learn outcomes-based. A 3D experience in creativity. Pretoria: Design Book.

OMAR, R. 1999. A new approach to skills development: The skills development Act of 1998. *Management today,* June.

PAPALEXANDRIS, N. & NIKANDROU, I. 2000. Benchmarking employee skills: results from best practice firms n Greece. *Journal of European Industrial Training,* 24(7): 391-402.

PERRONE, L. & VICKERS, H. 2003. Life after graduation as a "very uncomfortable world": an Australian case study. *Education and Training,* 45(2): 69-78.

PHILLIPS, C.R. & CRAIN, J.L. 1996. Job duties and responsibilities in public accounting: are student expectations unrealistic? [Available on Internet:] <http://www.mcb.co.uk> [Date of access : 6 May 2001].

PITCHER, J. & PURCELL, K. 1998. Diverse Expectations and Access to Opportunities: is there a graduate labour market? *Higher Education Quarterly,* 52(2): 179-203.

PRETTORIUS, F. 1998. The necessity of a New Approach to Education in South Africa. Outcomes-based Education in South Africa. Ed by F. Pretorius. Randburg: Hodder & Stoughton Educational.

PRETORIUS, F. 1999. Outcomes-based education in South Africa. (Ed) by F. Pretorius. Randburg: Hodder & Stoughton Educational.

PRINSLOO, P. 2001. Oral discussion held on 13 May 2001.

RAIJMAKERS, L.R. 1998. Evaluation of a life and job skills training program for tertiary students. Potchefstroom: Potchefstroomse Universiteit vir Christelike Hoër Onderwys. Thesis – PHD Industrial and Personnel Psychology.

RAMPHELE, M. [S.A.]. The National Qualifications Framework: An Overview. South Africa: SAQA publication.

ROBBINS, S.P. 1998. Organizational Behaviour. 8th ed. USA: Prentice Hall.

ROSSOUW, D. 2002. Business Ethics in Africa. Cape Town: Oxford Press.

SABC NEWS. 2000. Afrikaans News Bulletin, 9 May 2000.

SALEHI-SANGARI, E. & FOSTER, T. (1999). Curriculum internationalisation. A comparative stud in Iran and Sweden. *European Journal of Marketing,* 33(7/8): 760 – 772.

SAQA. [S.A.]. Guidelines for the assessment of NQF registered unit standards and qualifications. Policy Document. Pretoria: South African Qualifications Authority.

SAQA. 1995. South African Qualifications Authority Act, n. 58 of 1995. RSA. [Available on Internet: <http://www.saqa.org.za>. Date of access: 6 May 2001].

SAQA. 1997. *The South African Qualifications Authority Bulletin,* 1(1). Pretoria: Office of the Executive Officer, SAQA.

SCHULTZ, T. 2003. National Responsiveness in the innovation management in public higher education. *Journal for New Generation Science,* 1(1): 43-52.

SHELTON, C. 1999. Quantum leaps. 7 Skills for workplace recreation. USA: Butterworth-Heinemann.

SITLEY, A.M. 2000. How t act professionally on the job. *Career World,* 29(3): 15-17.

SKILLS DEVELOPMENT ACT NO. 97 OF 1998. [Available on Internet:] <http://www.polity.org.za>. Date of access: 6 May 2001].

SMIT, P. 2000. Transformasie in Hoër Onderwys: Verlede, hede en toekoms. [Available on Internet:] <http://www.mcb.co.uk> [Date of access: 12 February 2004].

SOUTH AFRICAN CONCISE OXFORD DICTIONARY, edited by The Dictionary Unit for South African English. Oxford University Press, 2002.

SPATA, A. 2003. Research Methods. USA: Wiley Science and Diversity.

STEWART, J. & KNOWLES, V. 2000. Graduate recruitment and selection: implications for HE, graduates and small business recruiters. *Career Development International,* 5(2): 65- 80.

SUTHERLAND, G., MCFARLANE, N. & VERMEULEN, J. 2002. The application of skill enhancement techniques for intro-engineering students at the Vaal Triangle Technikon, South Africa. Paper delivered in Miri, Sarawak, Malaysia at the Higher Education for 21st Century Conference.

SWARTZ, E. & FOLEY, P. 1996. Higher education in South Africa: the skills debate. *Education and Training,* 38(9): 34-40.

TEIK, C.H. 2002. Producing skilled grads. [Available on Internet:] <http://www.ebscohost> [Date of access: 28 February 2003].

THE CITIZEN, ANON. 1998. People skills as vital for a company as technical skills. Workplace, *The Citizen*, 25 March.

TROCHIM, W.M.K. 1997. The knowledge base: online research methods textbook. [Available on Internet:] <http://rochim.human.cornell.edu/kb/kbhome.htms> [Date of access: 7 June 2004].

UMLAW, Z. 1992. Black graduate expectations. South Africa. *People Dynamics.* July 1992.

VAN DEN BERG, M.E.S. 2000. Is there a need for critical thingking skills' modules at tertiar level? South Africa. *South African Journal of Higher Education,* 14(1): 96-107.

VAN NIEKERK, L. & DOUGLAS, L. 2003. It pays to be flexible. *People Dynamics*, 21(2): 20-21.

VAN STADEN, A. 2004. Computer literacy as additional empowerment mechanism in learning programmes. M.Tech, Vaal University of Technology.

VAN WYK, N. & MOTHATA, M.S. 1999. Outcomes-based education in South Africa. Ed. by F. Pretorius. Randburg: Hodder & Stoughton Educational.

VAN ZYL, E. 1999. Skills needs of the SA labour market: 1998 – 2003. Human Sciences Research Council. Pretoria: HSRC Bookshop.

VENTER, F. 2001. The implementation of a strategy for the effective management of HIV/AIDS in the workplace. Thesis submitted for Doctor Commercii. South Africa. University of Pretoria.

VINTEN, G. 1996. The education-business partnership: an evaluation. *International Journal of Educational Management*, 10(2): 27-38.

WIELD, A. 2001. Oral discussion held on 13 May 2001.

WELMAN. J.C. & KRUGER, S.J. 2000. Research Methodology for the Business and Administrative Sciences. Cape Town: Oxford University Press.

WILLEMSE, A. 2002. Human Rsources evolution. Adding value through managing people. *People Dynamics*, 20(5): 4-5.

WILSON, K. 2001. Be a workplace warrior. A new approach to getting the job that's perfect for you. London: Vega.

WOOD, T. 1998. Issues relating to the cognitive development of students at historically disadvantaged institutions. South Africa. *South African Journal of Higher Education in South Africa,* 12(1): 87-94.

WRIGHT, P.W.G. (Ed). 1990. Industry and Higher Education. Collaboration to improve student's learning and training. UK: The Society for Research into Higher Education & Open University Press.

YEOMANS, J. 2001. The positive impact of the NQF on Training in South Africa: Trends in SA Human Resources Development Interpreted. *Cutting Edge,* 4(2).

ZIKMUND, W.G. 2000. Exploring Marketing Research. Orlando: Harcourt Brace & Company.

ZINSER, R. 2003. Developing career and employability skills: A US case study. *Education and Training,* 45(7): 402-410.

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ANNEXURE A

PILOT QUESTIONNAIRE

Questionnaire

SECTION A
PERSONAL INFORMATION

1. Your position within the organisation:

HR Manager / Officer	HRD Manager /Officer	Head of Department	Supervisor
Other (Please specify)			

2. How old are you?

20-29 years	30-39 years	40-49 years	50-59 years	60+ years

3. To which population group do you belong?

African	Asian	Coloured	White

3. What is your gender?

Male	Female

4. What is highest qualification?

Grade 12	Matric +3	Matric +4	Matric +5

5. Industry group

Administration	Banking Finance Insurance	Government	Manufacturing
Marketing	Public Services	Recruitment Management consultancy	Training Education
Travel/Transport	Telecommunication		Tourism
Wholesale	Other Please specify:		

SECTION B

CRITICAL CROSS FIELD OUTCOMES (CCFO)

Section B reflects on the 7 critical cross-field outcomes and is build into all curricula at Higher Education Institutions. The researcher would however, like to validate whether employers experience that graduates possess these skills. Circle the number in the relevant column most appropriate to your experience.

		No satisfaction	Some satisfaction	Reasonable satisfied	Satisfied
1	**PROBLEM-SOLVING SKILLS** is defined as, the ability to identify and solve problems, with responses showing that responsible decisions have been made, using critical and creative thinking.	1	2	3	4
2	**TEAMWORK SKILLS** is defined as the capability to work effectively with others as a member of a team, group, organisation and community.	1	2	3	4
3	**SELF-RESPONSIBILITY SKILLS** is defined as the ability of individuals to organise and manage themselves and their activities responsibly and effectively.	1	2	3	4
4	**RESEARCH SKILLS** is defined as the ability to collect, analyses, organises and critically evaluates information.	1	2	3	4
5	**COMMUNICATION SKILLS** is defined as the ability to communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentation.	1	2	3	4
6	**TECHNOLOGICAL AND ENVIRONMENTAL LITERACY SKILLS** is defined as the ability to use science and technology effectively and critically, showing responsibility towards the environment and health of others.	1	2	3	4
7	**DEVELOPING MACRO VISION SKILLS** is defined as demonstrating an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.	1	2	3	4

SECTION C

EMPLOYABLE SKILLS

Do graduates entering the market for the first time possess the following skills that are sub-divided into competencies?

		No satisfaction	Some satisfaction	Reasonable satisfied	Satisfied
JOB SEEKING SKILLS					
Do students possess the following competencies:					
1	Compile a professional curriculum vitae	1	2	3	4
2	Apply for an applicable position	1	2	3	4
3	Write a cover letter	1	2	3	4
4	Add certified copies of relevant documentation	1	2	3	4
5	Follow dress code	1	2	3	4
6	Compile/present a portfolio of evidence	1	2	3	4
7	Complete an application form	1	2	3	4
8	Interview skills	1	2	3	4
9	Other: (Please specify)				
ACADEMIC SKILLS					
Do students possess the following competencies:					
10	Apply scientific and social studies concepts	1	2	3	4
11	Perform managerial processes in work-related situations	1	2	3	4
12	Simulate information	1	2	3	4
13	Interpret information	1	2	3	4
14	Present information in an acceptable format	1	2	3	4
15	Ability and willingness to learn	1	2	3	4

		No satisfaction	Some satisfaction	Reasonable satisfied	Satisfied
16	Analytical thinking	1	2	3	4
17	Conceptual thinking	1	2	3	4
18	Demonstrate the ability to combine ideas or information in new ways	1	2	3	4
19	Make connections between seemingly unrelated ideas	1	2	3	4
20	Organise ideas	1	2	3	4
21	Present information in different formats	1	2	3	4
22	Other: (Please specify)				

PERSONAL/CAREER MANAGEMENT

Do students possess the following competencies:

23	Acquire, organise, interpret and evaluate information from career awareness	1	2	3	4
24	Do career assessment	1	2	3	4
25	Identify en pursue their career goals	1	2	3	4
26	Energy and passion	1	2	3	4
27	Achievement orientation	1	2	3	4
28	Continuous learning	1	2	3	4
29	Time management	1	2	3	4
30	Stress management	1	2	3	4
31	Positive attitude towards work	1	2	3	4
32	Adaptability	1	2	3	4
33	Motivation	1	2	3	4

		No satisfaction	Some satisfaction	Reasonable satisfied	Satisfied
34	Enthusiasm	1	2	3	4
35	Responsibility	1	2	3	4
36	Self image	1	2	3	4
37	Initiative	1	2	3	4
35	Other: (Please specify)				

INTERPERSONAL SKILLS

Do students possess the following competencies:

36	Self confidence	1	2	3	4
37	Interpersonal understanding	1	2	3	4
38	Self control	1	2	3	4
39	Initiative	1	2	3	4
40	Flexibility	1	2	3	4
41	Self discipline	1	2	3	4
42	Self management	1	2	3	4
43	Other: (Please specify)				

WORK ETHICS

Do students possess the following competencies:

44	Awareness of ethical responsibilities	1	2	3	4
45	Honesty	1	2	3	4
46	Integrity	1	2	3	4
47	Punctuality	1	2	3	4
48	Conscientiousness	1	2	3	4
49	Other: (Please specify)				

		No satisfaction	Some satisfaction	Reasonable satisfied	Satisfied

Computer Literacy

Do students possess the following competencies:

50	Word processing e.g. ms word	1	2	3	4
51	Spread sheet e.g. Excel	1	2	3	4
52	Power point (presentations)	1	2	3	4
53	Internet	1	2	3	4
54	E-mail	1	2	3	4
55	Other: (Please specify)				

Relationships

Do students possess the following competencies:

56	Teamwork and cooperation	1	2	3	4
57	Customer service orientation	1	2	3	4
58	Impact and influence on others	1	2	3	4
59	Leadership	1	2	3	4
60	Developing other	1	2	3	4
61	Conflict management	1	2	3	4
62	Other: (Please specify)				

ANY OTHER SKILLS REQUIRED BY GRADUATES THAT IS NOT INCLUDED IN THE QUESTIONNAIRE?

THANK YOU FOR YOUR TIME AND PARTICIPATION

ANNEXURE B

LETTER

Vaal University of Technology
Room G209
Private Bag X021
VANDERBIJLPARK
1900

7 June 2004

Dear Employer

It will be greatly appreciated if you could assist me with your expertise by completing the attached questionnaire. The questionnaire is user-friendly and it should take about 5 minutes to complete.

The information provided will be used to determine the employable skills employers expect from graduates after the completion of their studies at a Higher Education Institution.

The questionnaire should be completed anonymously in order to guarantee the objectiveness of the results.

Thank you for your cooperation. Please be assured that your contribution is highly appreciated.

Miemsie de Jager
miemsie@vut.ac.za

ANNEXURE C

QUESTIONNAIRE

Questionnaire

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

The purpose of this questionnaire is to give respondents the opportunity to identify the employable skills that graduates lack when entering the workplace for the first time. Each skill identified consists of several questions pertaining to the competencies required of graduates in the workplace.

Section A refers to the personal information required to validate the data. Respondents are requested to answer the question with an X over the option chosen or, where indicated, in the space provided.

Section B refers to the seven critical cross-field outcomes. These outcomes are captured in the graduates' curricula, but the researcher would like to validate this data. Each criterion must be rated from 1 to 4 where 1 indicates No Satisfaction and 4 indicates Satisfied. Respondents are requested to answer the question with an X over the option chosen.

Section C refers to the core of this study, namely employable skills required from graduates by employers. Each criterion must be rated from 1 to 4 where 1 indicates Total Disagreement and 4 indicates Full Agreement. Respondents are requested to answer the question with an X over the option chosen.

INSTRUCTIONS:

- Please answer all the questions.
- Read the questions carefully and rate each question in relation to your level of agreement.
- Remember that all responses are confidential.
- Any additional information can be added at the end of the questionnaire.

Thank you for your time and valuable input

QUESTIONNAIRE

SECTION A

PERSONAL INFORMATION

Respondents are requested to answer the question with an X over the option chosen.

Please indicate:

1. Your position within the organisation:

HR Manager / Officer	Branch Manager	Head of Department	Supervisor
Line Manager	Sole Proprietor/Owner	Other (Please specify)	

2. Your age:

20-29 years	30-39 years	40-49 years	50-59 years	60+ years

3. Your gender:

Male	Female

4. Your highest qualification:

Grade 12	Matric +3 Diploma / Degree	Matric +4 Honors Degree	Matric +5 Masters Degree
Other (Please specify)			

SECTION B

CRITICAL CROSS FIELD OUTCOMES (CCFO)

Section B reflects on the 7 critical cross-field outcomes and is built into all curricula at Higher Education Institutions. The researcher would however, like to validate the degree to which employers are satisfied that graduates posses the following skills. Respondents are requested to answer the question with an X over the option chosen.

		No satisfaction	Some satisfaction	Reasonable satisfied	Satisfied
1	**PROBLEM-SOLVING SKILLS** are defined as, the ability to identify and solve problems, with responses showing that responsible decisions have been made, using critical and creative thinking.	1	2	3	4
2	**TEAMWORK SKILLS** are defined as the capability to work effectively with others as a member of a team, group, organisation and community.	1	2	3	4
3	**SELF-RESPONSIBILITY SKILLS** are defined as the ability of individuals to organise and manage themselves and their activities responsibly and effectively.	1	2	3	4
4	**RESEARCH SKILLS** are defined as the ability to collect, analyses, organises and critically evaluates information.	1	2	3	4
5	**COMMUNICATION SKILLS** are defined as the ability to communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentation.	1	2	3	4
6	**TECHNOLOGICAL AND ENVIRONMENTAL LITERACY SKILLS** are defined as the ability to use science and technology effectively and critically, showing responsibility towards the environment and health of others.	1	2	3	4
7	**DEVELOPING MACRO VISION SKILLS** are defined as demonstrating an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation.	1	2	3	4

SECTION C

EMPLOYABLE SKILLS

Section C focuses on the employable skills required by graduates on entering the workplace for the first time. Some of the skills areas have been sub-divided and consists of a number of competencies required by the graduate.

Respondents are requested to answer the question with an X over the option chosen.

		Total disagreement	Some disagreement	Reasonable agreement	Full agreement
JOB SEEKING SKILLS					
Do students possess the following competencies and/or ability to:					
1	Compile a professional curriculum vitae?	1	2	3	4
2	Submit a well prepared application?	1	2	3	4
3	Dress appropriately for their interview?	1	2	3	4
4	Compile/present a portfolio of evidence?	1	2	3	4
5	Conduct themselves appropriately during the interview?	1	2	3	4
6	Your overall assessment of graduate's Job Seeking Skills?	1	2	3	4
ACADEMIC SKILLS					
Do students possess the following competencies and/or ability to:					
7	Apply theoretical knowledge in work-related situations?	1	2	3	4
8	Assimilate information?	1	2	3	4
9	Demonstrate a willingness to learn?	1	2	3	4
10	Demonstrate analytical thinking?	1	2	3	4
11	Combine ideas or information in new ways?	1	2	3	4
12	Organise ideas?	1	2	3	4

		Total disagreement	Some disagreement	Reasonable agreement	Full agreement
13	Present information in different formats?	1	2	3	4
14	Your overall assessment of graduate's Academic Skills?	1	2	3	4

PERSONAL/CAREER MANAGEMENT

Do students possess the following competencies and/or ability to:

15	Acquire, organise, interpret and evaluate information regarding their career?	1	2	3	4
16	Conduct career self-assessment?	1	2	3	4
17	Identify and pursue their career goals?	1	2	3	4
18	Engage in continuous learning?	1	2	3	4
19	Demonstrate effective time management?	1	2	3	4
20	Demonstrate effective stress management?	1	2	3	4
21	Adapt to the dynamics of the workplace?	1	2	3	4
22	Accept responsibility?	1	2	3	4
23	Demonstrate a positive self image?	1	2	3	4
24	Display initiative in their career?	1	2	3	4
25	Your overall assessment of graduate's Personal/Career Management?	1	2	3	4

INTERPERSONAL SKILLS

Do students possess the following Interpersonal Skills:

26	Self confidence?	1	2	3	4
27	Self control?	1	2	3	4
28	Initiative?	1	2	3	4
29	Assertiveness?	1	2	3	4

		Total disagreement	Some disagreement	Reasonable agreement	Full agreement
30	Cooperation in a team?	1	2	3	4
31	Flexibility?	1	2	3	4
32	Self discipline?	1	2	3	4
33	Self management?	1	2	3	4
34	Leadership?	1	2	3	4
35	Overall assessment of Interpersonal Skills?	1	2	3	4

WORK ETHICS

Do students display the following:

36	Awareness of ethical responsibilities?	1	2	3	4
37	Honesty?	1	2	3	4
38	Punctuality?	1	2	3	4
39	Conscientiousness?	1	2	3	4
40	Overall assessment of Work Ethics?	1	2	3	4

COMPUTER LITERACY

41	Your overall assessment of graduate's Computer Literacy?	1	2	3	4

ANY OTHER SKILLS/COMPETENCIES/ABILITIES REQUIRED BY GRADUATES THAT ARE NOT INCLUDED OR MENTIONED IN THE QUESTIONNAIRE?

_____

_____

_____

THANK YOU FOR YOUR TIME AND PARTICIPATION

ANNEXURE D

SKILLS DEVELOPMENT ACT

SKILLS DEVELOPMENT ACT
NO. 97 OF 1998

[ASSENTED TO 20 OCTOBER, 1998]
[DATE OF COMMENCEMENT TO BE PROCLAIMED]

(Unless otherwise indicated)

(*English text signed by the President*)

ACT

To provide an institutional framework to devise and implement national, sector and workplace strategies to develop and improve the skills of the South African workforce; to integrate those strategies within the National Qualifications Framework contemplated in the South African Qualifications Authority Act, 1995; to provide for learnerships that lead to recognised occupational qualifications; to provide for the financing of skills development by means of a levy-grant scheme and a National Skills Fund; to provide for and regulate employment services; and to provide for matters connected therewith.

ARRANGEMENT OF SECTIONS

CHAPTER 1
DEFINITIONS, PURPOSE AND INTERPRETATION OF ACT

1. Definitions
2. Purposes of Act
3. Interpretation

CHAPTER 2
NATIONAL SKILLS AUTHORITY

4. Establishment of National Skills Authority
5. Functions of National Skills Authority
6. Composition of National Skills Authority and term and vacation of office
7. Constitution of National Skills Authority
8. Remuneration and administration of National Skills Authority

CHAPTER 3
SECTOR EDUCATION AND TRAINING AUTHORITIES

9. Establishment of SETA
10. Functions of SETA
11. Composition of SETA
12. Chambers of SETA
13. Constitution of SETA
14. Finances of SETA
15. Taking over administration of SETA

CHAPTER 4
LEARNERSHIPS

16. Learnerships
17. Learnership agreements
18. Contract of employment with learner
19. Disputes about learnerships

CHAPTER 5
SKILLS PROGRAMMES

20. Skills programmes
21. Disputes

CHAPTER 6
INSTITUTIONS IN DEPARTMENT OF LABOUR

22. Skills Development Planning Unit
23. Employment services
24. Registration of persons that provide employment services
25. Cancellation of registration of employment service
26. Appeal against Director-General's decision

CHAPTER 7
FINANCING SKILLS DEVELOPMENT

27. National Skills Fund
28. Use of money in Fund
29. Control and administration of Fund
30. Budget for training by public service employers

CHAPTER 8
GENERAL

31. 31. Jurisdiction of Labour Court
32. Monitoring, enforcement and legal proceedings
33. Offences
34. Penalties
35. Delegation
36. Regulations
37. Repeal of laws and transitional provisions
38. Act binds State
39. Short title and commencement

Schedule 1 Repeal of laws
Schedule 2 Transitional provisions

CHAPTER 1

DEFINITIONS, PURPOSE AND APPLICATION OF ACT

1. **Definitions**.--In this Act, unless the context otherwise indicates--

"**Basic Conditions of Employment Act**" means the Basic Conditions of Employment Act, 1997 (Act No. 75 of 1997);

"**Department**" means the Department of Labour;

"**Director-General**" means the Director-General of Labour;

"**employee**" means--

a. any person, excluding an independent contractor, who works for another person or for the State and who receives, or is entitled to receive, any remuneration; or
b. any other person who in any manner assists in carrying on or conducting the business of an employer, and "employed" and "employment" have corresponding meanings;

"**employment services**" means the provision of the service of--

a. advising or counselling of workers on career choices either by the provision of information or other approaches;
b. assessment of work-seekers for--
    i. entry or re-entry into the labour market; or
    ii. education and training;
c. the reference of work-seekers--
    i. to employers to apply for vacancies; or
    ii. to training providers for education and training;
d. assistance of employers by--
    i. providing recruitment and placement services;
    ii. advising them on the availability of work-seekers with skills that match their needs;
    iii. (advising them on the retrenchment of employees and the development of social plans; or
e. any other prescribed employment service;

"**government department**" means any department or organisational component referred to in Schedule 1 or 2 of the Public Service Act, 1994 (Proclamation No. 103 of 1994);

"**Labour Court**" means the Labour Court established by section 151 of the Labour Relations Act, 1995 (Act No. 66 of 1995);

"**Minister**" means the Minister of Labour;

"**National Skills Authority**" means the National Skills Authority established by section 4;

"**national skills development policy**" means the national skills development policy referred to in section 5 (1) (a) (i);

"**national skills development strategy**" means the national skills development strategy referred to in section 5 (1) (a) (ii);

"**National Skills Fund**" means the National Skills Fund established by section 27;

"**NEDLAC**" means the National Economic Development and Labour Council established by section 2 of the National Economic Development and Labour Council Act, 1994 (Act No. 35 of 1994);

"**prescribed**" means prescribed by regulation;

"regulation" means a regulation made and in force in terms of section 36;

"SETA" means a sector education and training authority established in terms of section 9 (1);

"Skills Development Levies Act" means national legislation imposing levies for skills development;

"skills development levies" means the skills development levies payable in terms of the Skills Development Levies Act;

"South African Qualifications Authority" means the South African Qualification Authority established by section 3 of the South African Qualifications Authority Act;

"South African Qualifications Authority Act" means the South Africa Qualifications Authority Act, 1995 (Act No. 58 of 1995);

"this Act" includes any regulations but does not include the footnotes; and

"worker" includes an employee, an unemployed person and a work-seeker.

(Date of commencement of s. 1: 2 February, 1999.)

2. **Purposes of Act.**—(1) The purposes of this Act are—

(a) to develop the skills of the South African workforce—

i. to improve the quality of life of workers, their prospects of work and labour mobility;
ii. to improve productivity in the workplace and the competitiveness of employers;
iii. to promote self-employment; and
iv. to improve the delivery of social services;

(b) to increase the levels of investment in education and training in the labour market and to improve the return on that investment;

(c) to encourage employers—

i. to use the workplace as an active learning environment;
ii. to provide employees with the opportunities to acquire new skills;
iii. to provide opportunities for new entrants to the labour market to gain work experience; and
iv. to employ persons who find it difficult to be employed;

(d) to encourage workers to participate in learnership and other training programmes;

(e) to improve the employment prospects of persons previously disadvantaged by unfair discrimination and to redress those disadvantages through training and education;

(f) to ensure the quality of education and training in and for the workplace;

(g) to assist--

i. work-seekers to find work;
ii. retrenched workers to re-enter the labour market;
iii. employers to find qualified employees; and

(h) to provide and regulate employment services.

(2) Those purposes are to be achieved by--

(a) establishing an institutional and financial framework comprising--

i. the National Skills Authority;
ii. the National Skills Fund;
iii. a skills development levy-grant scheme as contemplated in the Skills Development Levies Act;
iv. SETAs;
v. labour centres; and
vi. the Skills Development Planning Unit;

(b) encouraging partnerships between the public and private sectors of the economy to provide education and training in and for the workplace; and

(c) co-operating with the South African Qualifications Authority.

(Date of commencement of s. 2: 2 February, 1999.)

3. Interpretation.--Any person applying this Act must interpret its provisions to give effect to--

(a) its purposes; and

(b) the objects of the South African Qualifications Authority Act.

(Date of commencement of s. 3: 2 February, 1999.)

CHAPTER 2
NATIONAL SKILLS AUTHORITY

4. Establishment of National Skills Authority.--The National Skills Authority is hereby established.

(Date of commencement: 2 February, 1999.)

5. Functions of National Skills Authority.--(1) The functions of the National Skills Authority are--

(a) to advise the Minister on--

i. a national skills development policy;
ii. a national skills development strategy;
iii. guidelines on the implementation of the national skills development strategy;

iv. the allocation of subsidies from the National Skills Fund; and
v. any regulations to be made;

(b) to liaise with SETAs on--

i. the national skills development policy; and
ii. (the national skills development strategy;

(c) to report to the Minister in the prescribed manner on the progress made in the implementation of the national skills development strategy;

(d) to conduct investigations on any matter arising out of the application of this Act; and

(e) to exercise any other powers and perform any other duties conferred or imposed on the Authority by this Act.

(2) For the purposes of investigations referred to in subsection (1) (d), the Authority has the prescribed powers of entry and to question and inspect.

(3) The Authority must perform its functions in accordance with this Act and its constitution.

(Date of commencement of s. 5: 2 February, 1999.)

6. Composition of National Skills Authority and term and vacation of office.--(1) The National Skills Authority consists of--

a. a voting chairperson appointed by the Minister;
b. 24 voting and three non-voting members appointed by the Minister; and
c. its non-voting executive officer appointed in terms of section 8 (2) (a).

(2) The members referred to in subsection (1) (b) are--

a. five voting members nominated by NEDLAC and appointed by the Minister to represent organised labour;
b. five voting members nominated by NEDLAC and appointed by the Minister to represent organised business;
c. five voting members nominated by NEDLAC and appointed by the Minister to represent organisations of community and development interests, which must include--
    i. a woman who represents the interests of women;
    ii. a person who represents the interests of the youth; and
    iii. a disabled person who represents the interests of people with disabilities;
d. five voting members appointed by the Minister to represent the interests of the State;
e. four voting members appointed by the Minister to represent the interests of education and training providers;
f. two non-voting members, who have expertise in the provision of employment services, appointed by the Minister; and
g. a non-voting member nominated by the South African Qualifications Authority and appointed by the Minister to represent that Authority.

(3) The Minister must designate four members as deputy chairpersons, one deputy chairperson each from the members to be appointed to represent--

a. organised labour;
b. organised business;
c. organisations of community and development interests; and
d. the interests of the State.

(4) A member of the Authority holds office for a period of three years and is eligible for re-appointment.

(5) A member of the Authority vacates office if that member--

a. is removed from office by the Minister as contemplated in subsection (6); or
b. resigns by written notice addressed to the Minister.

(6) The Minister may remove a member of the Authority--

a. on the written request of the body that nominated that member in terms of subsection (2);
b. for serious misconduct;
c. for permanent incapacity;
d. for absence from three consecutive meetings of the Authority--
    i. without the prior permission of the Authority; or
e. unless the member shows good cause; or
f. for engaging in any activity that may undermine the functions of the Authority.

(7) If a member of the Authority vacates office before the expiry of the period of office, the Minister must, in terms of subsection (2), appoint a new member for the unexpired portion of that period.

(Date of commencement of s. 6: 2 February, 1999.)

7. Constitution of National Skills Authority.--(1) The National Skills Authority must, as soon as possible after the appointment of its members, adopt its constitution.

(2) Subject to this Act, the constitution of the Authority--

a. must provide for--
    i. procedures for the nominations of members of the Authority referred to in section 6 (2) (a), (b), (c) and (g);
    ii. the establishment and functioning of committees, including an executive committee;
    iii. subject to subsection (3), the rules for convening and conducting of meetings of the Authority and its committees, including the quorum required for and the minutes to be kept of those meetings;
    iv. the voting rights of the different members and the manner in which decisions are to be taken by the Authority and its committees;
    v. a code of conduct for the members of the Authority;
    vi. the determination through arbitration of any dispute concerning the interpretation or application of the constitution; and
    vii. subject to subsections (4) and (5), a procedure for amending the constitution and advising the Minister on regulations to be made; and
b. may provide for--
    i. the delegation of powers and duties of the Authority to its members, committees and employees, provided that the Authority may impose conditions for the delegation, may not be divested of any power or duty by virtue of the delegation and may vary or set aside any decision made under any delegation; and

ii. any other matter necessary for the performance of the functions of the Authority.

(3) At least 30 days notice must be given for a meeting of the Authority at which an amendment of the constitution or a regulation to be made is to be considered.

(4) A supporting vote of at least two thirds of the Authority's members and the approval of the Minister is required for an amendment to its constitution.

(5) A supporting vote of at least two-thirds of the Authority's members is required for advising the Minister on regulations to be made.

(6) Despite subsection (2) (a) (i), the Minister must determine the procedure for the nominations for the first appointment of members of the Authority referred to in section 6 (2) (a), (b), (c) and (g).

(Date of commencement of s. 7: 2 February, 1999.)

8. Remuneration and administration of National Skills Authority.–(1) A member of the National Skills Authority who is not in the full-time employment of the State may be paid the remuneration and allowances determined by the Minister with the approval of the Minister of Finance.

(2) Subject to the laws governing the public service, the Director-General must–

a. appoint a person to be the executive officer of the National Skills Authority who will, upon such appointment, be in the employ of the public service; and
b. provide the Authority with the personnel and financial resources that the Minister considers necessary for the performance of its functions.

(Date of commencement of s. 8: 2 February, 1999.)

CHAPTER 3
SECTOR EDUCATION AND TRAINING AUTHORITIES

9. Establishment of SETA.–(1) The Minister may, in the prescribed manner, establish a sector education and training authority with a constitution for any national economic sector.

(2) The Minister must determine a discrete sector for the purposes of subsection (1) by reference to categories of employers and for the purposes of that determination take into account–

a. the education and training needs of employers and employees that–
   i. use similar materials, processes and technologies;
   ii. make similar products; or
   iii. render similar services;
b. the potential of the proposed sector for coherent occupational structures and career pathing;
c. the scope of any national strategies for economic growth and development;
d. the organisational structures of the trade unions, employer organisations and government in closely related sectors;
e. any consensus that there may be between organised labour, organised employers and relevant government departments as to the definition of any sector; and
f. the financial and organisational ability of the proposed sector to support a SETA.

(3) On the establishment of a SETA, the Minister may provide assistance to the SETA to enable it to perform its functions.

10. Functions of SETA.–(1) A SETA must–

a. develop a sector skills plan within the framework of the national skills development strategy;
b. implement its sector skills plan by–
    i. establishing learnerships;
    ii. approving workplace skills plans;
    iii. allocating grants in the prescribed manner to employers, education and training providers and workers; and
    iv. monitoring education and training in the sector;
c. promote learnerships by–
    i. identifying workplaces for practical work experience;
    ii. supporting the development of learning materials;
    iii. improving the facilitation of learning; and
    iv. assisting in the conclusion of learnership agreements;
d. register learnership agreements;
e. within a week from its establishment, apply to the South African Qualifications Authority for accreditation as a body contemplated in section 5 (1) (a) (ii) (bb) and must, within 18 months from the date of that application, be so accredited;
f. collect and disburse the skills development levies in its sector;
g. liaise with the National Skills Authority on–
    i. the national skills development policy;
    ii. the national skills development strategy; and
    iii. its sector skills plan;
h. report to the Director-General on–
    i. its income and expenditure; and
    ii. the implementation of its sector skills plan;
i. liaise with the employment services of the Department and any education body established under any law regulating education in the Republic to improve information–
    i. about employment opportunities; and
    ii. between education and training providers and the labour market;
j. appoint staff necessary for the performance of its functions; and
k. perform any other duties imposed by this Act or consistent with the purposes of this Act.

(2) A SETA has–

a. all such powers as are necessary to enable it to perform its duties referred to in subsection (1); and
b. the other powers conferred on the SETA by this Act.

(3) A SETA must perform its functions in accordance with this Act and its constitution.

11. Composition of SETA.–A SETA may consist only of members representing–

a. organised labour;
b. organised employers, including small business;
c. relevant government departments; and
d. if the Minister, after consultation with the members referred to in paragraph (a), (b) and (c), considers it appropriate for the sector–
    i. any interested professional body;
    ii. any bargaining council with jurisdiction in the sector.

12. Chambers of SETA.–(1) A SETA may, with the Minister's approval, establish in its sector chambers.

(2) A chamber so established must consist of an equal number of members representing employees and employers and may include such additional members as the SETA determines.

(3) That chamber must perform those functions of the SETA as delegated to it in terms of the constitution of the SETA.

(4) A chamber of a SETA is entitled to such percentage of the skills development levies collected in its jurisdiction as the Minister after consultation with the SETA determines.

13. Constitution of SETA.–(1) For the purpose of the establishment of a SETA, the Minister must approve the constitution of the SETA.

(2) The Minister may, after consultation with the SETA, amend its constitution in the prescribed manner.

(3) Subject to this Act, the constitution of a SETA–

a. must specify–
   i. the trade unions, employer organisations and relevant government departments in the sector;
   ii. the circumstances and manner in which a member of SETA may be replaced;
   iii. the number of members to be appointed to the SETA, provided that the SETA must consist of an equal number of members representing employees and employers;
   iv. the procedure for the replacement of a member of the SETA by the organisation that nominated that member;
   v. the circumstances and manner in which a member may be replaced by the SETA;
   vi. the election of office-bearers by the members of the SETA and of persons to act during their absence or incapacity, their term of office and functions and the circumstances and manner in which they may be replaced;
   vii. the establishment and functioning of committees, including an executive committee;
   viii. the rules for convening and conducting of meetings of the SETA and its chambers and committees, including the quorum required for and the minutes to be kept of those meetings;
   ix. the voting rights of the different members and the manner in which decisions are to be taken by the SETA and its chambers and committees;
   x. a code of conduct for members of the SETA and its chambers;
   xi. the appointment of an executive officer, and such other employees necessary for the effective performance of the functions of the SETA, by its members, including the determination of their terms and conditions of employment; and
   xii. the determination through arbitration of any dispute concerning the interpretation or application of the constitution; and
b. may provide for–
   i. the delegation of powers and duties of the SETA to its members, chambers, committees and employees, provided that the SETA may impose conditions for the delegation, may not be divested of any power or duty by virtue of the delegation and may vary or set aside any decision made under any delegation; and
   ii. any other matter necessary for the performance of the functions of the SETA.

14. Finances of SETA.--(1) A SETA is financed from--

a. the skills development levies collected in its sector;
b. moneys paid to it from the National Skills Fund;
c. grants, donations and bequests made to it;
d. income earned on surplus moneys deposited or invested;
e. income earned on services rendered in the prescribed manner; and
f. money received from any other source.

(2) The money received by a SETA must be paid into a banking account at any registered bank and may be invested only in--

a. savings accounts, permanent shares or fixed deposits in any registered bank or other financial institution;
b. internal registered stock contemplated in section 21 (1) of the Exchequer Act, 1975 (Act No. 66 of 1975);
c. a unit trust scheme managed by a company which has been registered as a management company in terms of section 4 or 30 of the Unit Trusts Control Act, 1981 (Act No. 54 of 1981); and
d. any other manner approved by the Minister.

(3) The moneys received by a SETA may be used only in the prescribed manner and to--

a. fund the performance of its functions; and
b. pay for its administration within the prescribed limit.

(4) In each financial year, ending on the prescribed date, every SETA must, at a time determined by the Minister, submit to the Minister a statement of the SETA's estimated income and expenditure for the following financial year.

(5) Every SETA must, in accordance with the standards of generally accepted accounting practice--

a. keep proper record of all its financial transactions, assets and liabilities; and
b. within six months after the end of each financial year, prepare accounts reflecting income and expenditure and á balance sheet showing its assets, liabilities and financial position as at the end of that financial year.

(6) The Auditor-General must--

a. audit the accounts, financial statements and financial management of a SETA; and
b. report on that audit to the SETA and to the Minister and in that report express an opinion as to whether the SETA has complied with the provisions of this Act, and its constitution, relating to financial matters.

15. Taking over administration of SETA.--(1) The Minister may, after consultation with the National Skills Authority, by notice in the Gazette, direct the Director-General to appoint an administrator to take over the administration of a SETA if the Minister is of the opinion that--

a. the SETA fails to perform its functions;
b. there is mismanagement of its finances; or
c. its membership no longer substantially represents the composition contemplated in section 11.

(2) In that notice the Minister--

a. must determine the powers and duties of the administrator appointed in terms of subsection (1);
b. may suspend or replace one or more members of the SETA for a reason contemplated in subsection (1) (a), (b) or (c);
c. may suspend the operation of the constitution of the SETA; and
d. may, in the prescribed manner, transfer funds in the SETA's bank account to the National Skills Fund.

(3) If a notice is published in terms of subsection (1), the Minister may, to ensure that the SETA resumes the performance of its functions--

a. amend its constitution;
b. reinstate any of its members; and
c. withdraw or amend any provision of the notice contemplated in subsection (2) on such conditions as the Minister considers appropriate.

CHAPTER 4
LEARNERSHIPS

16. Learnerships.--A SETA may establish a learnership if--

a. the learnership consists of a structured learning component; the learnership includes practical work experience of a specified nature and duration;
b. the learnership would lead to a qualification registered by the South African Qualifications Authority and related to an occupation; and
c. the intended learnership is registered with the Director-General in the prescribed manner.

17. Learnership agreements.--(1) For the purposes of this Chapter, a "learnership agreement" means an agreement entered into for a specified period between--

a. a learner;
b. an employer or a group of employers (in this section referred to as "the employer"); and
c. a training provider accredited by a body contemplated in section 5 (1) (a) (ii) (bb) of the South African Qualifications Authority Act or group of such training providers.

(2) The terms of a learnership agreement must oblige--

a. the employer to--
    i. employ the learner for the period specified in the agreement;
    ii. provide the learner with the specified practical work experience; and
    iii. release the learner to attend the education and training specified in the agreement;
b. the learner to--
    i. work for the employer; and
    ii. attend the specified education and training; and
c. the training provider to provide--
    i. the education and training specified in the agreement; and
    ii. the learner support specified in the agreement.

(3) A learnership agreement must be in the prescribed form and registered with a SETA in the prescribed manner.

(4) A learnership agreement may not be terminated before the expiry of the period of duration specified in the agreement unless--

a. the learner meets the requirements for the successful completion of the learnership;
b. the SETA which registered the agreement approves of such termination; or
c. the learner is fairly dismissed for a reason related to the learner's conduct or capacity as an employee.

(5) The employer or training provider that is party to a learnership agreement may be substituted with--

a. the consent of the learner; and
b. the approval of the SETA which registered the agreement.

(6) A SETA must, in the prescribed manner, provide the Director-General with a record of learnership agreements registered by the SETA.

18. Contract of employment with learner.--(1) If a learner was in the employment of the employer party to the learnership agreement concerned when the agreement was concluded, the learner's contract of employment is not affected by the agreement.

(2) If the learner was not in the employment of the employer party to the learnership agreement concerned when the agreement was concluded, the employer and learner must enter into a contract of employment.

(3) The contract of employment with a learner contemplated in subsection (2) is subject to any terms and conditions that may be determined by the Minister on the recommendation of the Employment Conditions Commission established by section 59 (1) of the Basic Conditions of Employment Act.

(4) Chapters Eight and Nine1 of the Basic Conditions of Employment Act apply, with the changes required by the context, to a determination made in terms of subsection (3) except that--

a. for the purposes of section 54 (3) of that Act, the Employment Conditions Commission must also consider the likely impact that any proposed condition of employment may have on the employment of learners and the achievement of the purposes of this Act; and
b. section 55 (7) of that Act does not apply.

(5) The contract of employment of a learner may not be terminated before the expiry of the period of duration specified in the learnership agreement unless the learnership agreement is terminated in terms of section 17 (4).

(6) The contract of employment of a learner terminates at the expiry of the period of duration specified in the learnership agreement unless the agreement was concluded with a person who was already in the employment of the employer party to the agreement when the agreement was concluded.

19. Disputes about learnerships.--(1) For the purposes of this section a "dispute" means a dispute about--

a. the interpretation or application of any provision of--
    i. a learnership agreement;
    ii. (a contract of employment of a learner; or

iii. a determination made in terms of section 18 (3);
b. this Chapter; or
c. the termination of–
i. a learnership agreement; or
ii. a contract of employment of a learner.

(2) Any party to a dispute may in writing refer the dispute to the Commission for Conciliation, Mediation and Arbitration established by section 112 of the Labour Relations Act, 1995 (Act No. 66 of 1995).

(3) The party who so refers the dispute must satisfy that Commission that a copy of the referral has been served on all the other parties to the dispute.

(4) The Commission must attempt to resolve the dispute through conciliation.

(5) If the dispute remains unresolved, any party may request that the dispute be resolved through arbitration as soon as possible.

(6) The law that applies to the lawfulness2 and fairness3 of a dismissal for a reason related to an employee's capacity or conduct applies to a dispute contemplated in subsection (1) (c) (ii).

CHAPTER 5
SKILLS PROGRAMMES

20. Skills programmes.–(1) For the purposes of this Chapter, a "skills programme" means a skills programme that–

a. is occupationally based;
b. when completed, will constitute a credit towards a qualification registered in terms of the National Qualifications Framework as defined in section 1 of the South African Qualifications Authority Act;
c. uses training providers referred to in section 17 (1) (c); or
d. complies with the prescribed requirements.

(2) Any person that has developed a skills programme may apply to–

a. a SETA with jurisdiction for a grant; or
b. the Director-General for a subsidy.

(3) The SETA or the Director-General may fund the skills programme if–

a. it complies with–
i. subsection (1);
ii. any requirements imposed by the SETA or the Director-General; and
iii. any prescribed requirements; and
b. it is in accordance with–
i. the sector skills development plan of the SETA; or
ii. the national skills development strategy; and
c. there are funds available.

(4) A SETA or the Director-General may set any terms and conditions for funding in terms of subsection (3) that the SETA or the Director-General, as the case may be, considers necessary.

(5) The SETA or the Director-General must monitor the skills programmes funded by the SETA or the Director-General, as the case may be.

(6) A SETA or the Director-General that has made funds available for a skills programme may withhold funds or recover any funds paid if the SETA or the Director-General, as the case may be, is of the opinion that--

a. the funds are not being used for the purpose for which they were made available;
b. any term or condition of the funding is not complied with; or
c. the SETA or the Director-General, as the case may be, is not satisfied that the training is up to standard.

21. Disputes.--Any party to a dispute about the application or interpretation of--

a. any term or condition of funding referred to in section 20 (4); or
b. any provision of this Chapter,

may refer the dispute to the Labour Court for adjudication.

CHAPTER 6
INSTITUTIONS IN DEPARTMENT OF LABOUR

22. Skills Development Planning Unit.--(1) Subject to the laws governing the public service, the Director-General must--

a. establish a Skills Development Planning Unit in the Department; and
b. provide the Unit with the personnel and financial resources necessary for the performance of its functions.

(2) The functions of the Skills Development Planning Unit are--

a. to research and analyse the labour market in order to determine skills development needs for--
    i. South Africa as a whole;
    ii. each sector of the economy; and
    iii. organs of state;
b. to assist in the formulation of--
    i. the national skills development strategy; and
    ii. sector skills development plans; and
c. to provide information on skills to--
    i. the Minister;
    ii. the National Skills Authority;
    iii. SETAs;
    iv. education and training providers; and
    v. organs of state.

23. Employment services.--(1) Subject to the laws governing the public service, the Director-General must--

a. establish labour centres in the Department; and
b. appoint such number of persons in the public service at each centre as is necessary to perform the functions of that centre.

(2) The functions of those labour centres are--

a. to provide employment services for workers, employers and training providers, including improvement of such services to rural communities;
b. to register work-seekers;
c. to register vacancies and work opportunities;
d. to assist prescribed categories of persons--
    i. to enter special education and training programmes;
    ii. to find employment;
    iii. to start income-generating projects; and
    iv. to participate in special employment programmes; and
e. to perform any other prescribed function related to the functions referred to in paragraphs (a) to (d).

(3) The Minister may, after consulting the National Skills Authority, by notice in the Gazette, require each employer to notify a labour centre in the prescribed manner of--

a. any vacancy that employer has; and
b. the employment of any work-seeker referred by that labour centre.

24. Registration of persons that provide employment services.--(1) Any person who wishes to provide employment services for gain must apply for registration to the Director-General in the prescribed manner.

(2) The Director-General must register the applicant if satisfied that the prescribed criteria have been met.

(3) If the Director-General--

a. registers an applicant, the prescribed certificate must be issued to that person; or
b. refuses to register an applicant, the Director-General must give written notice of that decision to the applicant.

(4) A registered employment service must comply with the prescribed criteria.

25. Cancellation of registration of employment service.--(1) Subject to this section, the Director-General may cancel the registration of an employment service if satisfied that the employment service is not complying with the prescribed criteria.

(2) If the Director-General has reason to believe that an employment service is not complying with the prescribed criteria and accordingly that its registration should be cancelled, the Director-General must, before cancelling its registration--

a. notify the service of the intention to cancel registration and the reasons for doing so;
b. give the service 30 days from the date of the notice to make representations on why its registration should not be cancelled; and
c. take those representations into account in reaching a decision.

(3) If the Director-General cancels the registration of an employment service, the Director-General must give written notice of that decision to the employment service.

26. Appeal against Director-General's decision.--(1) Any person aggrieved by a decision of the Director-General in terms of section 24 (3) (b) or 25 (3) may, within 30 days of the written

notice of that decision, in writing, request the Director-General to give that person written reasons for the decision.

(2) The Director-General must give that person written reasons for the decision within 30 days of receiving that request.

(3) Any person aggrieved by a decision of the Director-General in terms of section 24 (3) (b) or 25 (3) may appeal to the Labour Court against that decision within 60 days of–

a. the date of the Director-General's decision; or
b. if written reasons for the decision are requested, the date of those reasons.

(4) The Labour Court may, on good cause shown, extend the period within which a person may note that appeal.

CHAPTER 7
FINANCING SKILLS DEVELOPMENT

27. National Skills Fund.–(1) The National Skills Fund is hereby established.

(2) The Fund must be credited with–

a. 20 per cent of the skills development levies as contemplated in the Skills Development Levies Act;

(Date of commencement of paragraph (a) to be proclaimed.)

b. the skills development levies collected and transferred to the Fund, in terms of the Skills Development Levies Act, in respect of those sectors in which there are no SETAs;

(Date of commencement of paragraph (b) to be proclaimed.)

a. money appropriated by Parliament for the Fund;
b. interest earned on investments contemplated in section 29 (3);
c. donations to the Fund; and
d. money received from any other source.

(Date of commencement of s. 27: 2 February, 1999.)

28. Use of money in Fund.–The money in the Fund may be used only for the projects identified in the national skills development strategy as national priorities or for such other projects related to the achievement of the purposes of this Act as the Director-General determines.

(Date of commencement: 2 February, 1999.)

29. Control and administration of Fund.–(1) The Director-General is the accounting officer of the Fund in terms of the Exchequer Act, 1975 (Act No. 66 of 1975) and must–

a. control the Fund;
b. keep a proper record of all financial transactions, assets and liabilities of the Fund; and

c. as soon as possible after the end of each financial year, ending on the prescribed date, prepare accounts of the income and expenditure of the Fund for the year and a balance sheet of its assets and liabilities as at the end of that year.

(2) Any money in the Fund not required for immediate use may be invested with the Public Investment Commissioner or with a financial institution approved by the Minister and may be withdrawn when required.

(3) Any unexpended balance in the Fund at the end of the financial year must be carried forward to the next financial year as a credit to the Fund.

(Date of commencement of s. 29: 2 February, 1999.)

30. Budget for training by public service employers.--Each public service employer in the national and provincial spheres of government--

a. must budget for at least one per cent of its payroll for the training and education of their employees with effect from 1 April 2000; and
b. may contribute funds to a SETA.

CHAPTER 8
GENERAL

31. Jurisdiction of Labour Court.--(1) Subject to the jurisdiction of the Labour Appeal Court and except where this Act provides otherwise, the Labour Court has exclusive jurisdiction in respect of all matters arising from this Act.

(2) The Labour Court may review any act or omission of any person in connection with this Act on any grounds permissible in law.

(3) If proceedings concerning any matter contemplated in subsection (1) are instituted in a court that does not have jurisdiction in respect of that matter, that court may at any stage during proceedings refer the matter to the Labour Court.

32. Monitoring, enforcement and legal proceedings.--Chapter Ten and Schedule Two of the Basic Conditions of Employment Act apply, with changes required by the context, to--

a. the monitoring and enforcement of this Act; and
b. any legal proceedings concerning a contravention of this Act.

33. Offences.--It is an offence to--

a. obstruct or attempt to influence improperly a person who is performing a function in terms of this Act;
b. obtain or attempt to obtain any prescribed document by means of fraud, false pretences or by submitting a false or forged prescribed document;
c. furnish false information in any prescribed document knowing that information to be false; or
d. provide employment services for gain without being registered in terms of section 24.

34. Penalties.--Any person convicted of an offence referred to in section 33 may be sentenced to a fine or imprisonment for a period not exceeding one year.

35. Delegation.—(1) The Minister may in writing delegate to the Director-General or any other officer of the Department any power or duty conferred or imposed on the Minister by this Act.

(2) The Director-General may, in writing, delegate to any officer of the Department any power or duty conferred or imposed on the Director-General by this Act.

(3) Any person to whom any power or duty has been delegated in terms of subsection (1) or (2) must exercise that power or perform that duty subject to the conditions that the person who made the delegation considers necessary.

(4) Any delegation in terms of subsection (1) or (2)--

a. must be in writing;
b. does not prevent the person who made the delegation from exercising the power or performing the duty so delegated; and
c. may at any time be withdrawn in writing by that person.

36. Regulations.—The Minister may, after consultation with the National Skills Authority, by notice in the Gazette, make regulations relating to any matter which--

a. may or must be prescribed under this Act; and
b. is necessary to prescribe in order to achieve the purposes of this Act.

37. Repeal of laws and transitional provisions.—(1) The laws referred to Schedule 1 are hereby repealed to the extent specified.

(2) The repeal of those laws is subject to any transitional provision in Schedule 2.

38. Act binds State.--This Act binds the State.

39. Short title and commencement.--(1) This Act is called the Skills Development Act, 1998.

(2) This Act takes effect on a date to be determined by the President by proclamation in the Gazette.

Schedule 1

REPEAL OF LAWS

(Section 37 (1))

No. and year of law	Short title	Extent of repeal
Act No. 56 of 1981	Manpower Training Act, 1981	The whole.
Act No. 62 of 1981	Guidance and Placement Act, 1981	The whole.
Act No. 41 of 1985	Local Government Training Act, 1985	The whole
Act No. 106 of 1996	Telecommunications Act, 1996	Sections 78 to 87.

Schedule 2

TRANSITIONAL PROVISIONS

(Section 37 (2))

1. **Definitions**.--In this Part--

"**Guidance and Placement Act**" means the Guidance and Placement Act, 1981 (Act No. 62 of 1981);

"**Local Government Training Act**" means the Local Government Training Act, 1985 (Act No. 41 of 1985);

"**Manpower Training Act**" means the Manpower Training Act, 1981 (Act No. 56 of 1981); and

"**Telecommunications Act**" means the Telecommunications Act, 1996 (Act No. 103 of 1996).

2. **National Training Board**.--Until the chairperson and other members of the National Skills Authority are appointed, the National Training Board, established in terms of section 3 of the Manpower Training Act, continues to exist and to perform the functions of the National Skills Authority.

3. **Manpower Development Fund**.--All assets, rights, liabilities and obligations of the Manpower Development Fund, established by section 38 of the Manpower Training Act, are hereby transferred to the National Skills Fund.

4. **Training boards and apprenticeships**.--(1) Subject to subitem (4), a training board, established and accredited in terms of sections 12A and 12B of the Manpower Training Act, continues to exist and perform its functions as if that Act had not been repealed, until 31 March 2000.

(2) When a training board ceases to exist on 31 March 2000--

a. that training board must be wound up in terms of its constitution; and
b. any apprentice under a contract of apprenticeship, registered by that training board and in existence immediately before the training board ceases to exist, must be dealt with as if the Manpower Training Act had not been repealed except that the Director-General must perform the functions of the training board until that contract of apprenticeship expires.

(3) The Minister must, by notice in the Gazette, abolish a training board before 31 March 2000 if--

a. a SETA is established; and
b. that SETA has jurisdiction over any part of an industry or area in respect of which the training board has been accredited in terms of section 12B of the Manpower Training Act.

(4) When a training board is abolished in terms of a notice referred to in subitem (3)--

a. all the assets, rights, liabilities and obligations of the training board are transferred to the SETA designated in that notice; and
b. any apprentice under a contract of apprenticeship, registered by the training board and in existence immediately before the training board is abolished, must, subject to subitem (6), be dealt with as if the Manpower Training Act had not been repealed except that that

SETA must perform the functions of the training board until the contract of apprenticeship expires.

(5) Subject to sub-item (4) (b), sections 13 to 29 of the Manpower Training Act remains in force as if that Act had not been repealed until a date determined by the Minister by notice in the Gazette.

(6) From the date immediately after the date referred to in sub-item (5)–

a. any trade designated under section 13 (1) of the Manpower Training Act is regarded to be a qualification contemplated in section 16 (c) of this Act;
b. the applicable provisions of any contract of apprenticeship registered in terms of section 18 of that Act are deemed to be a learnership agreement registered in terms of section 17 (3) of this Act and a contract of employment referred to in section 18 (3) of this Act; and
c. any apprentice referred to in section 17 of that Act is regarded to be a learner in relation to such a learnership agreement.

5. Training centres.–(1) In this item "training centre" means any–

a. centre registered as a regional training centre registered in terms of section 31 of the Manpower Training Act;
b. training centre registered as an industry training centre in terms of section 34 of the Manpower Training Act; or
c. training trust established in terms of any law mentioned in Schedule 1 of the Integration of Labour Laws Act, 1994 (Act No. 49 of 1994),

and in existence immediately before the commencement of this Act.

(2) Subject to subitem (3), a training centre continues to exist and perform its functions as if the Manpower Training Act or any law mentioned in Schedule 1 of the Act referred to in subitem (1) (b) had not been repealed.

(3) A training centre must be liquidated4 in terms of its constitution not later than 31 March 2000 unless it has been registered as an association not for gain in terms of section 21 of the Companies Act, 1973 (Act No. 61 of 1973) before that date.

(4) The Director-General may take steps to liquidate a training centre after 31 July 1999 if that centre has not–

a. applied for registration as such an association not for gain; or
b. taken steps to liquidate itself in terms of its constitution.

(5) If a training centre is liquidated, any assets and rights not required to discharge the obligations and liabilities of that centre must be disposed of in accordance with the directions of the Director-General.

(6) Section 32 of the Manpower Training Act remains in force as if the Manpower Training Act had not been repealed, until a date determined by the Minister by notice in the Gazette.

6. Arrangements for training of trainees.–Any arrangement contemplated in section 30 of the Manpower Training Act and in force immediately before the commencement of this Act remains in

force as if the Manpower Training Act had not been repealed, until a date determined by the Minister by notice in the Gazette.

7. Grants-in-aid.–Section 35 of the Manpower Training Act remains in force as if the Manpower Training Act had not been repealed, until a date determined by the Minister by notice in the Gazette.

8. Fund for Training of Unemployed Persons.–(1) Any balance of the Fund for the Training of Unemployed Persons established by section 36A of the Manpower Training Act is hereby transferred to the National Skills Fund.

(2) The balance so transferred may be used only for the training of unemployed persons.

9. Training schemes.–(1) Subject to subitem (2), any scheme declared binding in terms of section 39 (5) of the Manpower Training Act continues as if that Act had not been repealed.

(2) Any such scheme must be discontinued not later than 31 March 2000 unless the scheme has been–

a. registered as an association not for gain in terms of section 21 of the Companies Act, 1973 (Act No. 61 of 1973), before that date, provided that from that registration any notice issued in terms of section 39 (5) in respect of that scheme ceases to be in force;
b. sold with the agreement of the members of the training board with jurisdiction over employers subject to the scheme before that date; or
c. transferred to a SETA with the agreement of those members of the training board before that date.

(3) If that scheme is discontinued, any assets and rights not required to discharge the obligations and liabilities of that scheme must be disposed of in accordance with the directions of the Director-General.

10. Training levies.–(1) Subject to subitem (2), section 39 of the Manpower Training Act remains in force as if the Manpower Training Act had not been repealed, until 31 March 2000.

(2) A notice imposing a levy in terms of section 39 of the Manpower Training Act and issued, before or after the commencement of this Act–

a. may be amended by the Minister, by notice in the Gazette, to provide that the levy be paid to a SETA designated in that notice; and
b. ceases to be in force when withdrawn in terms of the Skills Development Levies Act.

11. Training advisers.–Sections 45 and 46 of the Manpower Training Act remain in force as if the Manpower Training Act had not been repealed, until a date determined by the Minister by notice in the Gazette.

12. Registered work-seekers.–Any work-seeker registered in terms of section 4 of the Guidance and Placement Act immediately before the commencement of this Act is regarded to be a registered work-seeker in terms of section 23 (2) (b).

13. Private employment offices.–Any private employment office registered in terms of section 15 of the Guidance and Placement Act immediately before the commencement of this Act is regarded to be an employment service registered for gain in terms of section 24 of this Act.

14. Local government sector.--(1) The Local Government Training Fund (in this item referred to as "the Fund"), established by section 7 of the Local Government Training Act continues to exist, subject to subitems (5) to (7), as if that Act had not been repealed.

(2) Any body or institution, including a local government body, recognised as a training centre under section 9A of the Local Government Training Act immediately before the commencement of this Act, continues to be so recognised for a period of four months from that commencement as if the Local Government Training Act had not been repealed.

(3) Subject to subitem (7) (c), any levy imposed in terms of section 10 of the Local Government Training Act and in force immediately before the commencement of this Act, remains in force until 31 March 2000 unless withdrawn before that date by the Minister in terms of section 2 (3) of the Skills Development Levies Act as if the Local Government Training Act had not been repealed.

(4) Subject to subitem (7)--

a. the powers conferred and duties imposed on the Training Board for Local Government Bodies established by section 2 of the Local Government Training Act may be exercised and must be performed by the Local Government Education and Training Board established in terms of section 12A of the Manpower Training Act; and
b. all the assets, rights, liabilities and obligations of the Training Board for Local Government Bodies are hereby transferred to the Local Government Education and Training Board.

(5) The Director-General: Constitutional Development must administer the Fund and is the accounting officer for the Fund.

(6) The Minister for Provincial Affairs and Constitutional Development may, after consultation with the Local Government Education and Training Board, utilise the moneys in the Fund to fund any person or institution that in the opinion of the Minister can take action to develop the skills, knowledge, expertise or attitudes of a person elected to a municipal council or employed by a municipality.

(7) When a SETA is established for the local government sector--

a. the Local Government Education and Training Board ceases to exist;
b. the assets, rights, liabilities and obligations of that Training Board must be transferred to that SETA;
c. the levy referred to in subitem (3) is regarded to be a levy imposed in terms of section 39 (1) of the Manpower Training Act as mentioned in item 10;
d. the Fund ceases to exist; and
e. the Director-General: Constitutional Development must transfer any balance of moneys in the Fund into the banking account of that SETA.

15. Telecommunications sector.--(1) Subject to subitem (2), the Human Resources Fund referred to in section 78 (1) of the Telecommunications Act continues to exist as if sections 78 to 87 of that Act had not been repealed.

(2) The Fund referred to in subitem (1) ceases to exist--

a. on 31 March 2000; or
b. on the establishment of a SETA with jurisdiction in the telecommunications sector.

(3) If that Fund ceases to exist in terms of--

a. subitem (2) (a), the balance of the money in the Fund must be transferred to the National Skills Fund; or
b. subitem (2) (b), the balance of the money in the Fund must be transferred to the SETA referred to in that subitem.

(4) Subject to subitem (5), the contributions contemplated in section 86 (1) of the Telecommunications Act which are in force immediately before the commencement of this Act, remain in force until 31 March 2000 as if that Act had not been repealed.

(5) If a SETA with jurisdiction in the telecommunications sector is established, the contributions contemplated in subitem (4) must be credited to that SETA.

16. Exemptions from transfer duty, donations tax or any other tax.--Any transfer of assets or rights contemplated in this Schedule is exempt from transfer duty, donations tax or any other duty or tax.

ANNEXURE E

STATISTICS

	Group	Position	Age	Gender	Qual	B1	B2	B3	B4	B5	B6	B7
Valid N	56	56	56	56	56	56	56	56	56	56	56	56
Mean	1.46	3.63	2.75	1.30	2.75	2.52	2.86	2.48	2.57	2.70	2.71	2.30
Std dev	0.50	1.86	0.96	0.46	1.08	0.95	0.80	0.93	1.08	0.81	0.82	1.03
Median	1	3	3	1	3	2	3	2	2	3	3	2
Maximum	2	6	5	2	5	4	4	4	4	4	4	4
Minimum	1	1	1	1	1	1	1	1	1	1	1	1
Skewness	0.15	0.05	0.27	0.88	0.26	0.34	-0.18	0.12	0.04	-0.03	-0.02	0.40
Kurtosis	-2.05	-1.41	-0.29	-1.28	-0.68	-0.90	-0.50	-0.81	-1.27	-0.51	-0.61	-0.92

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
Valid N	56	55	55	55	55	55	56	56	56	56	56	56
Mean	2.77	2.51	2.75	2.33	2.62	2.44	2.39	2.39	3.00	2.34	2.34	2.41
Std dev	0.81	0.81	0.87	0.88	0.73	0.74	0.68	0.68	0.87	0.82	0.69	0.76
Median	3	2	3	2	3	3	2	2	3	2	2	2
Maximum	4	4	4	4	4	4	4	4	4	4	4	4
Minimum	1	1	1	1	1	1	1	1	1	1	1	1
Skewness	-0.61	0.29	-0.36	0.30	0.16	-0.34	0.40	0.40	-0.68	0.13	-0.24	-0.08
Kurtosis	0.20	-0.43	-0.38	-0.51	-0.34	-0.34	0.13	0.13	-0.04	-0.41	-0.42	-0.31

	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24
Valid N	55	55	56	56	56	56	56	56	56	56	56	56
Mean	2.44	2.64	2.52	2.21	2.39	2.66	2.09	2.18	2.45	2.39	2.61	2.55
Std dev	0.69	0.52	0.85	0.73	0.80	0.82	0.79	0.79	0.78	0.85	0.76	0.76
Median	3	3	3	2	2	3	2	2	2	2	3	3
Maximum	4	3	4	4	4	4	4	4	4	4	4	4
Minimum	1	1	1	1	1	1	1	1	1	1	1	1
Skewness	-0.47	-0.98	-0.33	-0.07	-0.19	-0.54	0.29	0.36	-0.05	0.26	-0.51	-0.32
Kurtosis	-0.32	-0.18	-0.52	-0.55	-0.53	-0.06	-0.37	-0.09	-0.35	-0.43	0.03	-0.17

	C25	C26	C27	C28	C29	C30	C31	C32	C33	C34	C35	C36
Valid N	56	56	56	56	56	56	56	56	56	56	56	56
Mean	2.52	2.68	2.41	2.21	2.30	2.77	2.55	2.36	2.25	2.14	2.50	2.38
Std dev	0.74	0.88	0.76	0.76	0.74	0.79	0.85	0.77	0.69	0.62	0.66	0.91
Median	3	3	2	2	2	3	2.5	2	2	2	3	2
Maximum	4	4	4	4	4	4	4	4	4	4	4	4
Minimum	1	1	1	1	1	1	1	1	1	1	1	1
Skewness	-0.91	-0.32	-0.08	0.40	0.30	-0.26	0.10	0.26	0.63	0.40	-0.20	0.08
Kurtosis	-0.11	-0.47	-0.31	0.14	0.03	-0.21	-0.58	-0.16	0.72	0.87	-0.14	-0.73