

An investigation into the employability skills of undergraduate Business Management students

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ABSTRACT

The globalised world of business is driven by employers with a demand for employees who are skilled in teamwork, communication, problem solving and self-management. In particular new entrants such as graduates need to possess these skills to function effectively in the working environment. However, employers are concerned with graduates' employability level, due to their inability to find graduates with the required skills to effectively contribute and adapt to the working environment.

The employability skills of graduates depend largely on the role of universities in the development of these skills. Therefore, more national and international universities are focusing on enhancing the employability of graduates by collating job-market and economic information. Although this input by universities suggests a signal of change, these initiatives are still not enough to ensure the employability of graduates or their effective functioning in the working environment.

The primary objective of this study is to investigate final-year undergraduate business management students' ability to perform the pertinent employability skills which are deemed essential in the business environment. In this study the participants' ability to demonstrate four employability skills on specific levels were measured. These skills include problem solving, communication, teamwork and self-management.

In this study a multi-methods approach was used to collect, analyse and report data. Multi-methods include both quantitative and qualitative research methods. The quantitative method was used for analysing aspects of problem solving, communication (written and oral) and teamwork by using different tests to determine the participants' skill levels. The qualitative method was used for collecting and report on other aspects of problem solving and self-management. A total of 45 final-year undergraduate business management students took part in this study. Data entry, tabulation and statistical analysis of quantitative data were done by the Statistical Consultation Services of the North-West University (Potchefstroom Campus) whereas qualitative data were analysed by an external expert as well as the researcher.

The results of this study indicate that students are not yet fully competent to demonstrate these employability skills at the end of their studies, which places considerable pressure on universities and lecturers to empower students with employability skills. Although it might seem that employers have high expectations for graduates, employers do not expect candidates to be completely competent when they enter the work environment. The candidates are expected to be able to learn, adapt in the work environment and develop the skills needed for their specific work.

It is recommended that universities must implement skills development strategies and develop close relationships with the private sector in order to establish work-integrated learning initiatives. Students are also expected to develop their own skills by taking initiative and taking responsibility for their own learning and development. Henceforth, it is recommended that lecturers develop their own educational abilities to be able to develop students' employability skills.

The most essential limitations of this study include time constraints and limited funding. The magnitude of data collection also limited the study to focus only on four employability skills namely problem solving, communication (written and oral), teamwork and self-management, pertaining to the employability skills of graduates.

OPSOMMING

Die globale besigheidswêreld word gedryf deur werkgewers met 'n vraag na werknemers wat vaardig is in spanwerk, kommunikasie, probleemoplossing en self-bestuur. Dit is veral krities vir nuwe toetreders tot die mark, naamlik gegradueerdes, om vaardighede te besit om sodoende effektief in die werksomgewing te funksioneer. Werkgewers is egter bekommerd oor gegradueerdes se indiensneembaarheidsvlak, as gevolg van hul probleem om gegradueerdes met die nodige vaardighede te vind om effektief te funksioneer en aan te pas by die werksomgewing.

Die indiensneembaarheidsvaardighede van gegradueerdes hang grootliks af van die rol wat universiteite vervul in die ontwikkeling van hierdie vaardighede. Dit is die rede waarom meer nasionale en internasionale universiteite fokus op die verbetering van die indiensnemingsvlak van gegradueerdes, deur die samestelling van die werkersmark asook ekonomiese inligting. Alhoewel hierdie insette deur universiteite 'n sein van verandering toon, is hierdie inisiatiewe nog nie genoeg om die indiensneembaarheid van gegradueerdes of hul effektiewe funksionering in die werksomgewing te verseker nie.

Die primêre doel van hierdie studie is om finale jaar, voorgraadse sakebestuur studente se vermoë om die pertinente indiensneembaarheidsvaardighede te vertoon wat as noodsaaklik geag word, te ondersoek. In hierdie studie is die deelnemers se vermoë om vier indiensneembaarheidsvaardighede op spesifieke vlakke te demonstreer, gemeet. Hierdie vaardighede sluit probleemoplossing, kommunikasie, spanwerk en self-bestuur in.

In hierdie studie word 'n multi-metode benadering gebruik om inligting in te samel, te ontleed en verslag te lewer oor data. Multi-metodes sluit beide kwantitatiewe en kwalitatiewe navorsingsmetodes in. Die kwantitatiewe metode is gebruik vir die ontleding van aspekte in probleemoplossing, kommunikasie (skriftelik en mondeling) en spanwerk, deur die gebruik van verskillende toetse om sodoende die deelnemers se vaardigheidsvlakke te bepaal. Die kwalitatiewe metode is gebruik vir die insameling en verslagdoening oor ander aspekte van probleemoplossing en self-bestuur. 'n Totaal van 45 finale jaar, voorgraadse sakebestuur studente neem deel aan hierdie studie. Data invoering, tabulering en statistiese ontleding van kwantitatiewe data is gedoen deur die Statistiese Konsultasiedienste van die Noordwes-Universiteit (Potchefstroom-kampus), terwyl kwalitatiewe data deur 'n eksterne deskundige sowel as die navorser ontleed is.

Die resultate van hierdie studie dui daarop dat studente nog nie die vermoë besit om die indiensneembaarheidsvaardighede te toon, wanneer hulle in aanmerking kom vir werk aan die einde van hul studies nie. Dit plaas groot druk op universiteite en dosente om studente met

indiensneembaarheidsvaardighede te bemagtig. Alhoewel dit lyk asof werkgewers te hoë verwagtinge van gegradueerdes het, verwag werkgewers nie dat kandidate ten volle bevoeg hoof te wees wanneer hulle die werksomgewing betree nie. Dit word van kandidate verwag om bereid te wees om te leer, aan te pas in die werksomgewing en hul vaardighede te ontwikkel, soos wat nodig is in hul spesifieke werk.

Dit word aanbeveel dat universiteite vaardigheidsontwikkelingstrategieë moet implementeer en goeie verhoudings met die private sektor moet verseker, om werk-geïntegreerde leerinisiatiewe te vestig. Daar word ook van studente verwag om hul eie vaardighede te ontwikkel, deur inisiatief te neem en verantwoordelikheid te aanvaar vir hul eie leer en ontwikkeling. Derhalwe word dit aanbeveel dat dosente hul eie opvoedkundige vaardighede ontwikkel om die student se indiensneembaarheidsvaardighede te ontwikkel.

Die belangrikste beperkings van hierdie studie is die beperkte tyd en beperkte befondsing. Die grootte van data-insameling is ook in hierdie studie beperk en daarom was dit slegs moontlik om op vier indiensneembaarheidsvaardighede, naamlik probleemoplossing, kommunikasie (skriftelik en mondeling), spanwerk en self-bestuur te fokus.

LIST OF KEY TERMS

For the purpose of clarification and consistency, the key terms namely undergraduate

Business management students, skills, employability skills are defined as follows:

- **Undergraduate business management students:** A graduate student is a student in a university or college who received a first, especially a bachelor's, degree (Random House Dictionary, 2013). Some of these students pursue work opportunities, while others engage in further studies such as an honours degree or diploma at the business school. According to the North-West University in South Africa, the students which are studying business management are offered outstanding managerial training through the pursuance of knowledge, application of knowledge, quality research and innovation (Van der Merwe, 2013). They have an opportunity to develop leadership skills and have an interest in business. Some subjects include an introduction to business management, management principles, marketing, entrepreneurship, logistics, services marketing, financial management, strategic management and business ethics. For the purpose of this study, final-year undergraduate business management students are students who have not yet received their degree, but qualified for studying towards an honours degree with Business management as main subject in their curriculum.
- **Skills:** A skill is an ability and capacity acquired through deliberate, systematic, and sustained effort to smoothly and adaptively carryout complex activities or job functions. It involves ideas (cognitive skills), things (technical skills), and/or people (interpersonal skills) (Business dictionary, 2013).
- **Employability skills:** Employability skills are those skills employers deem necessary for the successful functioning of newly appointed graduates in the work environment. According to Yorke and Knight (2006) employability skills are "a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy." In this study, employability skills will be further evaluated and discussed.

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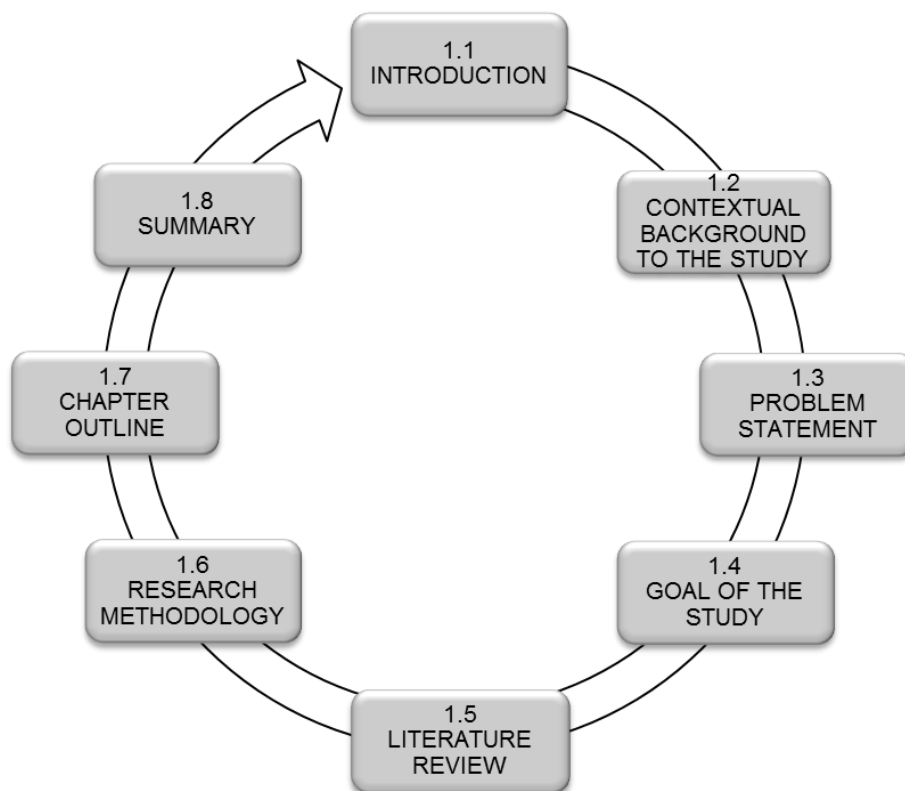
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CHAPTER 1: INTRODUCTION AND OVERVIEW

1.1 INTRODUCTION

This chapter provides an introduction and overview of the problem that represents the focus of this study. It furthermore explains the manner in which the problem is addressed throughout the course of the study, and specifically on investigating the employability skills of undergraduate students. Chapter 1 commences with contextual background information regarding the study, formulates the problem statement, goal of the study (primary and secondary objectives), provides a literature overview and concludes with a brief discussion of the research methodology and chapter outline followed in this study. Figure 1.1 provides an abbreviated synopsis of Chapter 1 pertaining to the main sections that are to be discussed.

Figure 1.1: Chapter 1 abbreviated synopsis



1.2 CONTEXTUAL BACKGROUND TO THE STUDY

The skills of graduates are a contentious issue for international and national employers. The concerns of employers stem from their inability to find graduates with the required skills to effectively contribute and adapt to the work environment (Hesketh, 2000:245). This concern lead employers to put blame on universities who they feel are responsible for developing the

skills employers request from newly employed graduates (Harvey, 2005:13). Since many universities focus on their traditional role, which is to prepare the elite to govern the nation and to provide a basis for research, universities are not always successful in preparing graduates for the demands and challenges of the work environment. Universities often expect students to master only subject matter with limited exposure to the demands of the work environment (Yorke & Knight, 2006:5). The pressure universities experience from the private sector to enhance the employability of graduates led to a major shift in the role of universities over the last decade (Barnard & Nel, 2009:3). According to Cox and King (2006:262) universities are focusing more on employability and preparing the graduates for the work environment.

Nowadays more international and national universities are focusing on enhancing the employability of graduates by collating job-market and economic information (Tran, 2010:9). Lecturers at universities assist students in preparing for job interviews; encourage students to take holiday work opportunities, run job clubs and support students' search for part-time and casual work, and run workshops on a range of areas (Tran, 2010:9). Although this input by universities suggests a signal of change, these initiatives are still not enough to ensure the employability of graduates (Tran, 2010:9). Employers expect the graduates they employ to hold specific skills such as logical thinking, quick learning, communication skills, flexibility, ambition, high levels of motivation, creativity, critical thinking, initiative, teamwork and time management (Lester, 2013:1). The lack of these skills in graduates has impacted the employability of graduates in recent years to a large extent. More unemployed graduates are emerging and therefore necessitate a skills revolution in the curricula of universities (Griesel & Parker, 2009:2).

1.3 PROBLEM STATEMENT

Although employers place high value on new graduated entrees with the correct skills, all employers are not satisfied with the available graduated workforce (Pindar, 2013:1). In 2010 a study in Malaysia involving 312 companies found that 77.6% of the participants were of the view that business management graduates lack the required skills to function effectively in the workplace (Yen, 2010:1). In Britain, employers reported that despite the yearly increase in applicants, they found disappointingly thin pickings; especially graduates with skills pertaining to commercial awareness and thinking skills such as problem solving (Black, 2010:1). Even in South Africa employers are not positive about graduates' readiness for work. South African employers accentuate that graduate students have problems integrating data and cannot really apply the complex problem-solving skills that are required in the workplace (John, 2012:1).

Since universities are feeding the industry with a presumably well rounded educated workforce, the negative perceptions towards graduates should be investigated by universities. Universities should consider an outward-looking approach, and work closely with industries and employers. This will enable universities to identify specific skills that graduates need to enhance their employability (Tran, 2010:4).

The current trend in research as well as universities is to develop a list of skills which enhances graduate employability (Tran, 2010:5). Some authors are of the opinion that a list of skills is nebulous and pointless (Smith & Comyn, 2003). York and Harvey (2005:53) emphasise that it is impossible to compile a list of generic skills which will satisfy all employers. Since employability is the propensity of graduates to secure a job and progress in their career, employability is not just about getting a job, but mastering the skills needed to perform and excel in the work environment (Harvey, 2005:18). Attention should therefore be given to the specific skills graduates should master to obtain employment and function effectively in the work environment.

The reason for this study is to investigate students' ability to perform the pertinent employability skills which are deemed essential in the business environment.

1.4 GOAL OF THE STUDY

1.4.1 Primary goal

The primary goal of the study is to investigate the employability skills of final-year undergraduate business management students and determine whether they are able to perform the pertinent employability skills which are deemed essential in the business environment.

1.4.2 Secondary objectives

The objectives of the study are to:

- Investigate the development of employability.
- Identify the skills deemed necessary for graduate employability.
- Investigate the role of universities in the development of employability skills.
- Evaluate the employability skills of final-year undergraduate business management students.

In table 1.1 an outline illustrates the connection between the secondary objectives, associated chapters and research phases in this study. Subsequently, a literature overview and a brief discussion of the research methodology conducted for this study are also provided.

Table 1.1: An outline of the secondary objectives, the associated chapters and research phases

Secondary research objective	Chapter	Research phase
1	Chapter 2: A conceptual framework for graduate employability	Literature review
2-3	Chapter 3: Employability skills	Literature review
4	Chapter 4: Research methodology	Research method
	Chapter 5: Empirical results	Empirical research
1-4	Chapter 6: Conclusions and recommendations	Conclusions and recommendations

1.5 LITERATURE REVIEW

In this research a literature study was conducted to show familiarity with the topic and to combine existing knowledge (Neuman, 2003:96).

In order to conduct the literature study, scholarly articles, relevant books, subject specific journals and websites such as the business journal, SAGA dictionary and research methodology sites was used. Articles and journals were obtained from different databases which include EbscoHost, SAePublications, Emerald, Nexus, ProQuest and SACat. Electronic search engines such as Google and Google Scholar (www.google.com) were used to familiarise the researcher with current informal trends regarding the concepts at hand. Books were used to cover a wide range of subjects that are specific to this research. These books included subjects such as management, competencies required in an organisation, skills development, research methods and procedures.

Some of the sources that were consulted date back as far as 1966. The reason for consulting these older sources can be attributed to the fact that their contributions, based on the authors' view of a specific school of thought or concept, are important in order to understand the full impact of the research problem. In addition, older sources are used in order to include primary sources instead of secondary sources for purposes of scientific accuracy. With the assistance of older resources, recent and current research in the field of social sciences is placed into proper perspective.

1.6 RESEARCH METHODOLOGY

The research design of this study will be subsequently discussed.

1.6.1 Research design

For the purpose of the study, descriptive research was conducted. This research is used to describe an event or happening and to provide a truthful and accurate description about the population. In a descriptive study the phenomenon being measured is measured as it is with no intervention from the researcher (Singh, 2007:431).

In this study a multi-methods research design was used to collect primary data. Multi-methods include both quantitative and qualitative research methods. Quantitative data were collected by means of tests which were assessed. Based on the scores obtained by the participants, they were rated on four-point Likert scales for statistical analyses. Qualitative data were collected by means of document analyses, observations and semi-structured interviews.

1.6.2 Research population

A study population can be described as the collection of elements that are chosen to conduct a study or the group of individuals that have been selected to partake in the study (Adler & Clark, 2010). The population of this study are final-year undergraduate business management students. The participants from this population included in this study was all final-year undergraduate business management students who applied and qualified for the business management and marketing honours degree at the North-West University (N=45) at the end of 2013. Since this sample of respondents is seen as being eligible for employment as graduates they were conveniently purposive selected to partake in this study. Although their involvement in this study was voluntary, none of the respondents declined their involvement.

1.6.3 Pilot study

A pilot study was performed with twenty undergraduate students who registered for the post-graduate diploma in Business Management. The use of pilot studies examines respondents' reaction to questions (McDaniel & Gates, 2010:339). Accordingly, the aim of the pilot study was to clear up any misunderstandings in terms of the reliability of the data collection methods.

The respondents of the pilot study gave no indication of any ambiguity of words or the questions pertaining to the various data collection methods. They had a clear understanding of what was expected of them. For this reason no changes were made to the tests or methods used in this study.

1.6.4 Research instruments

Since no standardised questionnaires were available which could be used within the context of this study, all research instruments were designed from literature, existing questionnaires and studies. The research instruments were constructed to meet the objectives of the study and experts in the field of business management were involved to ensure the objectivity of the data collection and interpretation. All the instruments used was analysed to ensure adherence with the code of ethics formulated by the North-west University.

Since this study used a multi methods design, different data collection methods and instruments were used to collect data. The objectives of the study were the foundation for choosing the methods and instruments used. For qualitative data collection three methods were used which included document analysis, observation and interviews. A qualitative research method is open, in-depth and unstructured which is used to determine 'why' and 'how' situations occur as they do (Berndt & Petzer, 2011:45). For the quantitative data collection two skills tests were used to collect data. The respondents completed the tests, which were assessed by the researcher and controlled by an expert in the applicable field of study. The assessed tests were then graded and the grades were transferred to a four-point Likert scale for statistical analysis.

1.6.5 Data analysis and reporting

All the skills tests were developed with the assistance of an expert in the field of study. The responses from the various research methods was either analysed by the researcher, experts or the statistical division of the North-West University for accurate data analysis and quality purposes.

Quantitative data analysis was coded by SPSS version 20 by IBM. Coding the data is described as assigning each question with a number value and categorising the data from the Likert scale.

The SPSS program makes reading the data easier and having correct interpretations with good graphical presentations. This study subsequently reported on the results obtained and analysed in terms of the research objective of this study.

The qualitative data analysis was conducted by using document analysis, observations and semi-structured interviews. The document analysis was done specifically to determine the way in which participants answered the questions and their ability to perform the employability skills. The data analysis of the observations was executed by both the expert in the field of study and the researcher. The researcher furthermore performed interviews with nine participants who

were randomly selected. The interview was recorded and transcribed by an expert and thereafter themes were selected to report on the interviews qualitatively.

1.6.6 Triangulation

With triangulation a researcher uses two different research methods, one qualitative and the other quantitative, in order to reach similar conclusions (Berndt & Petzer, 2011:50). The benefits of triangulation include increasing confidence in research data, creating innovative ways of understanding a phenomenon, revealing unique findings, challenging or integrating theories, and providing a clearer understanding of the problem (Thurmond, 2001:254). These benefits result from the diversity and quantity of the data that can be used for analysis.

In this study, methodological triangulation was used and it involves the use of multiple qualitative and/or quantitative methods to study the data (Guion, Diehl & McDonald 2013:1). In this study some of the conclusions of the methods were the same which contributed to the establishment of validity. This method is popular and although it generally requires more resources and time to analyse the information from the different methods, it is valuable and strengthens the reliability of the results (Guion *et al.*, 2013:1).

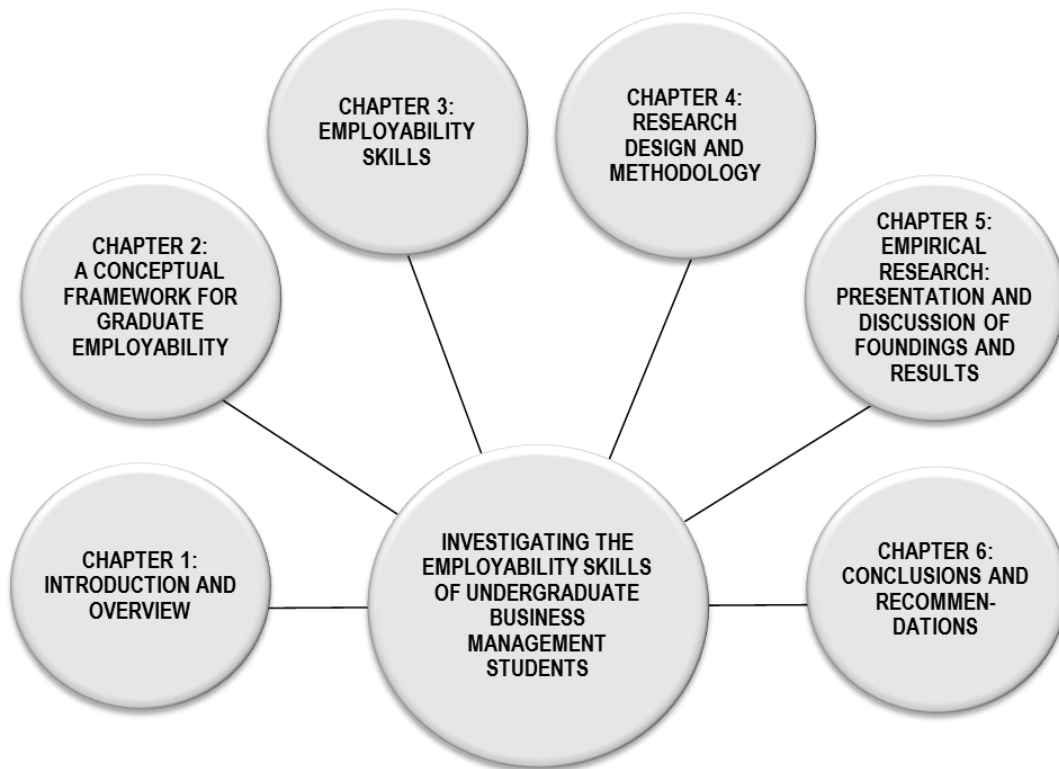
1.6.7 Validity and reliability

According to Pallant (2010:7) validity refers to the extent to which a measurement set measures the construct it intends to measure, whereas reliability refers to the similarity of results provided by independent but comparable measures of the same object, trait, or construct. Ensuring the validity and reliability in quantitative and qualitative research differ largely in terms of the methods used. In this study the quantitative research validity and reliability was increased by piloting the skills tests and the inclusion of experts in the field of statistical analysis. The validity and reliability of the qualitative research was increased by consulting and including experts to assist with data collection and analysis. The research involved all aspects of the quantitative and qualitative research and accordingly special attention was given to the Hawthorne effect of involvement (Coombs, 2003:97-110). The Hawthorne effect implies that participants should not be influenced by the research situation.

1.7 PRELIMINARY CHAPTER CLASSIFICATION

This section provides a chapter outline for this study, which is supported by the schematic illustration of the chapter structure in Figure 1.2.

Figure 1.2: Chapter outline of study



- **Chapter 1** provides an introduction and overview of the research problem that represents the focus of this study. It furthermore explains the manner in which the problem is addressed throughout the course of the study. The chapter commences with contextual background information regarding the study, formulates the problem statement and goal of the study (primary and secondary objectives), provides a literature overview and concludes with a brief discussion of the research methodology and chapter outline in this study
- **Chapter 2** commences with an in-depth investigation into developmental and emerging views on graduate employability. Following this discussion, different theories and models of graduate employability are discussed to determine the impact of these theories and models on graduate employability. The chapter concludes with a global perspective on the development of skills. In this analysis, an international and national perspective will be evaluated.
- **Chapter 3** provides an in-depth focus on employability skills, by firstly focusing on employability and the skills needed by graduates as two separate concepts. Thereafter, employability skills are discussed as one concept. Following this discussion, an analysis of employer expectations and student expectations are outlined. Hence, the four most important skills for employability are determined and accordingly discussed in detail.

- **Chapter 4** is devoted to the research methodology and processes used to achieve the objectives of this study. The structure of this chapter is guided by the stages involved in the research process used in this research study. The chapter consequently examines the research design, data collection method and forms, sampling and collection of data, and analysis and interpretation of data.
- **Chapter 5** builds on the research methodology by reporting, explaining and interpreting the empirical results. This chapter starts off with a discussion of the population. The remainder of the chapter engages with the results from the statistical techniques used by the quantitative as well as the qualitative measures in this study.
- **Chapter 6** commences with a brief overview of the study followed by a link diagram that provides a summary of the relationship between the primary and secondary objectives, the main findings, conclusions and the recommendations. Subsequently, a number of conclusions are drawn for each secondary objective, some based on theory, such as provided in Chapters 2 and 3, and others based on the main findings. Recommendations pertaining to each secondary objective are furthermore formulated. The chapter concludes with limitations pertaining to this study, and indicates future research possibilities.

1.8 SUMMARY

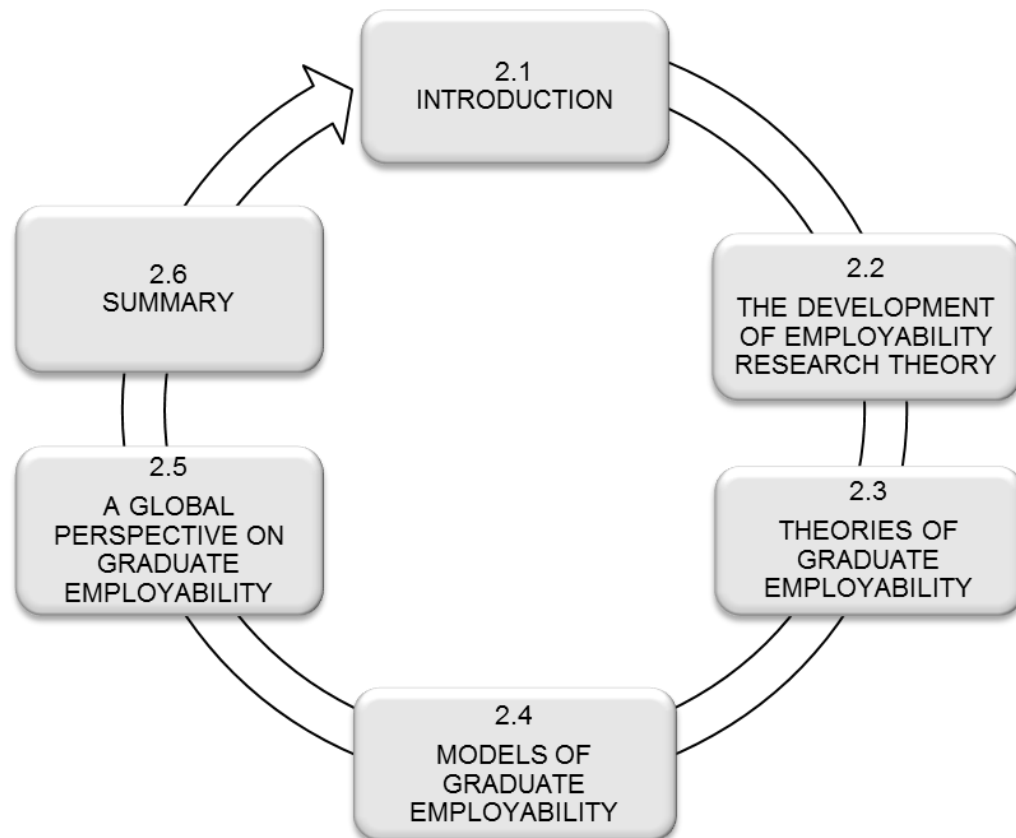
This chapter serves as an introduction and overview of the problem that constitutes the focus of the study. It commenced with contextual background information regarding the study, formulated the problem statement and goal of the study (primary and secondary objectives), and provided a literature overview. The chapter concludes with a brief discussion of the research methodology and chapter outline followed in this study.

CHAPTER 2: A CONCEPTUAL FRAMEWORK FOR GRADUATE EMPLOYABILITY

2.1 INTRODUCTION

In the business environment employers are reluctant to hire employees on the basis of education status alone (Symington, 2012:15). They want employees to be job-ready so that they are able to contribute to the organisation's competitiveness in a fast paced, technological advanced and global business environment as soon as possible. For graduates who do not have any job experience, this is problematic since they are unable to offer in most instances anything other than their qualifications as evidence of their knowledge and skills. Since there is a worldwide growing concern by employers over the last decade about the skills newly appointed graduates bring to the workplace, employability and moreover graduate employability have been the focus of increased debates in the labour market for the last decade (Brown *et al.*, 2003:109).

In this chapter a conceptual framework for the study is provided by an in-depth discussion of graduate employability, especially in terms of the theory of employability. An overview of the development of employability theory over the last century will precede an in-depth discussion on the consensus and conflict theory. These theories support different models of graduate employability, which reinforce the understanding and development of contextual knowledge of graduate employability. Finally, a global perspective on the development of skills pertaining to employability will be discussed. Figure 2.1 provides an abbreviated synopsis of Chapter 2 pertaining to the main sections that are to be discussed.

Figure 2.1: Chapter 2 abbreviated synopsis

2.2 THE DEVELOPMENT OF EMPLOYABILITY RESEARCH THEORY

Over the last century many theorists have discussed and contributed to the study of employment. One of the leading theorists of employability, Gazier (2001:3-23) argues that employability has developed in seven stages. The first of these stages dates back to the beginning of the 20th century when the research focus was mainly on the dichotomy employability. This approach which emerged from Britain and America refers to the opposite poles of being employable and unemployable. The dichotomists' basic views of employable and unemployable individuals are reflected in their descriptions of these concepts. They referred to employable individuals as those who are able and willing to work where unemployable individuals are those who are unable to work and in need of some type of relief. Further research gained insight into the concept of employability which progressed to a socio-medical approach in the 1950s. At this time research mainly focused on the contrast between the work abilities of socially, physically and mentally disadvantaged people and the work requirements for being employable. During the 1960s the socio-medical researchers extended their parameters to include the manpower policy for employment. This policy which focused on socially disadvantaged groups closed the gap between the work abilities of employees and the work requirements expected by employers. At the same time, a significant shift in research focus led

to the development of the flow employment approach. This approach which emerged in French literature in the 1960s focused only on the demand side and the accessibility of employment in local and international markets. According to the flow employment research approach employability is “the objective expectation, or probability, that a person who is looking for a job, can find one” (Ledrut 1966, quoted in Gazier, 1998:44). From this approach, employability research progressed to focus mainly on the labour markets with the theme of performance employability. In the 1970s this approach gained momentum internationally with investigations which focused on labour market outcomes achieved by policy interventions. The market outcomes mainly measured labour performance according to variables such as days employed, hours worked and payment rates. This research approach, labelled initiative employability, led to the appearance of skills development research in the late 1980s in North America and Europe. The initiative employability approach focused mainly on the development of those skills individuals needed to be transferable and flexible between jobs. Since the 1990’s research included interactive employability which emphasised that the employability of an individual is relative to the employability of others in terms of the opportunities, institutions and rules that govern the labour market.

Current post-millennium employability research focuses largely graduate employability, which is a growing concern for employers, governments as well as universities. In recent years employers worldwide voiced their concerns regarding the employability of graduates and more pressure is put on universities and governments to supply work-ready graduates (Brown *et al.*, 2003:109; Tomlinson, 2007:285). Stemming from these concerns, current employability research is based on the consensus and conflict theories and motivated by three factors that influence an individual’s ability to gain initial employment, maintain employment, move between roles in the same organisation, and (ideally) secure a suitable and fulfilling work (Hillage & Pollard, 1998). The first factor is the decline of industrial production and the rise of a services-based economy which demand a new form of preparation for the labour market. Secondly, education and work are prioritised as methods for ending poverty, social exclusion as well as the so-called welfare states. The third factor is the notion of lifelong learning and boundary less careers which opens up the labour market with new opportunities for individuals to investigate.

2.3 THEORIES OF GRADUATE EMPLOYABILITY

The Consensus and Conflict Theories which date back to the nineteenth century provide opposing theoretical bases for the changing relationship between universities, employment and the labour market in terms of graduate employability (Brown *et al.*, 2003). In general the Consensus Theory researchers (par. 2.3.1) states that the introduction of generic skills at universities will enhance the employability of graduates and enable them to subsequent

progress in the corporate environment (Selvadurai *et al.*, 2012). The Conflict Theory researchers (par. 2.3.2) on the other hand argue that universities alone are not responsible for skills development. These researchers argue that employers are equally responsible for the development of newly appointed graduates' employability skills. According to Conflict Theory employers need to work with universities to ensure that students develop those skills which are deemed important for functioning successfully in the work environment.

Despite the opposing approach of the Consensus and Conflict Theories to graduate employability, both agree that graduates should possess a variety of skills before they enter the work environment. Although the acquisition of suitable skills may not ensure access to employment, it will increase graduates' chances to gain initial employment (Brown *et al.*, 2003).

2.3.1 Consensus Theory

The Consensus Theory focuses on social norms and cultural beliefs that social groups have in common (Brown *et al.*, 2003). This theory states that the development of generic skills at universities will enhance the employability of graduates and assist them to perform in the workplace. According to these theorists universities should enhance employability by incorporating the development of generic skills into university curriculums (Fallows & Steven, 2000). Generic skills can be divided into four focuses. The first focus is retrieval and handling information (classification and analysis). Secondly, graduates need to be able to communicate and present information in suitable formats (written and oral communication). The third focus refers to planning and problem solving (critical evaluation, practical and technical experience) and finally graduates need to be skilled in social development and interaction (interpersonal, responsibility, teamwork). The inclusion of these generic skills into curriculums needs to be a priority by universities, since knowledge of academic subjects alone is believed to be inadequate in the current economic environment. It is therefore vital that universities review and adapt their curriculums to infuse generic skills through different means (Selvadurai *et al.*, 2012).

In addition, the Consensus Theory holds universities not only responsible for the inclusion of skills in curriculums, but also for effective pedagogical methods to ensure that the skills are appropriately educated (Selvadurai *et al.*, 2012). Pedagogical methods most suitable for the development of generic skills could range from situated learning; problem based learning or active discovery learning. Situated learning entails learning on an active construction process and not a passive absorption of knowledge. Problem based learning refers to learning based on experiencing and solving different problems that might occur. The active discovery learning enables students to actively investigate problems autonomously and gain new insight into complex issues (Library, 2012).

Although the consensus theory holds valuable insights regarding the development of employability skills, it has been criticized extensively. One of the major criticisms against this theory is its disregard that individuals will enhance their employability skills at the expense of others (Brown *et al.*, 2003). Another critique against this theory is that employability is presented as a skills-based problem that needs to be solved according to the demands from employers and that universities and graduates alone are responsible to ensure employability. According to various critics, this theory also inaccurately states that class, gender and racial inequalities are ignored in the employability context (Brown *et al.*, 2003).

2.3.2 Conflict Theory

The Conflict Theory states that the employer and universities should collectively develop the skills of graduates in order to be employable (Brown *et al.*, 2003). According to the Conflict Theory researchers, employers should take responsibility in providing workplace experience and skills development of graduates and not direct the responsibilities to the universities alone. This theory also highlights the conflict between employers and universities which stems from employers being unsatisfied with university efforts to provide graduates with adequate generic skills to perform in the working environment (Selvadurai *et al.*, 2012).

Conflict Theory researchers divide generic employability skills into three contextual areas. Although some elements of these areas overlap, each contextual area views employability from a different standpoint. The first area is the university context which suggests that graduates should be skilled in written communication, oral communication, teamwork, analysis, and critical evaluation. The next contextual area focuses on work placement, which suggests that the correct placement of graduates in the workplace would be influenced by their ability to communicate orally and in written format, their knowledge of subject matter, their practical and technical experience as well as their interpersonal skills. The final area is the employment context. This context focuses on graduates' ability to receive employment as well as keeping the employment. The employment context therefore focuses on graduates' ability to communicate orally and in written format, work in teams, their ability to assume responsibility and make decisions, their practical and technical experience as well as their interpersonal skills (Crebert, 2002).

Since the conflict theory claims that universities and employers need to work together to develop graduates' employability skills it is suggested that graduates' work experience should already be developed during their studies. For universities this means that they need to include internship programs into their curriculums and employers need to provide opportunities for graduates to develop employability skills (Selvadurai *et al.*, 2012).

From the discussion thus far it is evident that the Consensus Theory holds universities responsible for developing the generic skills of graduates, whereas the Conflict Theory places the responsibility on both universities and employers. Although this study focuses on the graduates' employability skills from a university context, it is argued that both universities and employers should partake in the development of graduates' employability skills. In the current global and economic environment, research favors the dual responsibility of universities and employers in the development of graduates' employability skills. The Conflict Theory is therefore seen as the basis from which graduate employability skills should be developed. In order for universities and employers to focus on the development of graduates' employability skills, various models based in both theories exist to guide the development and creation of strategies on graduate employability for both universities and employers.

2.4 MODELS OF GRADUATE EMPLOYABILITY

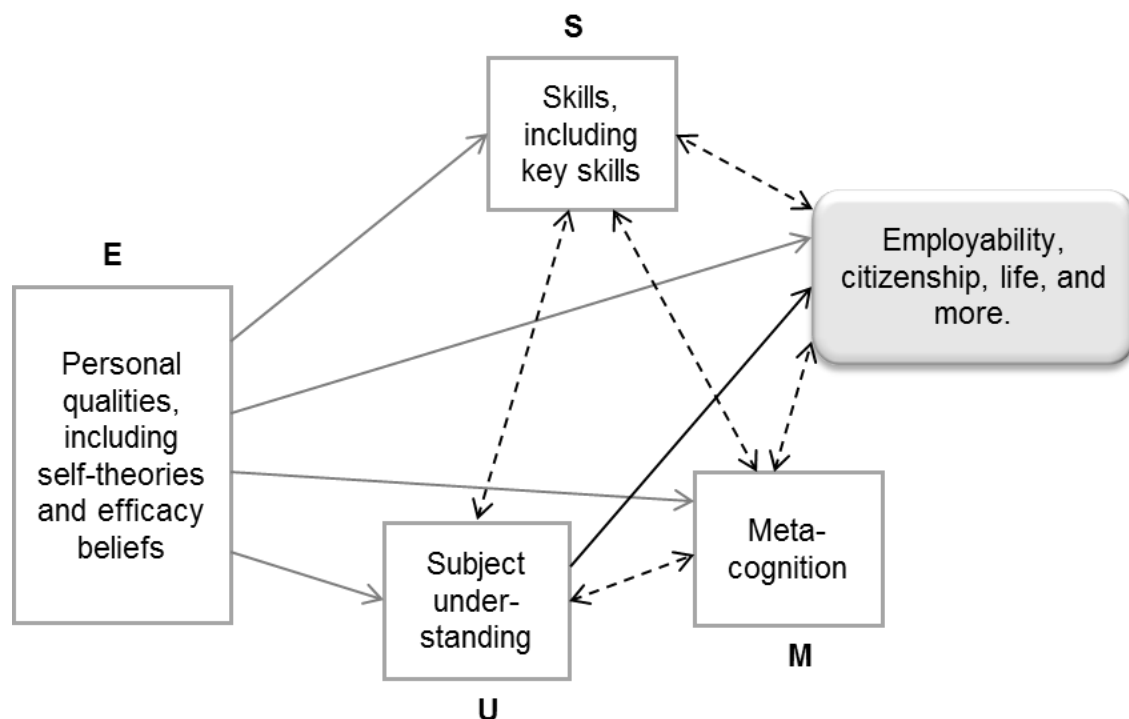
Various models incorporating different researchers' viewpoints on graduate employability are evident in literature. Although some employability models focus on employability in general, others are developed for specific contexts or situations such as lifelong learning, psychological resources and the supply and demand side of employability. Since this study supports the Conflict Theory from a university context, four models which focus specifically on graduate employability and the skills needed for employability from a university context include the USEM model (Understanding, Skilful practices, Efficacy beliefs, Meta-cognition) (par. 2.4.1), which focuses on the four broad components of graduate employability; the Bridgestock's conceptual model (par. 2.4.2) of graduate attributes for employability; the graduate employability model (par. 2.4.3), that is a recent explanation of graduate employability, as well as the basis of competence model (par. 2.4.4) that recognises the gap in skills development of graduates.

2.4.1 USEM model

The USEM model (fig. 2.2) which is an abbreviation for four broad and interrelated components (Understanding, Skilful practices, Efficacy beliefs, Meta-cognition) is widely accepted and influential in employability literature and incremental to understanding graduate employability and the cohesion with universities (Pool & Sewell, 2007:277-289). Although the first component is referred to as understanding some researchers also use the concept knowledge. However, the concept understanding is seen as encompassing a more in-depth meaning. For universities it is a key outcome to produce graduates who are knowledgeable about the industry they are studying towards. Universities therefore need to provide a sound basis of subject related knowledge and industry understanding. The following component, skilful practices, refers not only to the skills graduates should master, but also the application of these skills in real-life

situations. The third component, efficacy beliefs, refers to graduates' self-theories and personal qualities. According to this model it is essential to determine the extent to which graduates feel that they might be able to make a difference in the workplace. Graduates are motivated to rather have flexible self-theories, than fixed theories, where they rather see tasks as opportunities for learning rather than performance-oriented opportunities to demonstrate competence. The final component, meta-cognition, focuses on the students' self-awareness regarding their learning. This includes various elements on 'learning how to learn', their ability to be self-regulated learners as well as their ability to reflect on learned subject matter and practice.

Figure 2.2: The USEM model



Source: Yorke & Knight, 2006:5.

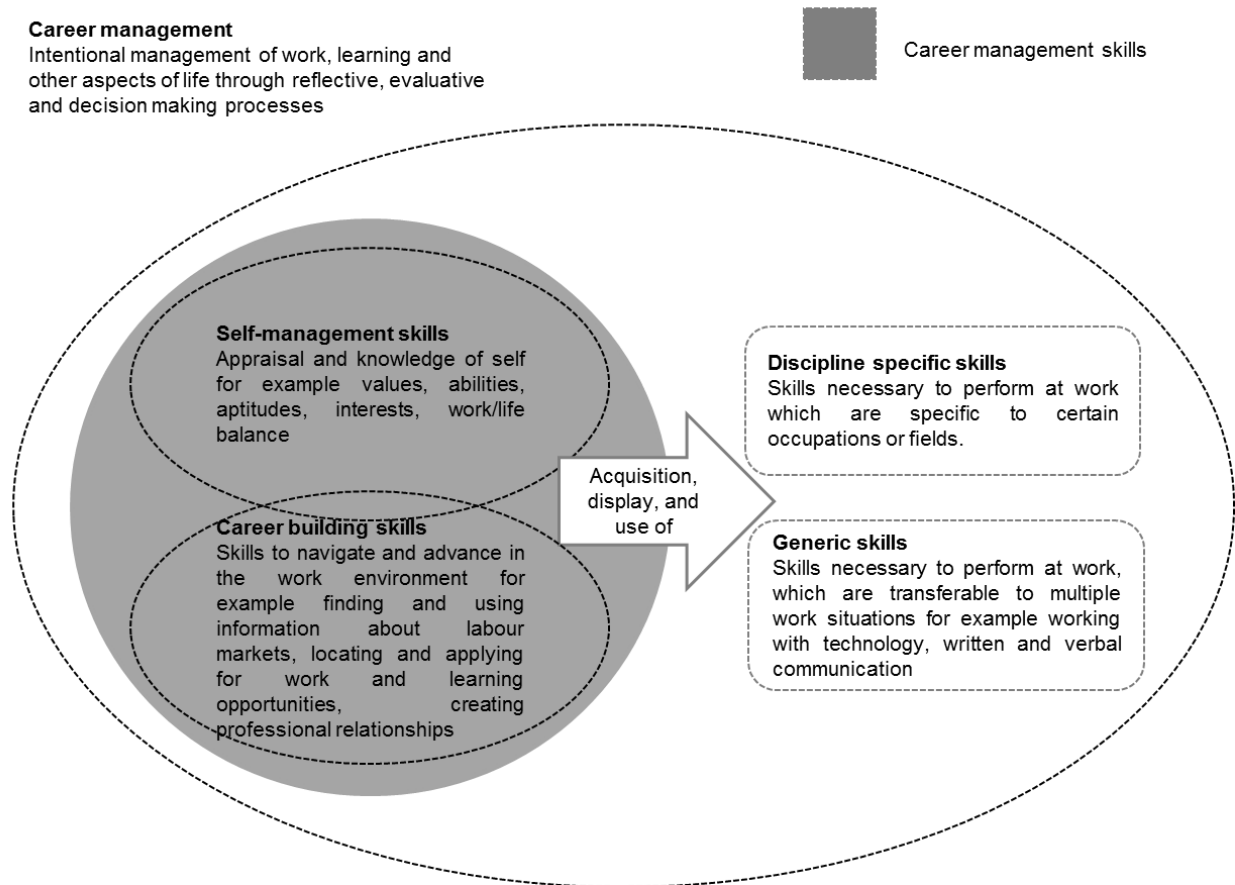
The USEM model differentiates between the key components which reflect the relationship between learning and employability. Employability and learning are seen as being closely aligned and not as oppositional constructs. The USEM model accentuates this alignment with the interrelated arrows as indicated in figure 2.2 (Yorke & Knight, 2006:2).

Although the USEM model does not set the development of employability skills as the end goal of universities, it focuses extensively on universities' role in developing advanced understandings of subject matter with the intention that subject matter understanding evolves

from the active construction of meanings within an industry context. That, in turn, involves instruction, tasks and learning environments that call upon incremental self-theories, self-motivation, reflection and a range of social practices. Graduate employability is therefore nurtured by teaching approaches that take this set of factors into account. Whilst lecturers might reject employability as a curriculum goal, they are much more likely to accept that curriculum processes can improve the employability of graduates (Scales, 2013:1). It is therefore of particular relevance to lecturers who are designing new curricula to accentuate the potential of their programs to develop students' employability (Yorke & Knight, 2006:2).

2.4.2 Bridgstock's conceptual model

Bridgstock's conceptual model (fig 2.3) focuses primarily on the skills that are necessary for developing graduate employability as well as the role of career management. According to Bridgstock (2009:35) this model would ultimately lead to the enhancement of individual and societal wellbeing. It is also suggested that graduates need to master career management skills as part of their studies since it would lead to improved contributions to economic growth by means of enhanced employability, productivity, education- and work efficiencies. In figure 2.3 below the various skills necessary for developing graduate employability according to this model are outlined. These skills include career management (par. 2.4.2.1), self-management skills (par. 2.4.2.2), career building skills (par. 2.4.2.3), discipline specific skills (par. 2.4.2.4), generic skills (par. 2.4.2.5) and the underpinning traits and dispositions (par. 2.4.2.6).

Figure 2.3: Bridgstock's conceptual model

Source: Bridgstock, 2009:36.

2.4.2.1 Career management

Career management refers to creating realistic and personally meaningful career goals, identifying and engaging in strategic work decisions and learning opportunities, recognising work/life balance and appreciating the broader relationships between work, the economy and society. Bridgstock (2009:36) suggests that career management also includes a more direct focus on the processes involved in obtaining and maintaining work. According to this model it is imperative for students to focus on career management during their studies so that they can have a clear concept of their own capabilities and skills which would ultimately increase their opportunities for suitable employment (Bridgstock 2009:62). In accordance Symington (2012:42) states that graduates must utilize their skills for self-management and career building which are based in the underlying traits and dispositions in order to secure and display generic and discipline specific skills in the employment market.

2.4.2.2 Self-management skills

Self-management skills relate to the individual's perception and appraisal of themselves in terms of values, abilities, interests and goals (Bridgstock, 2009:37). Students with an understanding of the value of their career goals, their own abilities and aptitudes, are more likely to find suitable employment than those without this understanding. Students with self-management skills are organised in their personal and work life and realise the value of planning ahead and conceptual thinking.

2.4.2.3 Career building skills

Career building skills refer to those skills which enable individuals to obtain and use information about careers and the labour markets. These skills will lead to more realistic expectations of employment and facilitate the location, securing and maintaining of the work. In accordance career building skills will also enable graduates to exploit career opportunities to progress in the work environment (Symington, 2011:43). A student that is conscious of a high unemployment rate in an occupation or geographical location can use their career building skills to create alternative career situations. These alternatives can involve different locations of work, training options, occupational choices or work modes which enhance proactive career management (Bridgstock, 2009:38).

2.4.2.4 Discipline-specific skills

Discipline-specific skills are the skills traditionally included in university curricula to address specific occupational requirements. These skills originate in specific domains, disciplines or subject matter areas (Bridgstock, 2009:37). For instance, a graduate in statistics should have the skills to apply appropriate statistical techniques to the analysis and interpretation of data. Also, a graduate in business management should possess the ability to apply appropriate business strategies in a business, write reports and solve problems.

2.4.2.5 Generic skills

In Bridgstock's conceptual model generic skills refer to transferable skills, key/core competencies, or actual employability skills. Skills such as information literacy, working with technology, non-verbal and verbal communication, working in teams and numeracy are included as generic skills. In literature there is little consensus on the actual contribution of generic skills to employability (Bridgstock, 2009:37), the reason being the lack in consensus among researchers regarding the importance of generic skills in securing employment and its functioning in the work environment. Another area of dispute is the different meanings attached

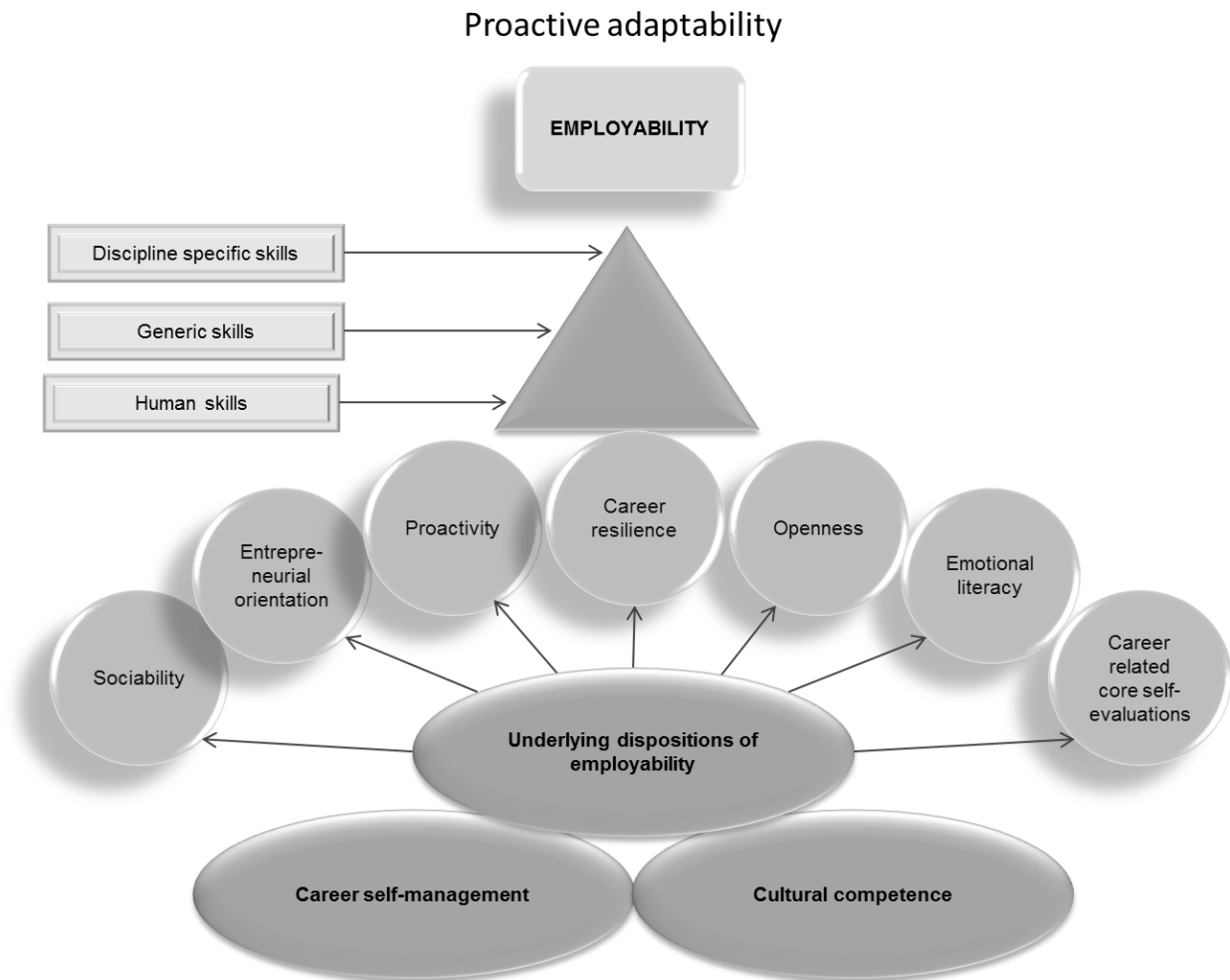
to the various generic skills, the measurement thereof as well as the difficulty in separating the effects of generic skills from other aspects, such as personal and emotional influences which could affect graduate employability (Symington, 2011:44).

2.4.2.6 Underpinning traits and dispositions

Underpinning traits and dispositions are those precursors that underlie the successful development and application of career management skills (Bridgstock, 2009:36). Symington (2011:44) states that such traits and dispositions include openness to experience, sociability, agreeableness, initiative, intrinsic motivation, career self-efficacy, and self-confidence, which lead to higher work-life satisfaction and smoother transition from university to the work environment.

2.4.3 The graduate employability model

This model was created to guide the development of an appropriate measuring instrument for graduate employability (Symington, 2012:50). The graduate employability model (fig. 2.4) emphasises the skills and disposition needed for effective functioning in the work environment as well as the adaptability of graduate students in the work environment. Employability cannot be seen in isolation from the demand that arises from a challenging new work environment (Symington, 2009:45). According to Bezuidenhout (2011:79) employability is “a psycho-social construct representing a combination of attributes (dispositions, values, attitudes and skills) that promote proactive adaptability in changing environments and enhance an individual’s suitability for employment and the likelihood of obtaining career success.” In this model various dimensions influence graduate employability and proactive adaptability. The first of these dimensions are graduates’ ability to manage their own careers (par. 2.4.3.1), their cultural competence (par. 2.4.3.2) and various underlying dispositions for employability (par. 2.4.3.3). These dimensions are the foundation for the development of human capital (par. 2.4.3.4), generic skills (par. 2.4.3.5) as well as discipline specific skills (par. 2.4.3.6) needed to ensure employability and proactive adaptability.

Figure 2.4: The graduate employability model

Source: Bezuidenhout, 2011:80.

2.4.3.1 Career self-management

This dimension refers to a tendency of managing one's career in a proactive manner by continuously collecting career-related information in order to enhance self-knowledge and the external work environment. Career self-management is the creation of one's own opportunities, the setting of goals, as well as the search for new work-related information in order to adapt easier in the work environment (Symington, 2011:46).

2.4.3.2 Cultural competence

This dimension relates to an individual's ability to effectively understand people across different cultural groups and working in cohesion with them. Employers therefore value work experience where graduates are exposed to multi-cultural working environments.

2.4.3.3 Underlying dispositions for employability

The graduate employability mode outlines several personal dispositions which are interlinked to promote adaptability in the work environment. Bezuidenhout (2011:79) argues that the interaction between these dispositions and other attributes might improve employability and career success.

- **Career-related self-evaluations**

This disposition entails a broad, higher-order skill which consists of self-esteem, locus of control, generalized self-efficacy and emotional literacy. Career-related self-evaluations relate to the basic evaluations that employees do of their own abilities in terms of their self-worth within the career context.

- **Emotional literacy**

Emotional literacy is the adaptive use of emotions and relates to the way in which employees are able to recognize, understand and manage emotions in themselves and also in other people.

- **Openness to change**

Openness to change refers to the degree that individuals will look for new opportunities and experiences and their willingness to consider the new ideas. In this context openness also entails the ability of employees to be open to other viewpoints and methods of work.

- **Career resilience**

Career resilience is the ability of employees to be adaptable, flexible, confident and competent despite opposing circumstances they might experience in their career.

- **Proactivity**

This dimension is a personal disposition which refers to employees who engage in active role orientations. This means that they are able, identify opportunities to increase performance and functioning in the workplace and capitalise on these opportunities.

- **Entrepreneurial orientation**

Entrepreneurial orientated employees are motivated to take risks; they have a need for achievement, tolerance for ambiguity, are innovative and creative. These employees are able to increase outputs and profit through the exploitation of new opportunities that arise.

- **Sociability**

Sociability determines whether employees are open to maintain social relationships and establishing new relationships. It is also the ability to utilise formal and informal networks to the advantage of their own careers.

Since employability in terms of securing work and being adaptable within the work environment are not only influenced by graduates' abilities to manage their own careers, their cultural competence and the aforementioned underpinning dispositions for employability (par. 2.4.2.6), it is suggested in the graduate employability model that graduates should also possess human capital skills, generic skills and discipline specific skills.

2.4.3.4 Human capital

Graduates who are human capital skilled are educated, have work experience, specific work related training, and knowledge to function in the work environment. These skills are unique to each work environment and are vital for graduates to advance in their careers (McArdle *et al.*, 2007:250).

2.4.3.5 Generic skills

Employers also seek graduates with generic skills which entail skills such as oral and written communication, problem solving and teamwork. These skills are discussed in-depth in Chapter 3.

2.4.3.6 Discipline specific skills

Discipline specific skills are critical in many technical positions and employers continue to value knowledge in a specific career field. Although knowledge is important, employers do not only make recruitment decisions on subject matter knowledge (Bridgstock, 2009:37). Employers are in most instances recruiting graduates with a combination of specific and generic skills which are supported by the underpinning dispositions (par. 2.4.2.6).

2.4.4 The Bases of Competence Model

The Bases of Competence model highlights the skills and competencies graduates need to succeed in the work environment as well as indicate the manner in which universities can strengthen their curriculums to cultivate these skills in undergraduate students. The Bases of Competence model entails four base competencies and 17 skills which would enable graduates to achieve high performance in the workplace. The four distinct competencies that emerge from this model include managing self, communicating, managing people and tasks and mobilising innovation and change. The 17 skills that are required for graduates to be employable are consistent with literature on skills and are outlined in Table 2.1 (Berdrow & Evers, 2010:421).

Table 2.1: The Bases of Competence Model

Managing self: constantly developing practices and internalising routines for maximising one's ability to deal with the uncertainty of an ever-changing environment
<ul style="list-style-type: none"> • Learning • Personal organisation/Time management • Personal strengths • Problem solving/Analytic
Communicating: interacting effectively with a variety of individuals and groups to facilitate the gathering, integrating and conveying of information in many forms (e.g. verbal, written)
<ul style="list-style-type: none"> • Interpersonal • Listening • Oral communication • Written communication
Managing people and tasks: accomplishing the tasks at hand by planning, organising, coordinating and controlling both resources and people
<ul style="list-style-type: none"> • Coordinating • Decision-making • Leadership/Influence • Managing conflict • Planning and organising
Mobilising innovation and change: conceptualising as well as setting in motion ways of initiating and managing change that involve significant departures from the current mode
<ul style="list-style-type: none"> • Ability to conceptualise • Creativity/Innovation/Change • Risk-taking • Visioning

Source: Berdrow & Evers, 2010:421.

The Bases of Competence Model summarises the joint effort between employers and universities to supply skilled graduates as the restoration of the historic role of universities in preparing graduates for the workplace of the future rather than the past, as well as identifying the needs of the working environment and the manner in which universities can satisfy these needs (Berdrow & Evers, 2010).

Henceforth, the aim of this model is to increase synergy between university graduates and corporate employers (Berdrow & Evers, 2010:420). The foundation of this model rests on three basic arguments which states that assessment of learning outcomes against stated institutional goals is a reality for all accredited institutions of higher education; that professional institutions such as business schools must adequately prepare students for effective career performance; and that career performance depends on effective application of requisite knowledge and skills (Berdrow & Evers, 2010:419). Moreover, this model states that educational systems and learning tools are needed for the development of graduates' skills and competencies. Universities therefore need to structure programs to develop graduates' skills and competencies and not only structure educational programs to develop general education and degree-specific knowledge (Berdrow & Evers, 2010:432).

The Bases of Competence model therefore provides a common language for universities and employers. It provides a framework for assessing the supply and demand gap between graduate abilities and employment needs. This model is unique in that it concentrates on generic skills needed by higher education graduates as a base for supporting their specialist knowledge and skills (Berdrow & Evers, 2010:420).

2.5 A GLOBAL PERSPECTIVE ON GRADUATE EMPLOYABILITY

Various businesses worldwide experience challenges and increased competition in the development of skills to ensure a competent workforce. Global competition and rapid technology changes not only emphasis the optimal utilisations of skilled graduates, but have also been the driving forces to ensure flexible and competent workforces (Papalexandris & Nikandrou, 2000).

Most countries worldwide experience problems with ill-skilled graduates entering the labour market and are unable to perform effectively in the workplace. In the United States of America the skills shortage of newly appointed graduates stem from poor academic and occupational skills. In Britain, employers reported that despite the yearly increase in applicants, they found disappointingly thin pickings; especially graduates with skills pertaining to commercial awareness and thinking skills such as problem solving (Black, 2010). In a study in Malaysia involving 312 companies, it was found that 77.6% of the participants were of the view that

graduates lack the required skills to function effectively in the workplace (Yen, 2010). From these findings the Malaysian government sponsored a program called the Graduate Career Accelerated Programme (GCAP) which offers training programs to develop the skills of graduates before they enter the work environment. In Germany the challenges of ill-skilled graduates already emerged in the 1990s. It was discovered that graduates lacked soft skills, core competencies, key competencies and transferable skills to perform effectively in work environment. Germany addressed this challenge with the implementation of the Dual System which focuses on the effective school/university to work transition with the development of the skills and aptitudes needed to be effective in the workplace (Gibbons-Wood & Lange, 2000).

The Australian Government also realizes that graduates experience difficulty with the transition from school to further education and then especially to the work environment. In order to manage this concern, Australia invested \$124.5 million in 2012 to accelerate progress in education and skills development (Government, 2012). This investment is aimed at developing the literacy and numeracy skills needed to function in the work environment already at primary school level. In addition the Australian government also resides a high priority on improving the quality of the labor force through the development of employability skills such as communication, teamwork, problem solving, initiative and enterprise, planning and organization, self-management, learning and technology. In order to develop and improve the workforce, the government offers technical and vocational training and higher education support (Kahn *et al.*, 2012).

In South Africa employers are not particularly positive about graduates' readiness for work since they struggle to integrate data and are not able to apply the complex problem-solving skills that are required in the work environment (John, 2012). There is no doubt that the lack of a variety of employability skills is one of the most difficult issues organisations have to deal with (Lowden *et al.*, 2011). In an attempt to confine the lack of skilled employees in South Africa various agencies are aimed at improving the skills of the South African workforce (Mummenthey, 2010):

- The Department of Labour (DOL) and Department of Education (DOE): The DOL and DOE are the main overseeing and driving departments in terms of training and education in South Africa. The DOL is responsible for training and all labor market-related initiatives. The DOE is responsible curriculum development and quality assurance in the formal education sector and the Further Education and Training (FET) Colleges.
- South African Qualifications Authority (SAQA): SAQA is the central quality authority to all education and training in South Africa. SAQA was established by the South African Qualifications Authority Act No. 58 of 1995 (RSA, 1995). SAQA's primary mandate is to

assure high quality education and training by overseeing the successful development and implementation of the National Qualifications Framework. Due to its dual role as a quality assurance body for education and training, it is accountable to both the Department of Labour and the Department of Education.

- Education and Training Quality Assurance (ETQA): The ETQA is the mandate to ensure the quality of learning which are approved and accredited by the SAQA for a particular sector (i.e. economic sector, educational institutions and bodies, social sector).
- Sector Education and Training Authority (SETA): SETA is governed by the guidelines of the Skills Development Act and the Skills Development Levies Act No. 9 of 1999 (RSA, 1999). It is responsible for establishing and ensuring quality in workplace-based training and learning. Overall 23 SETA's have been constituted, which are responsible for overseeing the training and skills development in specific national economic sectors, and to develop Sector Skills Plans (SSP). The SSP's main purpose is the outlining of the specific strengths and challenges of a sector related to employment and skills development.
- National Skills Authority (NSA): The NSA is a stakeholder body which advises the DOL on the National Skills Development policy and strategy and its implementation. Allocations occur from the National Skills Fund (NSF) and it is responsible for the approval of SETAs' Sector Skills Plans.
- National Skills Fund (NSF): The NSF finances all SETA training and is based on a levy-based scheme, regulated in the Skills Development Levies Act 9 of 1999 (RSA, 1999). The amount of the levy is 1% of the total employee payroll. The levy collected allocates 20% to the National Skills Fund (NSF) under the financial supervision of the National Skills Authority (NSA) and pays the remaining 80% to all existing SETA's.

Although all of these aforementioned agencies have different mandates they all contribute to skills development. These agencies are responsible for directing the national skills development strategies which are implemented in South Africa by means of frameworks, initiatives and objectives for skills development. These strategies include the Human Resource Development (HRD) Strategy, the National Skills Development Strategy II (NSDS II), the Accelerated and Shared Growth Initiative for South Africa (ASGISA) and the Joint Initiative on Priority Skills Acquisition (JIPSA) (Mummenthey, 2010).

2.5.1 Human Resource Development (HRD) Strategy

The HRD strategy provides a framework for the government's approach towards skills development and its overall vision "... a nation at work for a better life for all." This strategy assists employees in developing a range of personal and organisational skills, knowledge, and competencies which includes opportunities such as employee training, employee career development, performance management and development, coaching, mentoring, succession planning, key employee identification, tuition assistance, and organisation development.

2.5.2 National Skills Development Strategy II (NSDS II)

This strategy was introduced and monitored by the Department of Labour (DOL) under advice from the National Skills Authority (NSA). The National Skills Development Strategy (NSDS) contributes to sustainable development of skills growth, development and equity of skills development institutions by aligning their work and resources to the skills needs for effective delivery and implementation.

The NSDS have the following objectives:

- Prioritizing and communicating critical skills for sustainable growth, development and equity,
- Promoting and accelerating quality training for all in the workplace,
- Promoting employability and sustainable livelihoods through skills development,
- Assisting designated groups, including new entrants to participate in accredited work, integrated learning and work-based programs to acquire critical skills to enter the labor market and self-employment,
- Improving the quality and relevance of provision (Mdladlana, 2005:1-16).

2.5.3 Accelerated and Shared Growth Initiative for South Africa (ASGISA)

ASGISA was launched to promote the governments mandate from 2004 firstly by decreasing unemployment (from 30% to 15%) and poverty (from one-third to one-sixth of the population) by 2014 and secondly to accelerate employment equity. ASGISA developed six categories in which they would place their focus:

- Macroeconomic issues;
- Infrastructure programs;

- Sector investment strategies (or industrial strategies);
- Skills and education initiatives,
- Second economy interventions; and
- Public administration issues.

2.5.4 Joint Initiative on Priority Skills Acquisition (JIPSA)

JIPSA relates to the objectives and constraints envisioned in terms of skills by ASGISA in March 2006. Its primary mandate is to lead and support the implementation of ASGISA and its objectives through the alignment of education and training with identified skills priorities. JIPSA has the responsibility to identify urgent skills needs in the work environment and develop fast and effective solutions. Solutions include special training programs, bringing back retirees or South Africans and Africans working abroad, drawing in new immigrants where necessary, mentoring and overseeing placement of trainees to fast track their development (Mlambo-Ngcuka, 2006:7).

Despite the attempt of the South Africa based agencies and strategies aimed at the development of skills, employers have a growing concern regarding the skill levels of graduates (Sims, 2012). The development of skilled graduates therefore falls to a large extent on universities who are seen as being ultimately responsible for creating an educated and skilled workforce in South Africa.

2.6 SUMMARY

This chapter focused on the development of the employability research theory by focusing on different theories and models of employability. Furthermore, the importance of quality skills on an international and national level has been explained and the South African perspective has been discussed. The skills development initiatives are necessary to reduce the unemployment rate and to have an improved skilled workforce. All aspects considered, it is clear that wide range skills are deemed important in businesses, which will be discussed in Chapter 3.

CHAPTER 3: EMPLOYABILITY SKILLS

3.1 INTRODUCTION

In the previous chapter the international and national growing interest in graduate employability were highlighted. Despite the concerns regarding graduates employability skills levels, Wilson (2001) is of the opinion that graduates are quick to learn, open to new ideas, enthusiastic, energetic and knowledgeable about new technology and will therefore demonstrate employability skills if they are educated towards mastering these skills. Since graduates are the labour market of the future, they should possess a variety of skills in order to be employable and contribute to the work environment (Weligamage, 2009:1). The ability of a graduate to perform a variety of skills can be termed a graduate's personal brand, which include a unique and timely package of skills and capabilities which are of real value to a potential employer (Schermerhorn, 2007:7).

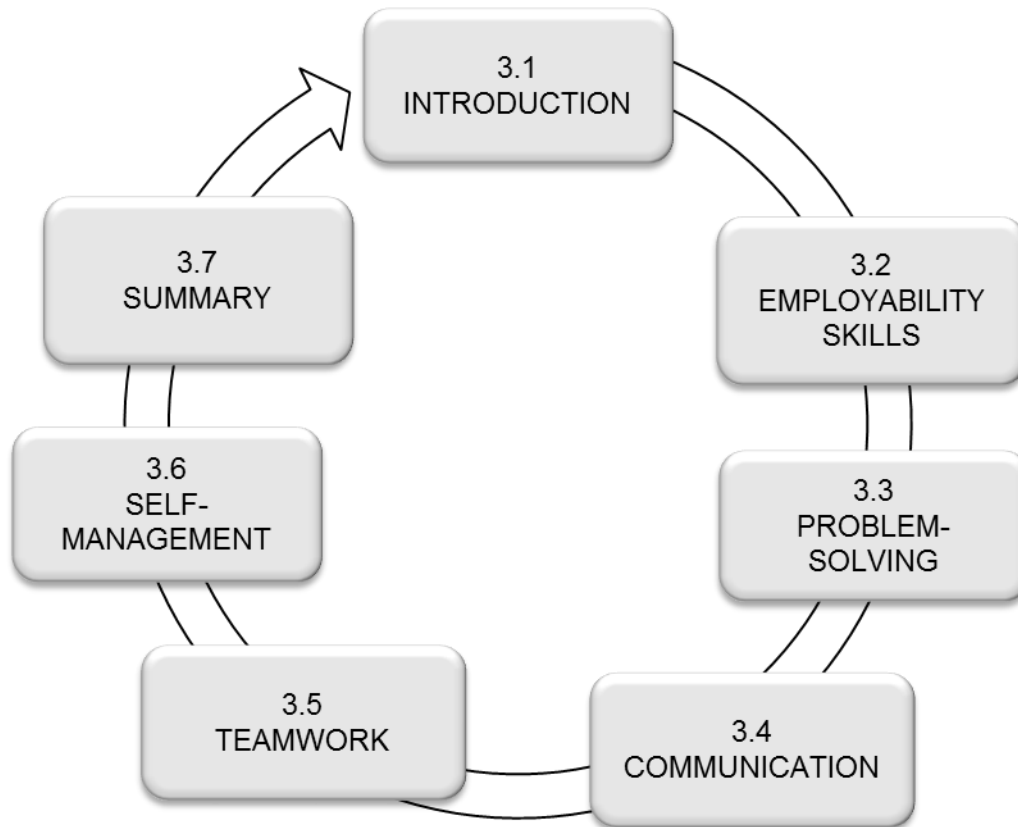
Although universities claim to focus their teaching and learning effort on the development of employability skills, various studies show that employers are not satisfied with the level of skills graduates bring to the work environment. With more than 100 000 students that graduate from tertiary institutions every year in South Africa, only 16% of graduates receive a job after graduating and 34% of graduates are willing to take the first job they are offered (Altbeker & Strome, 2013:8; Adams, 2013:1-2). In recent years South Africa's capacity to absorb new work ready individuals into the formal labour market has decreased significantly. This decrease results in graduates being compelled to ensure their employability by distinguishing them from other job seekers in terms of academic knowledge and employability skills (De Jager, 2005:59). According to Bird (2000:21), people with fewer skills were already in abundant supply more than a decade ago.

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 work environment, 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. The knowledge and skills of employees are the driving forces of economic growth and social development for any country and employees with higher and better levels of skills adjust more effectively to the challenges and opportunities in the business environment (Government, 2012:1). Challenges and opportunities include global competition

and rapid technology changes which demand a flexible and competent workforce for any business (Papalexandris & Nikandrou, 2000:391-402).

Although the conflict theory of graduate employability (par. 2.3.2) gained momentum in recent years, some employers are still of the opinion that it is the responsibility of universities to provide opportunities for the development of graduates' employability skills. However, even employers that support the conflict theory suggest that universities need to enhance employability skills through teaching and learning initiatives which should be built into university curriculums (Fallows & Steven, 2000:78). According to Selvadurai *et al.* (2012:295-303) there are mainly two reasons why universities fail to produce business skilled graduates. They argue that universities focus too much on the knowledge of academic subjects which is seen as inadequate in the current economic situation and the skills which are learned will not necessarily ensure greater opportunities for employability. Although many universities' mission statements clearly stipulate a focus on the development of employability skills, clearly defined strategies for the development of skills are not included in curriculums (Selvadurai *et al.*, 2012:295-303). In addition many universities are also unfamiliar with the skills they need to focus on in ensuring the delivery of employable graduates.

In this chapter the discussion will commence with an in-depth discussion of the employability skills necessary in the work environment. It will be followed by a differentiation between employability and skills as two separate concepts. Employability skills based on employers' and students' expectations will further be discussed. Thereafter, problem solving, communication, teamwork and self-management will be subsequently discussed.

Figure 3.1: Chapter 3 abbreviated synopsis

3.2 EMPLOYABILITY SKILLS

Employability skills are those skills employers deem necessary for the successful functioning of newly appointed graduates in the work environment. Definitions of employability skills range from vague notions of preparing for a first job to very precise lists of specific skills students need to master (Martin *et al.*, 2008:1-3). In addition, employability skills refer to a graduate's knowledge about the business' objectives and the way in which individuals perform in the businesses. According to Yorke and Knight (2006:1-32) employability skills are "a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy." Martin *et al.* (2008:8) states that graduates need to develop their personal skills and a set of thinking and learning skills. These skills are fundamental for improving graduates' employability as well as their learning.

According to Lees (2002:1) it is not possible to fully grasp the concept and context of employability skills without a focus on the meaning of the concepts employability and the skills needed by graduates to perform effectively in the work environment.

3.2.1 Employability

Historically employability research only considered individuals seeking a job (the demand side) and labor market opportunities (the supply side) (par. 2.2). However, employability apprehends not only an individual's ability and readiness to move into employment, but also the employer's attitudes toward the skills of individuals and external factors such as the availability of suitable work opportunities and their ability function in the work environment (McQuaid, 2004:2). Hillage and Pollard (1998:1) expand on this description of employability and argue that employability is more than the capability to gain initial employment and maintaining employment. They also state that employability for the individual depends on assets in terms of knowledge, skills and attitudes, the way these assets are used and deployed, the presentation of assets to potential employers and the context within which the individual works namely the labour market or personal circumstances.

Currently, employability revolves more around skills and attitudes of individuals (the supply side). Mason *et al.*, 2003:1 reported that the concept of employability centres on the individual's development of communication, numeracy, information technology, and learning how to learn. Employability is the propensity of graduates to secure a job and progress in their career, it is not just about getting a job, it is about developing attributes, techniques and life experience (Tran, 2013:7).

3.2.2 Skilled graduates

Skills on the other hand are more challenging to describe since there is no consensus among researchers about the skills needed by newly appointed graduates. The concept of skills are also varied, since some studies refer to key skills, core skills or life skills, while others refer to generic skills, essential skills, transferable skills, necessary skills and key competencies. Although there are different concepts of skills being used in literature, businesses are faced with a skills shortage, which includes the need to increase productivity, the need to improve performance and service delivery, the need to develop the knowledge of affirmative action candidates and the need to increase diversity in the work place (Folscher, 2003:18-20). The skills challenge raises attention to the skills needed in the work environment, for the reason that any business is only as good as the workforce behind it. Employers seek individuals with a variety of skills in order to create or maintain an efficient, professional and productive work environment.

Smits (2001:15) distinguish between skills as being specific or generic in nature. Specific skills refer to those skills graduates need in a specific job such as the skills an accountant requires to

function effectively as an accountant. These skills include management of financial resources, mathematics, systems analysis and perceptual speed. Generally speaking, specific skills could also be termed hard skills. Hard skills likewise present the specific knowledge and abilities required for success in a job. Generic skills refer to the skills which are not applicable to a specific job performance. These skills can be applied across all industries, business sizes and work levels and includes skills such as problem-solving, teamwork, communication and leadership (Lowden *et al.*, 2011). As an illustration, in the information technology industry, Hewlett-Packard Australia, hires graduates from a range of disciplines, apart from computer science, they select those that are flexible, adaptive and capable of learning on the job because of the need to develop such contextual attributes as business awareness and customer focus (Lowden *et al.*, 2011). University graduates should therefore be knowledgeable about business theory and more so be able to apply their knowledge in the work environment.

Apart from the previous distinction between specific and generic skills, Raybould and Sheedy (2005:295-263) argue that graduates also need to develop certain soft skills which are mostly obtained through studies and periods of work, rather than degree-specific knowledge. Although they do not refer to specific and generic skills, their idea of soft skills relate to a large extent to generic skills which include a strong work ethic, a positive attitude, communication skills, self-confidence, the ability to work in teams and problem-solving skills. Lester (2013:1) also promotes the importance of soft skills, and elaborate on the list of skills developed by Raybould and Sheedy (2005:295-263) by including logical thinking, quick learning, flexibility, ambition, high levels of motivation, creativity, critical thinking, initiative, and time management to his list of soft skills needed by newly appointed graduates (Lester, 2013:1).

3.2.3 Employability skills

Employability skills are those basic skills necessary for getting, keeping, and doing well in the work environment (Robinson, 2000:1). According to York (2006:3) it is not possible to group all the employability skills graduates should have mastered in one single list, since the nature of the business as well as the business environment depict the skills needed by graduates to perform successfully in the business. Hinchliffe (2006:100) equally criticizes the list of skills graduates should have, by arguing that employers place unrealistic demands on graduates, "It is unrealistic to expect young men and women in their early twenties to already possess all the skills needed to perform effectively in the business world". Smith and Comyn (2003:10) furthermore agree that employability skills are developed throughout a person's working life.

On the contrary, Robinson (2000:3) argue that although it is not possible to group all employability skills in one single list, some skills are common in all businesses and include basic

academic skills, high-order thinking skills and personal qualities. Basic academic skills enable newly appointed graduates to contribute to the business' success in terms of their reading, writing, oral communication and listening abilities. Higher-order thinking skills are seen by many researchers as the most important skills newly appointed graduates should have mastered at universities. These skills include the ability to solve problems, reason, take initiative and make sound decisions. Robinson (2000:3) also identify some personal qualities businesses need from newly appointed graduates which include self-confidence, self-control, social skills, the ability to take responsibility and working in teams. According to Parsley (2012:35) an employee's personal qualities are the first skills employers identify as being mastered or lacking, since these qualities are already measurable during the employment interviews. In addition to the skills identified by Robinson (2000:3), eight employability skills are desirable in the work environment. The eight skills include communication, teamwork, problem-solving, self-management, planning and organizing, technology, life-long learning, and initiative and enterprise (DEST, 2002).

All aspects considered, there are numerous viewpoints that influence the definition of employability skills (Martin *et al.*, 2008:8). In order to clearly identify and define employability skills applicable to this study it is necessary to make a distinction between specific employers' expectations and students' expectations of the employability skills needed to function effectively in the work environment.

3.2.3.1 Employability skills: Employer expectations

Since the cost of graduate recruitment is increasing every year, which equally increases the expectations of employers regarding skilled graduates, universities are pressured to produce better skilled graduates. Literature suggests that employers of graduates place major emphasis on graduates' general attitude, communication skills (verbal and written), work ethic, teamwork skills and analytical skills. According to Martin *et al.* (2008:8) employers expect graduates to have a wide variety of skills especially a set of soft skills such as literacy, numeracy, enthusiasm and commitment.

While most employers recognize the importance of graduates' literacy, numeracy, enthusiasm and commitment, they equally put emphasis on a graduate's ability and willingness to learn. Fallows and Steven (2000:75-83) also states that employers would rather appoint graduates who do not only possess specific skills and knowledge, but also the ability to be proactive and respond to problems creatively and autonomously. Therefore a traditional undergraduate degree with a focus on cognition and a narrow theoretical framework may consequently not be efficient in order to produce the well-rounded, multi-skilled, flexible and adaptable graduates demanded by businesses (Hodges & Burchell, 2003:18).

Although it might seem that employers have high expectations for graduates, employers do not expect candidates to be completely competent for the work environment (Telugu, 2013:5). Likewise, employers do not expect these candidates to have fully developed the employability skills that could be described as specific to the work environment (Martin *et al.*, 2008:8). The candidates are expected to be able to learn, adapt in the work environment and develop their skills as needed for their specific work, hence supporting the Conflict Theory to graduate employability (par. 2.3.2).

3.2.3.2 Employability skills: Student Expectations

Students have basically four expectations when entering the working environment which include good salaries, in-job training, permanent employment and the application of the knowledge and skills they mastered at higher education institutions. According to Nel and Barnard (2009:7) students' expectations differ from being unrealistic in terms of salary expectations to being realistic in terms of in-job training, employment security and knowledge and skills. Since no research regarding student expectation exist in the South African context, international research will be drawn upon in this regard.

In terms of salaries the average salary for graduates varies extensively from being high and low. Graduates expect to earn relatively high salaries when entering the work environment. In the United Kingdom (UK), the average starting salary of graduates across all disciplines in 2013 were £20,000, which is less than half executives earn (Murphy & Gawthorpe, 2013:1). If a graduate expects to be earning high salaries from day one, the reality offered by many employers may be a disappointment. From an employer's perspective, graduates need additional training and development at a cost, even though graduates have a degree in a specific field of study (Murphy & Gawthorpe, 2013:1).

In terms of in-job training, the *College Graduate Employment Survey* (2013:3) conducted a study among 1 010 students in the United States. The study identified a gap between the expectations of graduates in terms of employer-provided training and the reality when they start working in the business. According to this study 77 percent of students that graduated in 2013 expected formal training from their first employer, but only 48 percent of 2011/2012 graduates stated that they actually received training in their first job after graduation. As a result, in-depth training programs and apprenticeships are some of the tools that add value to industry involvement and the ability to have a real world experience. At the same time, another report released by Accenture (2013), reflected that formerly in-depth training programs and apprenticeships are dubious to reoccur. It is vital for businesses to not only focus on the inability to find graduates with the skills required in the work environment, but businesses should rather

be innovative and develop new and comprehensive enterprise learning strategies. Büning and Williams (2010:1) promote learning chains as a requirement, where informal and formal training are used as learning strategies. These include strategies such as gaming and simulations that imitates the actual workforce environment and thus allows graduates to apply knowledge and skills in a fail-proof environment.

In terms of employment security, graduates tend to value extra-curricular experiences at universities and work experience more highly than the content of their degrees, seeing these as adding to their Curriculum Vitae's and assisting them in securing employment (Lowden *et al.*, 2011:14). Song (2013:1) recognized that a weak growth in the economy and a high supply of graduates often result in graduates inability to secure employment. As an illustration, college graduates in China faced an intimidating reality when they entered the job market in 2013. Shanghai's graduates showed a 44.4 percent employment rate and only 28.24 percent of Beijing's 2013 graduates had found jobs in mid-April (Song, 2013:1).

In terms of the knowledge and skills graduates mastered at higher education institutions, there is also a gap between the expectations of graduates and the offering of employers. More than 40 percent of the 2011/2012 graduates in the United States of America received employment which did not require university degrees. These graduates are of the opinion that they are underemployed, since their full potential are neglected (Accenture, 2013:3). In contrast, Hodges and Burchells (2003:19) stated that graduates expect too much too quickly and become dissatisfied and negative when they do not advance in the work environment. New graduates often believe they have a good grasp of the working environment, but they often lack real-life experience such as handling conflict, contributing to business goals and solving problems. Even though Hodges and Burchells state that graduates often lack real-life experience, Crebert *et al.* (2004:15) is of the opinion that graduates feel strongly that industry involvement in their undergraduate curriculum will be advantageous. Graduates propose a stronger link between the curriculum content and the business environment in order to develop generic skills at universities. The skills and knowledge that graduates learned at universities should therefore be applied in a practical environment.

From the discussion thus far it is evident that a need for skilled graduates exist and that numerous skills are depicted as necessary to function effectively as new appointees in the work environment. Summarized by the DEST report (2002), the most important skills needed by graduates to perform effectively in the working environment, are communication, teamwork, problem-solving, self-management, planning and organizing, technology, life-long learning, and initiative and enterprise. These skills not only provide greater chances for initial employment, but will also enable graduates to progress within a business, achieve their own potential and enable

them to contribute successfully to business strategic directions. Although these skills form the basis of the expectancy by employers, Crawford *et al.*, 2011 is of the opinion that graduates' ability to solve problems, have communication skills, work in teams, and possess self-management skills are higher in demand in the work environment. Since most university curriculums focus on these skills in an effort to produce well-rounded and employable graduates, these four skills (par. 3.3-3.6) will form the basis of this study and will consequently be discussed in further detail.

3.3 PROBLEM-SOLVING

According to Whetten and Cameron (2011:196) problem-solving is a skill that is required not only from newly appointed graduates, but every individual in almost every aspect of life. Problem-solving arises from a problem that occurs in a specific situation that needs to be resolved to establish equilibrium. In preparing students to be effective problem solvers, universities and especially the lecturers responsible for teaching need to understand the significance of problem-solving in a business context and develop learning opportunities where this skill can be mastered (Daft *et al.*, 2010:323). In the business environment a problem occurs when organisational accomplishment is less than established goals (Daft *et al.*, 2010:323). Paton (2011:197) furthermore states that a problem is a gap between an existing and desired state of affairs, a deviation from a norm, standard, or status quo.

In essence, problem-solving is the process followed when solving a problem, thereby taking corrective action to meet objectives and achieve desired results (Daft and Marcic, 2014:15). In order for individuals to effectively solve problems, they need to be able to think critically and judge situations in a reflective manner (Facione, 2000:61).

3.3.1 Types and styles of problem-solving

Kirkley (2003:8) distinguishes between three types of problems and refer to them as well structured, moderately structured and ill structured problems. These types of problems play a significant role in the problem-solving style and the problem-solving process.

- Well-structured problems. These are defined as problems that always use the same step-by-step solution and the solution strategy is usually predictable. This type of problem has all the information as part of the problem statement, such as balancing a check book and following the steps used in business practices such as completing an order form.
- Moderately structured problems. These are problems that require different strategies and adaptations to fit into a particular known context. Relevant information must be gathered to

solve these problems, such as designing a spreadsheet, planning a sales call, a presentation or a report.

- Ill structured problems. These are problems with vague with unclear goals. In this instance the solution is not well defined or predictable and extensive information need to be gathered to solve these problems, such as creating a new computer program or planning for the development of a new product.

Given the complexity inherent in most problems, graduate employees should be able to not only demonstrate their ability to identify, prioritize and solve problems, but also the ability to ask the right questions, sort out the many facets of a problem and determine possible solutions (Susima, Samudrika & Weligamage, 2009). The manner in which problems are solved depends to a great extent on the problem-solving style of an individual. Daft, Kendrick and Vershinina (2010:542) identify four problem-solving styles which they depict as sensation thinking, intuitive thinking, sensation feeling and intuitive feeling (Fig.3.2).

Table 3.1: Four problem-solving styles.

Personal style:	Action tendencies:	Likely occupations:
Sensation thinking	<ul style="list-style-type: none"> • Emphasizes details, facts, certainty • Is a decisive, applied thinker • Focus on short-term, realistic goals • Develops rules and regulations for judging performance 	<ul style="list-style-type: none"> • Accounting • Production • Computer programming • Market research • Engineering
Intuitive thinking	<ul style="list-style-type: none"> • Prefers dealing with theoretical or technical problems • Is a creative, progressive, perceptive thinker • Focuses on possibilities using impersonal analysis • Is able to consider a number of problems and option simultaneously 	<ul style="list-style-type: none"> • Systems design • Systems analysis • Law • Middle/top management • Teaching business, economics
Sensation feeling	<ul style="list-style-type: none"> • Shows concern for current, real-life human problems • Is pragmatic, analytical, methodical and conscientious • Emphasizes detailed facts about people rather than tasks • Focuses on structuring organizations for the benefit of people 	<ul style="list-style-type: none"> • Directing supervisor • Counseling • Negotiating • Selling • Interviewing

Personal style:	Action tendencies:	Likely occupations:
Intuitive feeling	<ul style="list-style-type: none"> • Avoid specifics • Is charismatic, participative, people oriented and helpful • Focuses on general views, broad themes and feelings • Decentralizes decision making, develops few rules and regulations 	<ul style="list-style-type: none"> • Public relations • Advertising • Human resources • Politics • Customer service

Source: Daft *et al.*, 2010:542.

According to Daft *et al.*, (2010:542) one problem-solving style is not better than the other and they all have different tendencies in the work environment. The different problem-solving styles are also used in specific occupations and are prone for different environment. Although there are different problem-solving styles, the process in which problems are solved are the same in all situations.

3.3.2 Problem-solving process

Despite a distinction being made between the different types of problems as well as the problem-solving styles, Baldwin *et al.* (2008:93) and Whetten & Cameron (2011:197) correspondingly agree that in all instances the problems need to be solved in a planned and constructive manner. They distinguish between five steps employees and managers should use to solve problems, which they depict as the problem-solving process.

- Step 1: Define and structure the problem. This involves the diagnosis of a situation in order to focus on the real problem, not just the symptoms or consequences. According to Crebert *et al.* (2011:11) a focused problem statement is needed for a proper research on the problem.
- Step 2: Generate alternative solutions. According to Baldwin *et al.* (2008:102) multiple solutions to problems mostly results in higher quality solutions. It is accordingly imperative to not evaluate problems as they are proposed, but rather when all alternatives are given (Whetten & Cameron, 2011:198). This will ensure that the best alternative is chosen and not the first acceptable alternative.
- Step 3: Evaluate and select an alternative. In this step, the advantages and disadvantages are weighed of all the proposed alternatives. It is important to select the alternative which will solve the problem in the best manner without causing other unexpected problems.

- Step 4: Implementing the solution. The solution might have an influence on the business due to possible resistance from individuals. The solution must therefore be implemented based on a strategy that maximizes the probability that the solution will be accepted and implemented. If the solution does not completely address the problem, the previous steps can be repeated to address areas of concern or that need improvement.
- Step 5: Learn and seek feedback. This final step will improve future problem-solving and will improve the chances of repeating mistakes.

During the problem-solving process graduates should be aware of the ethics involved in problem-solving. Baldwin *et al.* (2008:113) state that it is imperative for every graduate to strive towards ethical decisions and behavior, which can be termed ethical commitment. Ethical commitment is the level of dedication or desire to do the right thing, even if it might lead to personal consequences. Solving problems ethically equally requires an ethical consciousness, which involves the ability to understand the implications of choosing less ethical courses of action. In accordance, ethics as a competency should be recognized. Ethical competency is where every stage in the problem-solving model are considered with an ethical background.

3.3.3 Developing problem-solving skills

Employers expect graduates to have good problem-solving skills and if graduates are good problem solvers, employers are more prone to appoint graduates. Employers seek employees who will take the personal responsibility to make sure targets are met, who can see that there might be a better strategy or process, who are prepared to research and implement change, and ultimately individuals with the determination to solve problems (Brewer, 2013:9).

According to the level descriptors of the South African National Qualifications Framework depicted by SAQA (2010:4-7), undergraduates need to demonstrate problem-solving skills on different complexity levels as they progress from their first year to their final year (third year) of study (table 3.1). South African universities therefore need to ensure that specific strategies and policies are developed to ensure that these skills are focus on in curriculums and learning environments.

Table 3.2: Problem-solving level descriptors

Level 5: First year level	Level 6: Second year level	Level 7: Third year level (Final year)
Students should be able to identify, evaluate and solve defined, routine and new problems within a familiar context, and apply solutions based on relevant evidence and procedures or other forms of explanation appropriate to the discipline.	Students should be able to identify, evaluate and solve problems in unfamiliar context, gather evidence and apply solutions based on evidence and procedures appropriate to the discipline.	Graduates should be able to identify, analyse, critically reflect on and address complex problems, apply evidence-based solutions and theory-driven arguments.

SAQA (2010: 4-7)

From the information in table 3.1 it is evident that specific descriptors exist for higher education institutions to enable students to develop effectively as problem solvers who are equipped to function effectively in the working environment. These descriptors indicate that students' problem-solving skills need to progress from solving routine problems in familiar contexts in their first year of study and unfamiliar contexts in their second year of study to solving complex problems as graduates.

3.4 COMMUNICATION

Communication is the process by which information is exchanged and understood by two or more people, usually with the intent to influence or motivate behavior (Daft & Marcic, 2010:647). De Janasz *et al.* (2009:127, 143) and Paton (2011:485) state that communication is a process of exchanging thought, messages or information from one person to another through written or spoken words, symbols and actions with the objective of common understanding. In addition, managers and employees use two methods of communication which include one-way communication and two-way communication. One-way communication is information flowing only in one direction either from the managers to the employees, such as policy information, regulation or from the employees to the managers, such as feedback or progress reports. Two-way communication is information flowing in two directions between managers and employees, such as meetings where decisions need to be made and training sessions (Bateman & Snell, 2013:532-533).

Well-honed communication skills is significant for graduates, given the fast pace and complexities of recent times (ITRISA, 2013:88). The importance of communication as a skill stems from communication which is divided into different message channels. A communication

channel is the medium or carrier of communication between a sender and a receiver (Paton 2011:491). Communication channels for verbal communication mainly include all written and oral communication, and nonverbal communication includes gestures, attitudes or expressions (Lussier, 2012:367; Griffin, 2012:351).

3.4.1 Communication channels

Verbal communication involves the use of language, the relationship between language and meaning with the emphasis on denotation, connotation, cultural and gender differences and the skills that help individuals to speak and write clearly and appropriately (Verderber & Verderber, 2002:52). Verbal communication is used when individuals engage in discussion, either orally or in written format, and come to a consensus with others, or when individuals are trying to communicate an explanation as well as an emotion (De Jansz *et al.*, 2009:133). Verbal communication channel in the business environment usually involves face-to-face conversations, group discussions and telephone calls, meetings, presentations, voice mail messages, letters, memorandums and emails (Griffin, 2012:350; Lussier, 2012:367). According to Bateman and Snell (2013:536) electronic communication is receiving a lot of interest by businesses, employers and employees in the 21st century. Electronic communication enables business to communicate with their stakeholders and clients nationally and internationally with the use of e-mails, instant messaging, teleconferencing, cell phones, voicemail and websites (De Janasz *et al.*, 2009:134).

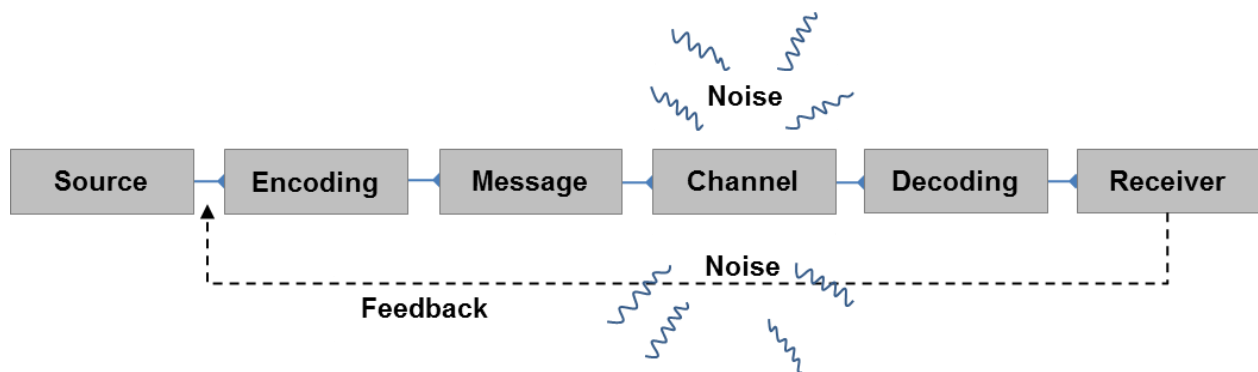
According to Daft *et al.* (2010:652) nonverbal communication is communication transmitted through actions and behaviors rather than through words. ITRISA (2013:10) view nonverbal communication as tone of voice, inflection of words, loudness of voice, facial expressions, body movements, style of dress and the use of personal space. In business, nonverbal communication is already evident during interviews in terms of facial expressions, dress, gestures and posture.

Hellgriegel *et al.* (2008:24) furthermore state that communication transcend through communicating effectively in the expected context or situation. Communication could transpire in an informal and formal manner. Informal communication is being sensitive to the different backgrounds and perspectives of people involved, such as the productive employment of workers of different ages, varying work types and expertise, different genders and backgrounds. Formal communication such as newsletters is often used to inform individuals of relevant events and activities to update the status of ongoing projects (Hellgriegel *et al.*, 2008:25). Although communication could transpire in different ways, the communication process is mostly standard.

3.4.2 Communication process

The basic communication process (fig 3.3) consists of the sender who encoding a message which is received by a receiver who decodes the message and who provides feedback (Cassidy & Kreitner, 2011:203). Griffon (2012:350) and Williams (2012:446) also include the transmission of communication channels and meaning between decoding and encoding as part of the communication process.

Figure 3.2: Communication Process diagram



Source: Arens, Weigold, Arens, 2009.

The sender of a message is responsible for encoding the message according his/her perceptions, experience and abilities, and is also responsible for determining the communication channel which will be used to convey the message (De Janasz *et al.*, 2009:132). When the receiver receives the message and decodes it into a format that has meaning, feedback is usually the next step in the communication process. Daft *et al.* (2010:648) defines feedback as the response by the receiver to the sender's message. In most of the instances the meaning of the message produces a response and the cycle continues when a new message is send through the same steps to the original sender (Griffon, 2012:349). De Janasz *et al.* (2009:132) states that during the feedback process the receiver might return the message to seek clarification and confirm the senders intended in order to understand the message and avoid misinterpretation.

In the communication process Daft *et al.* (2010:648) raises attention to potential sources for communication errors which include the encoding and decoding of the message. Knowledge, background and attitudes act as filters and create barriers when translating the meaning of the message. Barriers can also be termed noise which is defined as any distortion factor that blocks, disrupts or distorts the message sent to the receiver and interferes with the effectiveness of the communication process. According to Williams (2012:447) noise can be

created through an unsure message from the sender, unclear encoded message, wrong communication channel, unclear decoded message or inexperience of the receiver to understand the message. Other barriers to communication include information overload, trust and credibility, filtering and emotions (De Janasz *et al.*, 2009:136-137). Information overload is when the amount of information an individual receives exceeds the individual's capacity to absorb it. Trust and credibility on the other hand, equally effect communication negatively for example if a business begins to dismiss employees after having told them that dismissals will not occur, those employees will be less likely to believe their managers in future. Another barrier, filtering, is the intentional manipulation of information to make the information more favorable to the receiver for example when an employee informs a manager of errors that occurred, but the employee refrains from giving all the information to make the damage less extensive. Hence, filtering makes objective decision making difficult, because the true message is unknown (De Janasz *et al.*, 2009:137). Thereupon emotions as communication barriers are difficult to anticipate, predict, control or read in individuals. Emotions make it difficult to communicate in a way that is expected since emotions prevent individuals to be objective. Emotions might also influence the semantics of communication (Daft *et al.*, 2010:670).

3.4.3 Developing communication skills

De Janasz *et al.* (2009:133) state that communication skills are the most important competency employers need when hiring employees. According to Horn (2009:91) graduates need to be able to read accurately, reflectively and actively. They must be able to construct sound and convincing arguments in written format and orally and be competent in giving and receiving feedback.

According to the level descriptors of the South African National Qualifications Framework depicted by SAQA (2010:4-7), undergraduates need to demonstrate communication skills on different complexity levels as they progress from their first year to their final year (third year) of study (table 3.2). As with problem-solving, South African universities need to ensure that specific strategies and policies are developed to ensure that communication are focus on in curriculums and learning environments.

Table 3.3: Communication level descriptors

Level 5: First year level	Level 6: Second year level	Level 7: Third year level (Final year)
Students should be able to gather information from a range of sources, including oral, written or symbolic text. They should also be able to communicate information reliably, accurately and coherently, using conventions appropriate to the context, either in writing, orally or in practical demonstration.	Students should be able to present and communicate complex information reliably and coherently using appropriate academic, professional or occupational conventions, formats and technologies for a given context.	Graduates should be able to develop and communicate their ideas and opinions in well-formed arguments, using appropriate academic, professional or occupational discourse.

SAQA (2010: 4-7)

From the information in table 3.2 it is evident specific descriptors exist for higher education institutions to enable students develop their communication skills and be equipped to function effectively in the working environment. According to Stevens (2005:2) employers recommended that students receive more extensive training in oral communication and written communication skills, self-expression as well as the use of electronic media, such as e-mail and presentation programs

3.5 TEAMWORK

Teams and teamwork are becoming increasingly prevalent in the work environment, especially in businesses that aim to accomplish tasks through small groups of people who are collectively responsible for achieving objectives and whose work is interdependent (Hellriegel *et al.* 2008:27). In these instances employees need to cooperate with others and express a collective identity (West, 2012:15).

Although many researchers do not differentiate between the concepts groups and teams Daft *et al.* (2013:345) argue that there is a significant difference between the meaning and functioning of groups and teams. A group is a collection of people working together but not necessary working together towards the same goal whereas a team consists of three or more individuals who are working together to achieve a common objective (De Janasz *et al.*, 2012:217; Daft *et al.*, 2010:687). A group will become a team when the members demonstrate a commitment to each other and to the end goal (De Janasz *et al.*, 2009:216). Consequently, it is vital to become proficient in leading and participating in teams (Whetten & Cameron, 2011:539).

3.5.1 Types of teams

De Janasz *et al.* (2009:202-203) distinguish between cross-functional teams, self-managed teams and process improvement teams. Herewith a distinction is also made between formal teams which include vertical, horizontal and special-purpose teams, self-directed teams and teams in the new work environment which includes virtual and global teams (Daft *et al.*, 2010:690). According to Horn (2009:123) there are eleven types of teams in the modern society, which include cross-functional, committee, taskforce, problem-solving, product design, work group, work team, quality circle, research, virtual and high performance teams.

Although the aforementioned teams are evident in various businesses and created for different purposes each has the aim to either develop or deliver products or services, improve processes, manage work or solve issues in the business. The value in characterizing different types of teams, descriptions and classifications are merely the first steps in understanding the implications of team functioning (Kozlowski & Bell, 2001:9). For teams to be effective in their functioning they need to consist of employees with enough and relevant experience who are motivated to achieve, committed, determined, persistent, tolerant of risks, ambiguous, creative, and flexible (Spinelli & Adams, 2012:98).

3.5.2 Effective teams

According to Daft *et al.* (2010:712) teams are essential in the modern work environment, but not all teams are effective. Although managers and businesses strive towards effective team functioning, conflict within teams and poor performance by team members are often witnessed in the work environment. One of the main behavioural determinants for the ineffective functioning of teams in the work environment is the lack of employees to realise the value of teamwork in achieving the business goals. An effective team is a team that has a productive output, creates personal satisfaction and provide the opportunity for members to adapt and learn (Daft *et al.*, 2010:688).

When a business makes use of teams and those teams work effectively, some advantages accumulate for the business and the team members themselves. These advantages include (De Janasz *et al.*, 2009:204-206):

- Increased creativity, problem-solving and innovation: Bringing together a group of individuals who possesses a wealth of ideas, perspectives, knowledge and skills can result in a synergy through which new ideas can be created and problems solved.

- High quality decisions: Individuals who respect diverse backgrounds and experiences can result in high quality decisions.
- Improved processes: Problem-solving follows a systematic approach when there is effective teamwork.
- Global competitiveness: Diverse teams have skill sets and perspectives that are superior to what a single individual can contribute and enable the business to compete globally.
- Increased quality: Effective teamwork results in increased productivity, timeliness, efficiency and employees showing accountability for their work.
- Improved communication: Teamwork improves communication between members and individuals feel more confident to mention their point of view.
- Teamwork reduces absenteeism and increase employee morale.

Although Hellgriegel *et al.* (2011:349) agree that teamwork improves on-time delivery of results, customer relations, quality of services and products and efficiency, some factors have a negative influence on the effectiveness of teams. Horn (2009:121) declares that teams are influenced negatively when they lack trust, commitment, clear and concise aims and objectives. Similarly if team are unable to plan and they have weak leaders they are likely to fail to achieve expected goals. It is therefore important for team members to have a positive behaviour in the team, because undesirable negative behaviour influences the members' contributions to the team, it could distract the leader and negatively affect other team members (Horn, 2009:116).

3.5.3 Developing teamwork skills

Teamwork is a skill that is learned and developed over time. Traditionally, universities have encouraged and rewarded individual efforts which often lead to students being able to mostly work individually. However, when they graduate and enter the work environment they feel frustrated since they have to function in work teams of which they had little exposure (Crebert *et al.*, 2009:7). In recent times universities are more prone to the incorporation of teamwork or co-operative learning into curriculums, since the work environment demands actions and outcomes which are achieved by groups or teams (Horn, 2009:105).

In the modern business, most employers value teamwork skills in graduate employees more highly than their ability to work independently. In the work environment, employees are often allocated to project teams over whose membership or task focus they have no control. Employees need to be adaptable, flexible, and able to work with other team members in a

cross-disciplinary team to achieve a common goal (Crebert *et al.*, 2009:7; Horn, 2009:94). Omar *et al.* (2012:108) state that graduates should be able to function effectively in teams. This means they should be able to work with people of different ages, gender, race, religion or political views; work as an individual and as a member of a team; know how to define a role as part of a team; apply teamwork to a range of situations; identify the strengths of team members; and be able to coach, mentor and give feedback (Dest, 2009). Students can, however, learn to be effective team members in virtually any learning context at university where they are expected to complete a task which is structured carefully, such as laboratory sessions, in project work, in tutorials and seminars, in case studies and in problem-solving exercises (Crebert *et al.* 2009:7).

According to the level descriptors of the South African National Qualifications Framework depicted by SAQA (2010:4-7), undergraduates need to function effectively within a team and demonstrate their competency by being able to:

- contribute new ideas to the team,
- support other members of the team,
- take a share of the responsibility in the team,
- mediate between team members, and
- understand their role in the team (University of Bolton, 2012).

3.6 SELF-MANAGEMENT

Employers expect graduates to demonstrate self-management skills and they often refer to self-management as being the ability to management one's time or be responsible employees, without realising the multiple components within the context of self-management. According to Hellgriegel *et al.* (2008:33) and De Janasz *et al.* (2009:81) self-management is a component of emotional intelligence, which means individuals know their own strengths and weaknesses and they do not blame their difficulties on situations or other people. Daft *et al.* (2010:536) furthermore explains that self-management is the ability to control disruptive or harmful emotions and balance one's moods. People who are skilled at self-management remain optimistic and positive, despite setbacks or obstacles. The ability to manage one's self is crucial for pursuing long-term goals and to be successful and satisfied in business (De Janasz *et al.*, 2009:83).

Considering the different views of self-management by researchers, Daft and Marcic (2014:57-58) explain self-management as being two fold. On the one hand it refers to an individuals' ability to control disruptive, unproductive or harmful emotions and desires. On the other hand, it refers to an individuals' capacity for initiating and pursuing goals, conscientiousness (honoring commitments) and adaptability (ability to adjust to changing situations and overcoming obstacles). Self-management is therefore not only an individual's reaction to negative emotions and desires, but also the ability to be proactive in the work environment. Individuals who are in control of their feelings and impulses are able to create an environment of trust and fairness. Trust and fairness enhances the integrity of an individual, which is a personal asset and a business strength (Goleman, 2004:86). Self-management is equally significant for competitive reasons. Businesses nowadays are prevalent with ambiguity and change, and graduates who have mastered their emotions are able to adapt to these changes effortlessly.

Other references to self-management often include components such as personal drive and resilience, balancing work/life issues, self-awareness, goal setting, time management, creativity and innovation and self-confidence (Hellgriegel *et al.*, 2008:33). However, since universities need to provide opportunities for the development of self-management skills, curriculums do not necessarily focus on all aspects pertaining to self-management.

An analysis of the literature on self-management indicated that the most important self-management skills expected by employers include self-awareness and development (par. 3.6.1), balancing work and life issues (par. 3.6.2), goal setting (par. 3.6.3) and time management (par. 3.6.4). In this study these four skills will be focused upon in detail to fully understand the need for graduates to be self-managers.

3.6.1 Self-awareness and development

In the last decade the ability to find a work that is satisfying is even more important than having opportunities for promotions and upward advancement (Hellgriegel *et al.*, 2008:34). If individuals understand the type of work they find satisfying and when they develop the skills to perform in the work environment, they will be able to improve their success rate (Hellgriegel *et al.*, 2008:34). These individuals tend to be superior performers and play a significant role in the success of a business (De Janasz *et al.*, 2009:6).

As a result, De Janasz *et al.* (2009:5) describe self-awareness as the starting point for effectiveness at work, based on the knowledge of having work satisfaction. Self-awareness also supports an individual to understand the business in which he or she is operating, which leads to an individual which has increased productivity, manages others effectively, develop

relationships with others, setting appropriate life and career goals and contribute to the business (De Janasz *et al.*, 2009:6).

Individuals that are self-aware therefore have the ability to recognize and understand their own emotions and they realize how their emotions affect other's personal and work life (Daft & Marcic, 2014:57). Self-awareness gives individuals the ability to accurately assess their strengths and weaknesses as well as a good sense of self-confidence (Daft *et al.* 2010:536). According to Goleman (2004:85) individuals that are self-aware speak truthfully and openly about their emotions and the impact it has on their work. They have a firm grasp on their capabilities, limitations and strengths and they are comfortable talking about it. They furthermore demonstrate a need for constructive criticism, they take calculated risks and they will ask for a challenge if they know they are able to manage it.

3.6.2 Balancing work/life issues

New graduate employees often find it difficult to balance their work and personal life. According to Tyler-Baxter (2012:1) graduates experience pressure from their work life especially in the first year of work. This is due to the work load which is often challenging to handle. Guest (2002:263) and Sturges (2008:118) defines a balanced life as having sufficient time to meet commitments at both home and work so that neither is neglected.

The challenge of balancing work and one's personal life raises attention to a balanced life for all individuals. The problem pertaining to work and life balance is that graduates have a desire to develop and manage their careers on their own terms. As an entrant in the work environment, it is not easy to control one's career immediately, but this career individualism could be achieved through graduates that balance their work and non-work lives (Tyler-Baxter, 2012:14).

3.6.3 Goal setting

Goal setting is a way of determining work and life priorities and the development of strategies in order to attain personal and professional objectives (De Janasz *et al.*, 2009:50). A goal is a general statement about a desired outcome with one or more specific objectives that define in precise terms what is to be accomplished within a designated time frame. A goal may be performance-related, developmental, a special project, or some combination of these (Johnson, 2011:5). A performance goal is usually linked to accountability and could involve problem-solving, innovation, or implementation of some type of improvement. A developmental goal may serve to enhance performance in the current role or prepare for a new or future role. Special projects could include an assignment that builds experience, be based on the departmental

plan, or meet a particular organizational need. Goal setting is imperative for individuals' work and personal life since it has numerous benefits which include:

- **Morale/ Esteem** – Successful goal completion extends the belief of what an individual can accomplish.
- **Purpose/ Direction** – Written goals formalizes dream and wishes that an individual want to obtain. Writing goal statements and developing an action plan gives an individual purpose and direction through his life.
- **Motivation** – By means of goal setting, an individual directs him or herself towards fulfilling dreams and wishes. This is a form of motivating an individual to achieve continual success.
- **Productivity** – Goal setting gives an individual a way to measure success. Goal setting also helps to provide balance and perspective in decision making about time and resources. The effective decisions about time and resources enable an individual to be more productive. (De Janasz *et al.*, 2009:50, 51)

Although different goals are set for different situations, all goals are set by the same system, namely the SMART system, which is the most popular system used to successfully implement goals (De Janasz *et al.*, 2009:53; Horn, 2009:73 & Daft *et al.*, 2010:255). As depicted in table 3.3 SMART is the acronym derived from the elements which dictates whether a goal is well developed, measurable over time and achievable with the available resources.

Table 3.4: SMART

Specific, Significant, Stretching	Goals should specify what they want to achieve
Measurable, Meaningful, Motivational	Measure whether goals are reached or not?
Achievable, Attainable, Acceptable	Are the goals able to be achieved?
Realistic, Relevant, Reasonable	Can the goals be achieved with the resources?
Time-bound, Tangible, Timely	When should the goals be reached?

Source: De Janasz *et al.*, 2009:53; Horn, 2009:73 & Daft *et al.*, 2010:255.

According to Polziehn (2011:8) it is imperative for graduates to manage their careers by setting SMART goals. He also states that graduates should take ownership for and manage their career progression, by setting realistic and achievable career goals, and identify and develop ways to improve their employability.

3.6.4 Time management

Time-management is the ability to prioritize tasks and activities according to importance and urgency, to work efficiently and the ability to delegate appropriately (Griffen & Van Fleet, 2014:10; 57). According to De Janasz *et al.* (2009:72) time management entails the ability to allocate time and resources effectively in order to accomplish objectives. Time-management skills allow individuals to control their work activities more effectively and to maintain a balance between work and personal life, increase personal productivity and reduce stress levels.

Although time management skills have numerous benefits for individuals, certain time wasters occur. Time wasters are any barriers which influence the effective management of individuals' time, such as telephones that ring constantly, drop-in visitors, meetings, procrastination, indecision and paperwork. Individuals with developed time-management skills take these time wasters into account and mostly use four different time management techniques to ensure productive outputs (Daft & Marcic, 2014:126-127). The first technique is the use of alphabet letters to prioritize tasks and activities where "A" items are highly important (must be done urgently), "B" items are next in importance ("should do"), "C" items would be nice to get done, and "D" items can be delegated to a competent employee. Another technique is the Pareto 80/20 rule to time-management. This rule suggests that 20 percent of activities and effort produces 80 percent of the results. Individuals will therefore know where to invest their time if they are able to identify the 20 percent of activities that will produce the 80 percent of value. Some individuals also spend 10 minutes each evening reviewing the day's activities and plan ahead to the next day by making a "to do" list of activities that must be accomplished and actions that are needed to achieve them. Additionally individuals also do one activity at a time in order to spend all attention on one activity to improve the results.

According to De Janasz *et al.* (2009:74) these techniques are not aimed at filling every minute of the working day. It rather means allowing enough time to complete tasks and activities and plan effectively to allow time for unexpected circumstances that are inevitable.

3.6.5 Developing self-management skills

According to the level descriptors of the South African National Qualifications Framework depicted by SAQA (2010:4-7), undergraduates need to demonstrate self-management skills on different complexity levels as they progress from their first year to their final year (third year) of study (table 3.4). South African universities therefore need to ensure that specific strategies and policies are developed to ensure that these skills are focus on in curriculums and learning environments.

Table 3.5: Self-management level descriptors

Level 5: First year level	Level 6: Second year level	Level 7: Third year level (Final year)
Students should be able to: <ul style="list-style-type: none"> • take responsibility for their own learning within a supervised environment • make decisions, be responsible for their actions and evaluate their own performance against given criteria. 	Students should be able to: <ul style="list-style-type: none"> • evaluate their own learning and identify their learning needs within a structured learning environment • take initiative to address these needs and assist others with identifying learning needs. 	Graduates should be able to: <ul style="list-style-type: none"> • operate in variable and unfamiliar learning contexts which require responsibility and initiative • accurately self-evaluate, identify and address own learning needs • interact effectively in a learning group

Source: SAQA (2010: 4-7).

From the information in table 3.4 it is evident that specific descriptors exist for higher education institutions to enable students to develop their self-management skills and be equipped to function effectively in the working environment. These descriptors indicate that students need to manage their own learning by evaluating, identifying and addressing their needs.

3.7 SUMMARY

Employability and skills were distinguished in order to understand the concept of employability skills as a whole. Employability skills are those skills employers deem necessary for the successful functioning of newly appointed graduates in the work environment.

The need for the correct skills to be effective in the work place is a reality and employers expect graduates to obtain these skills. However, employers do not expect university graduates to have all the skills and knowledge of a good worker, since they realise that it takes time and effort for graduates to translate and transform the knowledge and skills they learnt in universities to the working environment.

Although this might be true, it is important for graduates to not only have academic or subject knowledge, but also numerous generic skills to function effectively in the working environment. From the myriad of skills needed by graduates, four skills that are deemed most important include problem solving, communication, teamwork and self-management. These skills were discussed and also form the basis of the empirical part of this study.

The following chapter will discuss the research methodologies which were used in this study.

CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

In this chapter the research methodology and processes used to achieve the objectives of this study is examined. This study consists of a literature study and an empirical investigation to solve a specific problem as mentioned in Chapter 1.

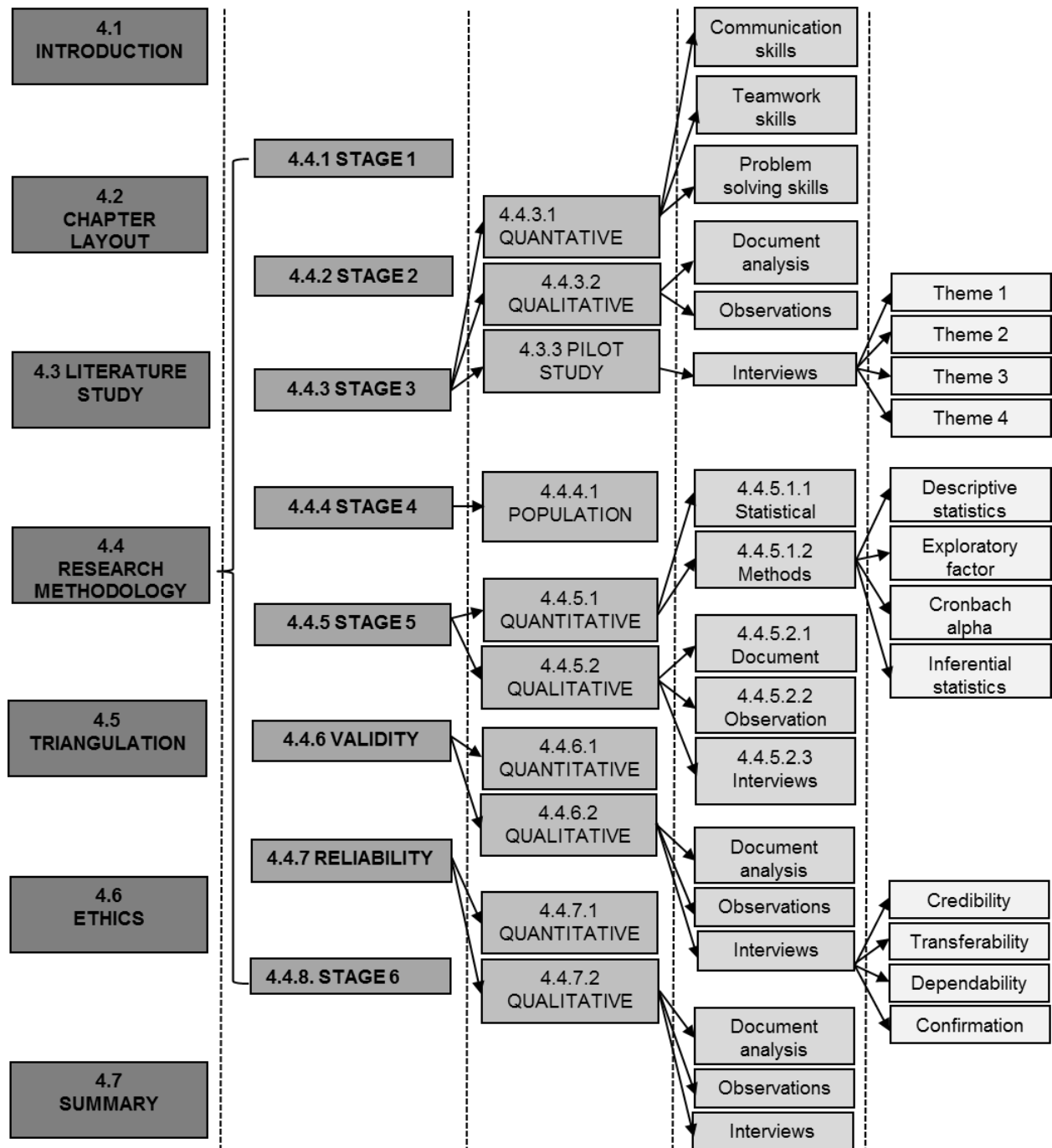
According to Bergh and Theron (2003:21), a research design denotes a “specific purposeful and coherent strategic plan to execute a particular research project in order to render the research findings relevant and valid.” This chapter deals with the research methodology of this study and includes a description of the population and sample, a detailed description of the measuring instruments (validity, reliability and interpretation).

In this study, both quantitative and qualitative research methods were used to determine final year business management undergraduates’ employability skills. According to Delport and Fouche (2011:436) the use of more than one research method can improve the validity and quality of an investigation because of the fact that the methods supplement each other. The nature of the investigation on the different employability skills also obliged the researcher to use more than one method. Multi-methods research is the research method that was used in this study. Multi-methods research uses quantitative and qualitative methods independent of each other to answer specific research questions (Onwuegbuzie *et al.*, 2009:14; Maree, 2007:261).

All research instruments was designed based on the literature and adopted from existing questionnaires/ studies. The results from the skills measurements will determine the extent to which a university needs to focus on the development of undergraduate business management students’ employability skills. The participation of this study was completely voluntary and anonymous.

The research instruments were constructed to meet the objectives of the study. Experts in the field of business management, communication and teamwork were involved to ensure that the study is reliable and valid. All the instruments used were analysed to ensure adherence with the code of ethics formulated by the University. Figure 4.1 provides an abbreviated synopsis of Chapter 4 pertaining to the main sections that are to be discussed.

Figure 4.1: Chapter 4 abbreviated synopsis



4.2 LITERATURE STUDY

Background information was collected on the topic. Previous literature was studied in order to form a broad view about the topic and to combine previous studies with knowledge gained recently. A literature study was conducted to show familiarity with the topic and to combine existing knowledge in the research field and abridge accumulated knowledge to build on the work of other researchers (Neuman, 2007:96).

The literature study was conducted by using scholarly articles, relevant books, subject specific journals and websites such as the marketing research journal, SAGA dictionary and research methodology sites. Articles and journals were obtained from different databases and included EbscoHost, SAePublications and Emerald. Books that were used covered a wide range of subjects that are specific to this research. These books included subjects like management, leadership, organisational culture, human resource management, research methods and procedures. Electronic search engines that were used include Google (www.google.com).

Some of the sources that were consulted dates back as far as 1966; these older sources are used owing to the contributions made by “fathers” of a specific school of thought or concept and are important to understand the full impact of what needs to be researched. Older sources place recent research in the industry into proper perspective. The inclusion of these older sources allows the use of primary sources instead of secondary sources for scientific accuracy and due to more recent sources also referring to these primary sources.

4.3 RESEARCH METHODOLOGY

In this study the data collection was systematic, controlled and empirically performed – through the use of multi-methods research. Multi-methods research is a variation of mixed-methods research. Mixed-methods are a combination of quantitative and qualitative research methods which focus on collecting; analysing and mixing both quantitative and qualitative data in a single investigation since the use of both approaches in combination give a better understanding of a research problem (Delpont & Fouche, 2011:435, Bergman, 2008:1; Strydom, 2003:116-121). Where mixed-methods uses one method (either quantitative or qualitative data) to infuse the other, multi-methods research uses quantitative and qualitative methods independent of each other to answer specific research questions (Onwuegbuzie *et al.*, 2009:14; Maree, 2007:261).

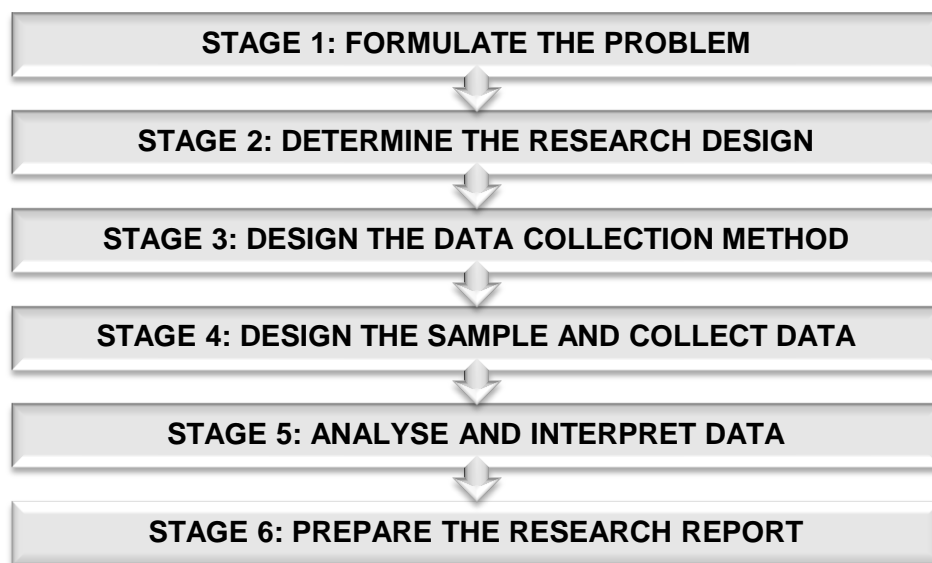
Even though quantitative and qualitative research approaches differ in various important aspects, Dreyer (1998:23) advises that: “Whether one conducts quantitative or qualitative research, one has to be insider and outsider, engaged participant and detached observer.” The abovementioned notion means that quantitative and qualitative research approaches do not need to necessarily be limited. The one method can complement the other. Both quantitative and qualitative approaches have its strengths and weaknesses and therefore a mixture of both can have a positive effect on the outcome of the research (Kent, 2007:251).

Henceforth, research is the objective and systematic identification, collection, analysis, distribution, and use of information in order to improve decision-making related to the identification of opportunities and solution of problems (Malhotra, 2010:39). Nonetheless, every

research problem is unique and requires adapting for its own special distinction. Any research project requires a sequence of steps that needs to be followed (Iacobucci & Churchill, 2010:29).

In this study the stages in the research process are represented in Figure 4.2. The first stage includes the formulation of the problem, followed by stage two which focuses on determining the research problem. During the third stage the design of the data collection is done. The sample design and data collection is considered as the fourth stage. Stage five encompasses the data analysis and interpretation of data. Stage six entails the preparation of the research report. These stages will be discussed in detail in the following paragraphs with reference to this study.

Figure 4.2: The research process



Source: Iacobucci and Churchill (2010:31).

4.3.1 Stage 1: Formulate the problem

The research problem can only be defined if the broader interest in the research topic is made more specific so that it is small enough to investigate. Once the problem has been formulated with care and precision, research can be designed to provide pertinent information that includes specification of the research project's objectives (Iacobucci & Churchill, 2010:29).

To be able to solve the problem question of the empirical component, the objectives are developed to investigate the problem from various angles to improve the quality of the study (Maree, 2007:261).

The primary objective which guided this study was to measure final year business management undergraduates' employability skills.

Secondary objectives are derived from the primary objective and research problem. In this study the secondary objective pertaining to the evaluation of the employability skills of final-year undergraduate Business management students (par. 1.4.2; secondary objective 4) were achieved by means of:

- Quantitative research methods which were used to determine statistically the following:
 - Investigate the problem solving skills of undergraduates
 - Identify the written communication skills of undergraduates
 - Determine the oral communication skills of undergraduates
 - Discover the teamwork skills of undergraduates
- Qualitative methods which were used to:
 - Determine the problem solving skills of undergraduates by analysing the documents
 - Identify the oral communication skills of undergraduates by means of observations
 - Evaluate the teamwork skills of undergraduates by means of observations
 - Assess the undergraduates' self-management skills by conducting interviews

4.3.2 Stage 2: determine the research design

A research design is a basic framework or action plan for a study which specifies the methods and procedure for the collection and analysis of the needed information (Iacobucci & Churchill, 2010:58). According to Zikmund and Babin (2010:64) and Malhotra (2010:42) the purpose of a research design includes determining possible answers to the research problems, testing the hypotheses of interest, and providing the information needed for decision-making. Research designs are therefore used to find credible and legitimate answers for research problems (Johnson & Onwuegbuzie, 2004:21-22).

In this study, descriptive research was conducted to determine the frequency of occurrences or the relationship between two variables (Iacobucci & Churchill, 2010:59) and addresses *who*, *what*, *when*, *where* and *how* questions (Burns & Bush, 2010:123; Zikmund & Babin, 2013:49). In a descriptive study the phenomenon being measured is measured as it is with no intervention from the researcher (Singh, 2007). A large proportion of social sciences research is embraced by descriptive research and it is conducted in order to provide an accurate description of some

aspect of the researched environment (Aaker *et al.*, 2013:75). Descriptive research offers a representation of the characteristics of a specific situation such as customers, objects, businesses or the environments' characteristics (Zikmund & Babin, 2010:51).

4.3.3 Stage 3: design the data collection method

Data collection refers to the gathering of information for the purpose of conducting a study. The researcher must determine where and how the data can be obtained after the type of data needed, has been decided on (Struwig & Stead, 2007:41). In this study, primary data which were not available before were obtained from sources such as completed questionnaires, interviews, observation sheets and document analyses (Bradley, 2007:518).

Furthermore, data were collected by using both quantitative and qualitative research methods to achieve the research objectives (par. 4.4.1) (Zikmund & Babin, 2010:132). As mentioned in chapter 3, four skills were deemed important to measure. The nature of the skills determined the methods which were used to collect data. Therefore, quantitative data collection methods were used to collect data pertaining to some elements of communication skills (written and oral), teamwork skills and problem solving (par. 4.4.3.1), whereas qualitative data collection methods were used for collecting data pertaining to other elements of problem solving, communication skills (oral), teamwork skills and self-management skills (par. 4.4.3.2).

4.3.3.1 Quantative data collection

Quantitative research addresses research objectives through empirical assessments that include analytical approaches and numerical measurement (Zikmund & Babin, 2013:99). Quantitative data accordingly depend on the statistical analyses of data as it refers to numerical data and is based on neo-positivism which is concerned with the allocation of numbers to the objects of study (Struwig & Stead, 2007:243). Quantitative research is also known as survey research, where the response options of structured questions are predetermined (Burns & Bush, 2010:209). Primary data is collected from a large number of respondents, with the aim of gaining information to make accurate predictions about relationships, to gain meaningful insights into those relationships, validate the relationships, and test hypotheses (Hair *et al.*, 2013:77-78). As mentioned in the previous paragraph, quantitative methods were used to collect data pertaining to some elements of communication skills (written and oral), teamwork skills and problem solving. In the following paragraphs (4.4.3.1.1-4.4.3.1.3) the collection of data pertaining to these skills will be described.

4.3.3.1.1 Communication skills data collection

In this study, communication skills data were collected by means of a communication skill test. This test (Appendix C) consisted of two sections which focused on written and oral communication separately. The written section of the communication skill test expected the respondents to answer a specific question pertaining to a business related problem scenario in written form. The question entailed the compilation of a recommendation or justification report which was limited to a maximum of 350 words. The oral section of the test expected the respondents to form teams of 5 respondents in each team. They then had to orally debate possible strategy solutions to two questions pertaining to the scenario. The first question expected the respondents to discuss positive and negative aspects in terms of the 8 business functions pertaining to the scenario, while the second question encouraged them to identify and motivate the most important function which would have an impact on the business in the scenario.

The respondents' oral and written communication skills were assessed separately by an expert in the field of communication. This expert graded the respondents' written and oral skills on separate assessment rubrics (Appendix D) which were compiled from the literature study (par. 3.4). The items used for assessing the respondents' written skills focused on their ability to analyse the problem, conceptual clarity, structure and development, tone/style of the message, technical business language and lastly grammar, spelling and sentence construction. The assessment of the respondents' oral skills focused on their vocabulary, listening skills, oral delivery, non-verbal and verbal correlation, their arguments and conflict management. From the assessment of these items, the expert then graded the respondents' written and oral skill levels separately on a four-point Likert scale for statistical analysis:

- Level 1- Not skilled (the student shows no competency in the demonstration of this skill),
- Level 2- Substandard (the student shows competency equal to or lower than first-year university level),
- Level 3- Fairly skilled (the student shows competency equal to second-year university level),
- Level 4- Skilled (the student shows competency in demonstrating the skill).

4.3.3.1.2 Teamwork skills data collection

Teamwork skills data were collected from the same teams which were formed for the data collection of the respondents' oral communication skills (par. 4.4.3.1.1). Since the researcher was challenged with the assessment of various teams' skills at the same time, the respondents'

were video recorded for later analysis. The rubric used to assess the respondents' teamwork skills was compiled from the literature study (par. 3.5) and focused on their participation, questioning, listening, communication, conflict, leadership, respecting, persuading, adaptability, support, responsibility, individuality, diversity, creativity and evaluative skills.

The data collection of the respondents' teamwork skills entailed not only an external observation analysis, but also a self-assessment by the respondents themselves. The same assessment rubric used by the researcher to assess the respondents' teamwork skills was also used by the respondents' to collect data on their own perceptions of their teamwork skills (Appendix E). The purpose for the external observation assessment as well as the respondents' self-assessment was to determine whether there was a difference in the respondents' skills and their perception of their skills.

From the data collected by means of the external observation assessment as well as the respondents' self-assessment, the respondents were then graded on the same four-point Likert scale used for the communication skills (par. 4.4.3.1.1) for statistical analysis.

4.3.3.1.3 Problem solving skills data collection

Problem solving skills data were collected by means of a problem solving test (Appendix A). The test consisted of three sections which were used for collecting quantitative and qualitative data. Sections A and C were analysed for qualitative purposes (par. 4.4.3.2.1), while section B were quantitatively analysed. In section B of the problem solving test, the respondents had to answer seven questions based on a case study. The researcher explained all the questions to the respondents to ensure clarity in their understanding. All the questions had to be answered individually in written form to enable to researcher to measure the respondents' problem solving skill levels effectively. After the completion of this test the researcher assessed section B of each respondent's test according to a rubric which was developed from the literature study. From the assessment the respondents' skill levels on each question pertaining to the case study was graded on the problem solving four-point Likert scale (Appendix B) for statistical analysis.

4.3.3.2 Qualitative data collection

Qualitative research aims to describe the depth and breadth of belief or opinion and attitude, rather than to quantify business environments (Bradley, 2007:518). Qualitative research involves the collection, analysis, and interpretation of data by observing what people do and say (Burns & Bush, 2010:202). The main goal for using qualitative data collection methods in this study was to collect primary data for an in depth description of the respondents' employability skills (problem solving, communication and self-management) and to determine the specific

extent to which they are able to demonstrate these skills. As mentioned in paragraph 4.4.3 qualitative data collection methods were used for collecting data pertaining elements of problem solving, communication skills (oral), teamwork skills and self-management skills. In the following paragraphs (4.4.3.2.1-4.4.3.2.3) the collection of data pertaining to these skills will be described.

4.3.3.2.1 Document analysis for collecting problem solving skills data

Qualitative data pertaining to problem solving were collected by means of a problem solving test (Appendix A). The test consisted of three sections which were used for collecting quantitative and qualitative data. Sections A and C were analysed for qualitative purposes, while section B were quantitatively analysed. The data from section A and C were collected by means of qualitative document analysis. In section A of the problem solving test, the respondents' skills in developing the process which could be used to solve problems were measured. This section of the test consisted of a business related problem in the form of a scenario. The respondents were not expected to solve this problem, but rather identify the specific process they need to follow to solve this problem. The process which consists of five steps was given to the respondents in random order. Each step consisted of four options from which they had to identify the correct option to form the process. This section had a definite correct and incorrect answer. Only one option under each step could be selected and each step in the process had to be used only once.

In section C of the problem solving test the respondents had to solve a creative problem. This section consisted of only one question and it was used to measure the respondents' creative problem solving skills. After the respondents developed their problem solving process in section A and followed the structured list of seven questions in section B, they had to use the relevant knowledge and solve the creative problem in section C. The respondents' skills to solve the creative problem in section C were measured according to their ability to think creatively, out of the box, according to a specific thinking process as well as their consideration for as many options as possible to solve the problem.

4.3.3.2.2 Observations for collecting communication and teamwork skills data

Qualitative data from observing the respondents' communication and teamwork skills were obtained by an expert in the field of communication and teamwork. Observation data were captured on protocol sheets. These protocol sheets distinguished between set themes which were observed to enable the research to provide an in-depth description of respondents' ability to demonstrate these skills. With regard to the respondents' communication skills, they were

observed on the manner in which they communicated with each other, how they provided feedback as well as the verbal, non-verbal, emotional, argument and attitude barriers they might have experienced during communication. The respondents were also observed with regard to their teamwork skills which focused their participation, questioning, listening, communication, conflict, leadership, respecting, persuading, adaptability, support, responsibility, individuality, diversity, creativity and evaluative skills.

Although areas of overlaps exist between the quantitative data collection and qualitative data collection for communication and teamwork, both these methods were used to establish a basis for possible triangulation between the data collected (par. 4.5).

4.3.3.2.3 Semi-structured interviews for collecting self-management skills data

Self-management skills data was collected by means of semi-structured interviews (Appendix G). These interviews involve one person being interviewed by an interviewer addressing topics predetermined by the researcher. According to Greeff (2011:348) an interview is a social relationship between an interviewer (researcher) and interviewee (respondent), where information is exchanged and the responses are recorded manually or electronically. Interviews can be conducted as unstructured one-to-one interviews, semi-structured interviews, ethnographic interviews, email, telephone or convergent interviews.

For the purpose of this study, the in-depth interviews were semi-structured which involved open-ended questions that the interviewee had to answer (Berndt & Petzer, 2011:46). All interviewees were asked the same questions which consisted of sections coinciding with the objectives stipulated for the study. The questions were organised according to predetermined themes which were identified from the literature study (par. 3.6). These themes as well as the formulation and order of the questions were as follow:

- **Theme 1: Self-awareness and development**

(Goals, emotions, strengths and weaknesses, continuous self-development)

- 1 Do you set appropriate life and career goals? Motivate your answer.
- 2 If you are unhappy about something that happened in your group, can you speak truthfully and openly about your emotions or would you rather avoid the subject? Motivate your answer.

- 3 If you feel unhappy or excited after a situation that occurred, do you recognize and understand your own emotions or don't you know what you experience and feel? Motivate your answer.
- 4 How do you react when people tell you that your actions are wrong and they want you to act in another manner (reaction to constructive criticism)? Motivate your answer.
- 5 If you are working in a group, would you act proactively and seek information about your strengths and weaknesses from others as a base of self-improvement or do you just get the task done? Motivate your answer.
- 6 If someone tells you about your weaknesses, would you assess their comments or would you just ignore it? Do you assess your strengths and weaknesses? Motivate your answer.
- 7 Do you strive to continuously better your own skills and qualifications (maybe after honours) and what do you do or what do you see yourself doing in future to improve yourself? Motivate your answer.
- 8 Do you take calculated risks? If you experience a challenge that you know might be difficult to perform, what would you do? If risks occur, how would you handle the risks?

- **Theme 2: Balancing work/life issues**

(Balance, exercise and eating habits, stress and tension)

- 1 Do you strike a reasonable balance between work and other life activities? Motivate your answer.
- 2 What activities do you do other than study?
- 3 Do you combine study with your other responsibilities (like doing assignments, preparing for class, being on time, actually going to class AND cleaning your flat, competing in sport, going to hostel meetings and attending and contributing in committees at the university.
- 4 Do you exercise regularly?
- 5 Do you manage frustration and reduce stress? Motivate your answer.

- **Theme 3: Goal setting**

(Goals on long term, short term, shorter term, deadlines, realistic goal setting)

- 1 Do you have goals for yourself? Elaborate.
- 2 Do you set goals for the short term (1 year)? Elaborate.
- 3 Do you set goals for the long term (5 years)? Elaborate.
- 4 If you want to achieve different things within the following few days, what do you do? (I set goals for the next few days for what I want to achieve with my time)
- 5 Do you have deadlines for accomplishing your goals? Elaborate.
- 6 Do you think you can reach your goals? Elaborate.

- **Theme 4: Time management**

(To-do lists, prioritizing tasks, diary usage, doing 1 activity at a time, time wasters)

- 1 What methods do you use to effectively manage time? (such as keeping track of my time, making to-do lists and prioritizing tasks)
- 2 Do you affirm your priorities so that less important things don't drive out more important things? Motivate your answer.
- 3 How do you stick to your time schedule?
- 4 What do you use to plan your days? Elaborate.
- 5 What emotions do you experience when you have your time planned out for the next few days? Elaborate.
- 6 Do you do one activity at a time and finish it or all at one time? Elaborate.
- 7 What do you experience as time wasters?

4.3.3.3 Pilot study

The use of pilot studies examines respondents' reaction to questions (McDaniel & Gates, 2010:339). Through this, insights with regard to any misinterpretations by respondents, poor answers, lack of continuity, and lack of enough time as well as additional alternatives for pre-

coded and closed-ended questions can be obtained. Zikmund and Babin (2010:61-62) assert that pilot studies assess the feasibility and understanding of the study and is used to refine measures by rectifying vital problems.

For the purpose of this study an extensive pilot study was undertaken. The pilot study included undergraduate students who enrolled in the post graduate diploma in Business Management at the North West University's School of Business in 2013. For each skill investigated (problem solving, communication, teamwork and self-management), 5 postgraduate students were selected to take part in the pilot study (total N=20).

The respondents of the pilot study gave no indication of any ambiguity of words or the questions pertaining to the various data collection methods. They had a clear understanding of what was expected of them. For this reason no changes were made to the tests or methods used in this study. The results of the pilot study is not reported on in this study, since one of the objectives of this study states that the skills of each respondent should be compared to him-/herself and this objective could not be achieved (different respondents were subjected to different data instruments and skills).

4.3.4 Stage 4: design the sample and data collection

The purpose of doing research is to gain information about the parameters of the population. Population information can be gained by conducting a census or a sample (Malhotra, 2010:370). A census is an accounting of the complete population (Burns & Bush, 2010:339). In contrast, sampling entails any procedure that draws conclusions based on measurements of a portion (subset) of the larger population (Zikmund & Babin, 2013:63). Sampling furthermore, involves the selection of a relatively small number of elements from a larger defined group of elements with the expectation that the information collected from the small group will allow accurate judgements about the larger group (Hair *et al.*, 2013:136).

4.3.4.1 Target population

Before data sampling can begin, researchers should consider who their target population is. Iacobucci and Churchill (2010:282) define the target population as the total number of cases that conforms to some selected specification. This enables the researcher to choose a more accurate study. The target population for both the quantitative and qualitative data collection methods of this study was selected by means of convenience and purposive sampling. This means that the study included all undergraduate business management students in their final year of study who were selected for their post graduate honours studies in the Marketing and Business Management program at the North-West University (Potchefstroom Campus) (N=45).

The purposive selection of the respondents restricted the generalisation of the results in this investigation to the target population. The results can therefore not to be generalised to the total population of final-year undergraduates, as it is the case with probability sampling (Gelo *et al.*, 2008:271).

The respondents in the semi-structured interviews included only nine students from the target population. These respondents were selected randomly and were given the opportunity to take part in the semi-structured interviews.

4.3.5 Stage 5: analyse and interpret the data

All skills tests were developed with assistance from an external expert in the field of study. The responses from the various research methods were either analysed by experts or the statistical division of the North-West University for accurate data analysis and quality purposes.

After the data were collected from all the respondents in the sample, the data analysis were done to summarize the information obtained from the skills tests (Cant, 2008). The answers of the skills tests were either numbered on a Likert scale or reported on qualitatively. The statistical division processed the statistics and analysed the data to ensure accuracy and reliability.

The data were coded by SPSS version 20 by IBM. Coding the data is described as assigning each question with a number value and categorizing the data from the Likert scale.

The SPSS program makes reading the data easier and having correct interpretations with good graphical presentations. This study will report on the results obtained and analysed in terms of the research objective of this study in Chapter 5.

4.3.5.1 Quantitative data analysis

The quantitative data are discussed through the statistical analysis of the tests data and the methods and statistical techniques used in this study.

4.3.5.1.1 Statistical analysis of the tests data

The data of the tests were marked by the researcher and the expert in the relevant field. The validity of the marking was ensured by another external expert and the researcher. The tests were marked by using a rubric that was combined through literature research and the same rubric for every skill was used throughout the study. The assessment of the tests was done on a Four-point Likert scale, which were further evaluated by the statistical department.

4.3.5.1.2 Methods and statistical techniques

The data collected for this study was analysed through descriptive statistics using the SAS 9.3 statistical analysis program. As a result of the fact that the study population was a convenient sample, no inferential statistics were used, but p-values are reported in this study for completeness. Cohen's effect sizes were used to make comparisons between groups' means. Cohen's effect sizes and the d-values gave an indication for the extent to which a finding is of practical significance. The process of data analysis can be described as "dissecting" the data in order to obtain answers to the research questions and to make relevant recommendations and conclusions for this study. The following section will describe the statistical techniques that were used in this study, namely descriptive statistics, exploratory factor analysis, Cronbach alpha and Conhen's effect sizes.

4.4 Descriptive statistics

Descriptive statistics are simple yet powerful and can summarise responses from a large number of respondents in a few simple statistics (Hair *et al.*, 2013:257; Zikmund & Babin, 2013:364). Descriptive statistics are the most efficient means of summarising the characteristics of large data sets (McDaniel & Gates, 2010:406). When researchers use a sample, the sample descriptive statistics are used to make inferences about characteristics of the entire population of interest (Zikmund & Babin, 2013:364). Descriptive statistics make use of techniques that take raw scores and summarise these in a more manageable form such as scores organised in a graph or a table which allow the view of the entire set of scores (Gravetter & Wallnau, 2009:6). The descriptive statistical techniques presented in Table 4.1 were conducted in this study.

Table 4.1: Descriptive statistical techniques

Descriptive statistical technique	Definition
Means	The mean can be defined as the average value within the distribution and the most commonly used measure of central tendency (Hair <i>et al.</i> , 2013:268)
Standard deviations	Standard Deviation (Std. Dev.) indicates the average distance of the distribution values from the mean (Hair <i>et al.</i> , 2013:272)

4.4.1 Practical significance

Based on the interpretation of Cohen's (Cohen, 1988:223) effect sizes, d-values are considered to be small at 0.2 (indicating a small effect), medium at 0.5 (indicative of a medium effect in

practice and noticeable with the naked eye), and large effect or practical significance at 0.8 or larger (Table 4.2).

The formula for the effect size is (Steyn, 1999:12):

$$d = \frac{|\bar{x}_1 - \bar{x}_2|}{s_{max}}$$

here:

- d is the effect size
- $\bar{x}_1 - \bar{x}_2$ is the difference between the means of two compared groups
- s_{max} is the maximum standard deviation of the two compared groups

These procedures were implemented using SAS (2011). All tests were conducted at a 0.05 significance level.

Table 4.2: Practical significance

Practical significance	Definition
Dependant samples	Effect sizes (d) is an indication of practical significance which is the extent to which a difference is large enough to have an effect in practice (Steyn, 1999)

4.4.2 Qualitative data analysis

The qualitative data analysis will be discussed through the document analysis, observations and semi-structured interviews used in this study.

4.4.2.1 Document analysis

The document analysis was performed to analyse the data from the problem solving skill test. This was done specifically to determine the way in which participants answered the questions and their ability to perform the skill, rather than answering the correct process. Hereafter the data were reported as qualitative data.

4.4.2.2 Observation

The data analysis of the observations was executed by both the expert in the field of study and the researcher according to the guidelines of Neuman (2007:335). These guidelines include:

- All the observations were recorded in order to ensure that effective and valid marks could be given.
- All the notes that were recorded on the observation sheets were combined to give an overview of the precise occurrences during the observations.
- Hereafter the themes that recurred were identified and described to give feedback on all the occurrences during the observations.
- The themes that were identified were organised in a logical order for reporting purposes.
- Hereafter the organised themes were reported as quantitative and qualitative data that were obtained from the observations.

4.4.2.3 Semi-structured interviews

The researcher performed interviews with a total of nine participants. The nine participants were randomly selected from the target population. The interviews were recorded and transcribed by an expert and thereafter themes were identified and reported on qualitatively.

4.4.3 Validity

Validity refers to the accuracy or the extent to which a test truthfully represents a concept, and if the measure actually measures what it is supposed to measure (Zikmund & Babin, 2013:258). Researchers need to be concerned about the validity since reliable scales are not necessarily valid (Hair *et al.*, 2013:166).

The accuracy of the measure can be inferred by looking for evidence of the following three types of validity (Iacobucci & Churchill, 2010:256):

- Criterion-related validity assesses the usefulness of the measure to predict a characteristic of the respondents (Malhotra, 2010:320; Zikmund & Babin, 2013:259).
- Content validity is a subjective but systematic evaluation of how well the content of a scale represents the measurement task at hand (Malhotra, 2010:320). Content validity or face

validity refers to the extent to which the content of individual measures matches the intended concept's definition (Zikmund & Babin, 2013:258).

- Construct validity addresses the characteristic or construct actually measured by the scale (Malhotra, 2010:320). It assesses whether the measuring scale does in fact measure what the researcher implied it to measure (Iacobucci & Churchill, 2010:257). Furthermore, an exploratory factor analysis is performed to determine construct validity (Bagozzi, 1994:342-344).

4.4.3.1 Validity of the quantitative data

The validity of the quantitative data (tests) was measured by content and construct validity. Although content validity of a measure instrument can cause the increasing of construct validity of a measuring instrument (Williams, 2003:97), both represent different strategies. "*Content validity is established if a test looks like a valid measure; construct validity is established if a test acts like a valid measure*" (Mitrushina *et al.*, 2005:41).

With content validity a thorough analysis and evaluation of the items are performed to assure that the items are representative of the specific construct. The content validity of the test was determined by the researcher and the expert in the field. Their tasks were to evaluate each test. All questions were obtained from literature and no adaptations needed to be made.

On the other hand, construct validity was reached, by using a factor analysis. Iacobucci and Churchill (2013:568) define factor analysis as the body of techniques concerned with the study of interrelationships among a set of variables, none of which are given the special status of a criterion variable. According to Pallant (2010:181), factor analysis indicates whether one group is significantly different from another or to test hypotheses. When a survey contains multiple correlated measures that might be measuring a common underlying construct, factor analysis is very useful (Iacobucci & Churchill, 2010:506). In this study, Kaiser's Measure of Sampling Adequacy (MSA) was used to examine the appropriateness of factor analysis. High MSA values (between 0.5 and 1.0) indicate that factor analysis is appropriate, whereas values < 0.5 imply that factor analysis may not be appropriate (Malhotra, 2010:638). For this study only MSA values > 0.5 was used. Factor analysis can be explorative (performed when the researcher is uncertain about how many factors may exist among a set of variables) or confirmatory (performed when the researcher has a strong expectation about the factor structure before performing the analysis) (Malhotra, 2010:625). As mentioned in paragraph 4.3.5.1, an exploratory factor analysis was conducted in this study.

Iacobucci and Churchill (2010:491) explain a factor as the linear combination of variables chosen to capture the “essence” of data. Factor loadings are indicative of the strength of correlation between a factor and measured variable (Zikmund & Babin, 2013:626). In determining the number of factors to retain, approaches based on eigenvalues and percentage of variance accounted for, were used in this study. The eigenvalue rule entails that only factors with a variance ≥ 1 are retained (Malhotra, 2010:643). An eigenvalue represents the amount of variance in the original variables that is associated with a factor (Pallant, 2010:184). The percentage of variance is the total variance attributed to each factor (Malhotra, 2010:638). Community measures the percentage of a variable’s variation that is explained by the factors. A relatively high community indicates that a variable has much in common with the other variables included in the group (Zikmund & Babin, 2010:627). To this end, Malhotra (2010:664) recommends that factors retained should account for at least 60 per cent of the variance.

After identifying the number of factors to retain by means of factor analysis, the factors must be named (Iacobucci & Churchill, 2010:501). Moreover, factor analysis is not only used in research to name the factors captured by the measuring scales, but also to refine the tests by isolating and then eliminating those items that do not seem to belong with the rest of the items (Iacobucci & Churchill, 2010:506). In this study, different factors were retained and will be discussed in the following chapter.

4.4.3.2 Validity of qualitative data

The validity of qualitative data differs from quantitative data in the sense that it is not statistically determined.

- **Document analysis**

The validity of the document were analysed by means of content validity. With content validity a thorough analysis and evaluation of the items are performed to assure that the items are representative of the specific construct. The content validity of the document was determined by the researcher and the expert in the field. Their tasks were to evaluate each question and determine whether the document “looked” accurate. All questions were obtained from literature and no adaptations were made. Therefore, the document analysis was accepted as being valid.

- **Observations**

The validity of the observations in this research study is strengthened through confidentiality, credibility and the confirmation thereof. Although the measures were not anonymous, there is confidence in the analysis and data of the researcher that it was an accurate representation of

the social world of the participants (Neuman, 2007:294). A certain level of confidentiality was obtained due to participants only providing their student numbers in order to keep record of their participation in all skill tests. Credibility in this research study was obtained through a detailed description of the actions, assumptions and procedures of the observation by the researcher. Input of the participants was similarly obtained and that also confirms the accurate description of their social world.

- **Semi-structured interviews**

The validity and reliability of interviews are determined through the trustworthiness thereof (Morse *et al.*, 2002:4, 5). To determine the trustworthiness of the data the credibility, transferability, consistency and confirmation of the data have to be described as mentioned by Bezuidenhout (2005:170-172), Morse *et al.* (2002:5) and Lincoln and Guba (1985).

- **Credibility**

The credibility of the research contributes to the content validity thereof (Tobin & Begley, 2004:391). Content validity in terms of qualitative research shows the truth value of the research (Poggenpoel & Myburg, 2004:421; Shenton, 2004:64). In this research study the credibility is obtained through the following persons and actions:

- The extended and varied involvement of the researcher in the empirical field (Poggenpoel & Myburg, 2004:421; Shenton, 2004:65). The researcher has two BCom degrees and an Honours degree in the field of study.
- The use of various researchers, data generation, contexts and data sources (Poggenpoel & Myburg, 2004:421; Shenton, 2004:65), that contributed to the completeness of the data to provide a more comprehensive image (Tobin & Begley, 2004:393). Although this research study is performed by one researcher, the input of study leader, experts in the field and other advisors is acknowledged. Individual interviews were performed and data of questionnaires combined and verified. All data were transcribed and evaluated by the researcher and expert in the industry.
- A literature study was done to confirm the purpose of the study (Kruger & Gericke, 2004:44), to formulate interview questions and verify data (Shenton, 2004:69). The motivation for the use of interviews as a qualitative research method was in advance investigated to determine the suitability thereof in the research context of the study.
- The use of known research methods that were established in quantitative investigations (Shenton, 2004:64, 73).

- Methods to promote the honesty of the participants such as the voluntary participation of participants, participation in their free time, participation in a safe environment, the open attitude of the researcher and the indication to the participants that no answer is right or wrong (Shenton, 2004:65-66).
- The repeat of certain questions to confirm the answers of participants. Paraphrasing was done by the researcher to summarise the information from participants and repeat it to them to be able to confirm the correctness thereof (Shenton, 2004:67-68).

- **Transferability**

Transferability contributes to the external validity of research. Although external validity is about the generalisation of a study (O'Leary, 2004:58; Tobin & Begley, 2004:391), the generalisation of data is not the purpose in this research study, but the application value of the research that promote transferability (Poggenpoel & Myburgh, 2004:421; Shenton, 2004:64). In this investigation the transferability was obtained through the following:

- A description on the method whereby participants were chosen for the interviews in a specific demographic context.
- The provision of a correct and rich description of the results so that the voices of the participants can be heard (Poggenpoel & Myburgh, 2004:421) and to determine the appropriateness in similar contexts (Shenton, 2004:71). Data from the interviews is discussed based on appropriate direct quotations to confirm results after an intensive data analysis was done.
- Recurring themes confirm data fullness and appropriateness of the themes in similar contexts of the same study.

- **Dependability**

Dependability contributes to the reliability of research (O'Leary, 2004:58; Tobin & Begley, 2004:391) and emphasises the consistency thereof (Poggenpoel & Myburgh, 2004:421; Shenton, 2004:64). In this investigation the dependability was obtained through the following:

- A process of verifying. All decisions from literature were verified, especially sources on research methodology. Verifying has also taken place through expert in the field and the study leader (O'Leary, 2004:58; Poggenpoel & Myburgh, 2004:421; Shenton, 2004:72; Morse *et al.*, 2002:9).

- The transcription of the interviews was done by an expert in the field. All transcriptions were evaluated by the researcher and expert in the field. Different themes were chosen to discuss similar findings from the interviews (Kruger & Gericke, 2004:44; Poggenpoel & Myburgh, 2004:421).
- The interview questions were evaluated by the researcher and expert in the field and after consensus was reached, further refined to address the themes (Kruger & Gericke, 2004:44).
- **Confirmation**

Confirmation contributes to the objectivity and neutrality of the research (Poggenpoel & Myburgh, 2004:421; Shenton, 2004:64; Tobin & Begley, 2004:391). In this investigation the confirmation was obtained through the following:

- The data of the researcher was verified with the literature. A reflective analysis was applied through the awareness of the researcher in terms of his influence on the data (O'Leary, 2004:58). The verifying of the data (such as dependability) was also emphasised to reduce bias of the researcher (Poggenpoel & Myburgh, 2004:421; Shenton, 2004:72; Morse *et al.*, 2002:11).
- The confirmation of the originality of the qualitative results was transcribed by the expert. Direct quotations were used from the discussion of the results to confirm the themes to obtain recurring themes from different interviews. It is also possible for other researchers to check if they can make the same conclusions (Poggenpoel & Myburgh, 2004:421).
- The acknowledgement of limitations of the investigation and the potential effect thereof (Shenton, 2004:73).

4.4.4 Reliability

Iacobucci and Churchill (2010:258, 591) define reliability as the similarity of results provided by independent but comparable measures of the same object, trait, or construct. Bradley (2007:64) and Malhotra (2010:318) assert that if the study is repeated and the results obtained are consistent, it means that it is reliable. Furthermore, reliability indicates a measure's internal consistency which is the key to understanding reliability (Zikmund & Babin, 2013:257).

Internal consistency is used to assess the reliability of a summated scale where several items are summed to form a total score (Malhotra, 2010:319). Split-reliability and coefficient alpha (or otherwise known as Cronbach's alpha) are two methods for measuring internal consistency reliability. In split-half reliability, the items on the scale are divided into two halves and the

resulting half scores are correlated (Malhotra, 2010:319). Cronbach's alpha demonstrates whether or not the different items come for variability. When items are not scored dichotomously, internal consistency can be determined by using the Cronbach's alpha coefficient method. Field (2005:640) defines Cronbach Alpha as a measure of reliability that ranges from 0 to 1. Scales exhibiting Cronbach's alpha coefficients ≥ 0.70 are regarded as possessing a good reliability. Scales with Cronbach's alpha coefficients ≤ 0.60 indicate poor reliability (Zikmund & Babin 2013:257).

The formula for Cronbach Alpha is:

$$R_n = \frac{k}{k-1} \left(1 - \frac{\sum V_i}{V_r} \right)$$

Where "k" the amount of items on the scale is, $\sum V_i$ is the total variances of items on the subscale and V_r shows the variance of the subscale (Schepers, 1992:64; Anastasi, 1997:124).

4.4.4.1 Reliability of quantitative data

According to Kruger and Gericke (2004:44) and Poggenpoel and Myburgh (2004:421) the reliability of a measuring instrument will increase if there is more than one researcher involved in the data collection and analysis. To increase the reliability of the tests they were marked by the researcher and the expert. In view of the fact that the expert was involved with the drawing up of the tests, the expert was familiar with the context of the research. Another reason was that the expert and study leader could minimise possible bias and subjectivity of the researcher in terms of the data collection.

The reliability of quantitative data for this study reflected a Cronbach Alpha value of above 0.5 for all constructs.

4.4.4.2 Reliability of qualitative data

- **Document analysis**

The reliability of the document analysis was ensured by the similarity of results provided by independent but comparable measures of the same construct. The documents are unobtrusive and can be used without imposing on participants and they can be checked and re-checked for reliability. The document analysis in this study, overcomes the difficulties of encouraging participation. Furthermore, the cause of the research study does not falsify the data.

- **Observations**

Neuman (2007:294) states that the reliability of observations is determined through the internal and external consistency of the occurrences that is observed. Internal consistency refers to the credibility of the data while external consistency refers to the confirmation of the data (“cross-checking”) through other researchers (Neuman, 2007:294).

In this study the internal consistency was obtained through the completion of the assessment rubric that was developed from literature. The criteria of the assessment rubric did not change through the research. External consistency was obtained through the involvement of an expert who analysed the participants’ actions.

- **Semi-structured interviews**

As mentioned earlier, Morse *et al.* (2002:4, 5) state that the validity and reliability of interviews are determined through the trustworthiness thereof. Therefore, see validity of semi-structured interviews (par.4.5.5.2).

4.4.5 Stage 6: prepare the research report

Chapter 5 presents a summary of the findings of the study, while Chapter 6 offers a number of conclusions regarding the results obtained. This chapter also sets out recommendations that can be used by universities, employees and undergraduates.

4.5 TRIANGULATION

With triangulation a researcher uses two different research methods, one qualitative and the other quantitative, in order to reach similar conclusions (Berndt & Petzer, 2011:50). The benefits of triangulation include increasing confidence in research data, creating innovative ways of understanding a phenomenon, revealing unique findings, challenging or integrating theories, and providing a clearer understanding of the problem (Thurmond, 2001:254). These benefits result from the diversity and quantity of data that can be used for analysis.

In this study, methodological triangulation was used and it involves the use of multiple qualitative and/or quantitative methods to study the data (Guion, Diehl & McDonald 2013:1). In-depth interviews and the skills tests were compared to determine similarity between the results. Some of the conclusions of the methods were the same which contributed to the establishment of validity. This method is popular and although it generally requires more resources and time to analyse the information from the different methods, it is valuable and reliable (Guion, Diehl & McDonald, 2013:1).

4.6 ETHICS

The researcher applied for an ethical number from the North-West-University through the ethical committee and was successful in obtaining the ethical number and that ensured the continuation of the study.

Ethical aspects that the researcher had to focus on were the identification of participants, the measurement of the aspects that the participants were exposed to and the handling of the research results (Burnes & Grove, 1997:195; Huysamen, 1993:184).

The researcher continuously aimed to be objective and reporting the data (quantitative and qualitative) just as it is. Due to possible bias of the researcher and the influence thereof on the research results, it was decided to involve various experts in the research.

The anonymity of participants was not possible in terms of data collection. The undergraduates had to provide their student numbers with regards to all research methods, because the researcher had to compare the results of the different skills. The interviews and observations were not anonymous, because the researcher and experts had personally executed the interviews and observations. The reporting of the data was anonymous. The participants were also assured that the data from the investigation will be treated confidentially.

4.7 SUMMARY

In this chapter the research methodology that was used in this study was discussed. Multi-methods research was used with qualitative and quantitative methods to answer the research questions. In this regard, several qualitative and quantitative methods were used. Linking to the quantitative part of the research three tests were used to measure the skills of the respondents. The quantitative data collected in this study was statistically analysed. With the qualitative part of the research, data were collected through document analysis, observations and semi-structured interviews.

Furthermore, the exploratory factor analysis was done to assure construct validity on the different items of the tests. Cronbach alpha coefficients were used to assess the internal consistency of the measurement of the instruments. Reliability of the observations was obtained through internal and external consistency. Internal consistency was obtained through the actual completion of the assessment rubric that focuses on the same aspects of the different participants. External consistency was obtained through the involvement of the expert to analyse the observations. The validity of the observations was strengthened through confidentiality, credibility and confirmation thereof. The validity and reliability of interviews are

determined through the trustworthiness thereof. To determine the trustworthiness of the data the credibility, transferability, consistency and confirmation of the data were described. The discussion of the chapter was closed with an overview of the aspects that was recognised in terms of the ethical considerations of the investigation.

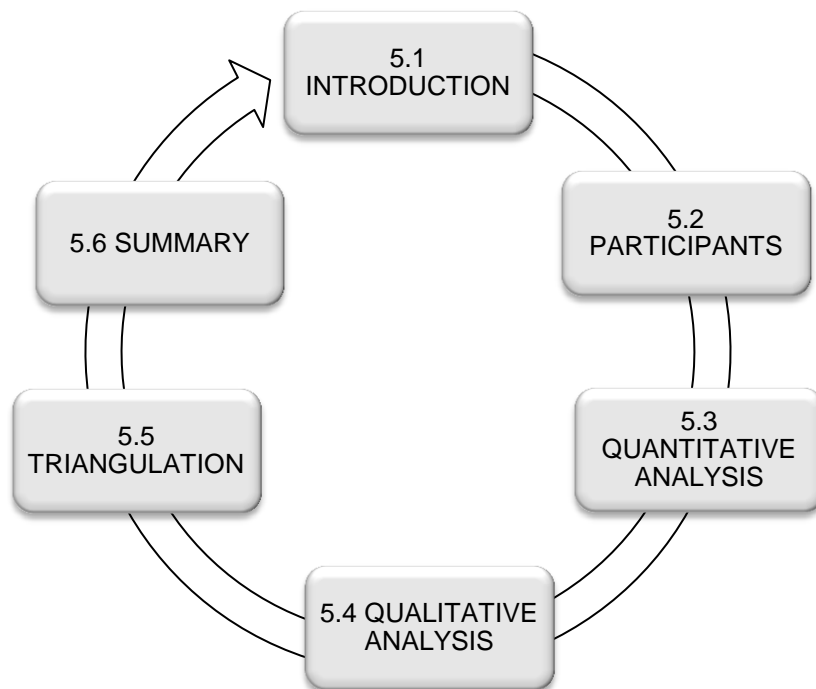
In conclusion, the research methodology has addressed important questions regarding the manner in which research for this study was conducted. It furthermore clarifies the reason for choosing these methods. Chapter 5 will present the results obtained from this research process.

CHAPTER 5: EMPIRICAL RESEARCH: PRESENTATION AND DISCUSSION OF FINDINGS AND RESULTS

5.1 INTRODUCTION

The previous chapter focused on the research methodology applicable to this study. This chapter will consist of the statistical analysis of the quantitative data by reporting, explaining and interpreting the empirical results and the narrative description of the qualitative data. The chapter will firstly focus on the participants (par. 5.2). Subsequently, the quantitative data analysis (par. 5.3) will be discussed, by including validity (par. 5.3.1) and reliability (par. 5.3.2) of the skills and the effect size and practical significance (par. 5.3.3). Thereafter the results of the qualitative data (par. 5.4) will be discussed by focusing on the document analysis (par. 5.4.1), observations (par. 5.4.2) and interviews (par. 5.4.3). Triangulation between qualitative and quantitative data will then be discussed (par. 5.5). Conclusions of the data will be provided throughout this chapter, while summaries of the qualitative and quantitative results will be given after every method has been discussed (Quantitative research par. 5.3. and Qualitative research par. 5.4). Figure 5.1 provides an abbreviated synopsis of Chapter 5 pertaining to the main sections that are to be discussed.

Figure 5.1: Chapter 5 abbreviated synopsis



5.2 PARTICIPANTS

The participants in the quantitative and qualitative research will be subsequently discussed.

5.2.1 Participants in the quantitative research

The participants in this study are all undergraduate business management students in their final year of study who were selected for their post graduate honours studies in the Marketing and Business Management program at the North-West University (Potchefstroom Campus) (N=45).

5.2.2 Participants in the qualitative research

All the participants (N=45) were included in the document analysis and observations while nine participants (N=9) were randomly selected.

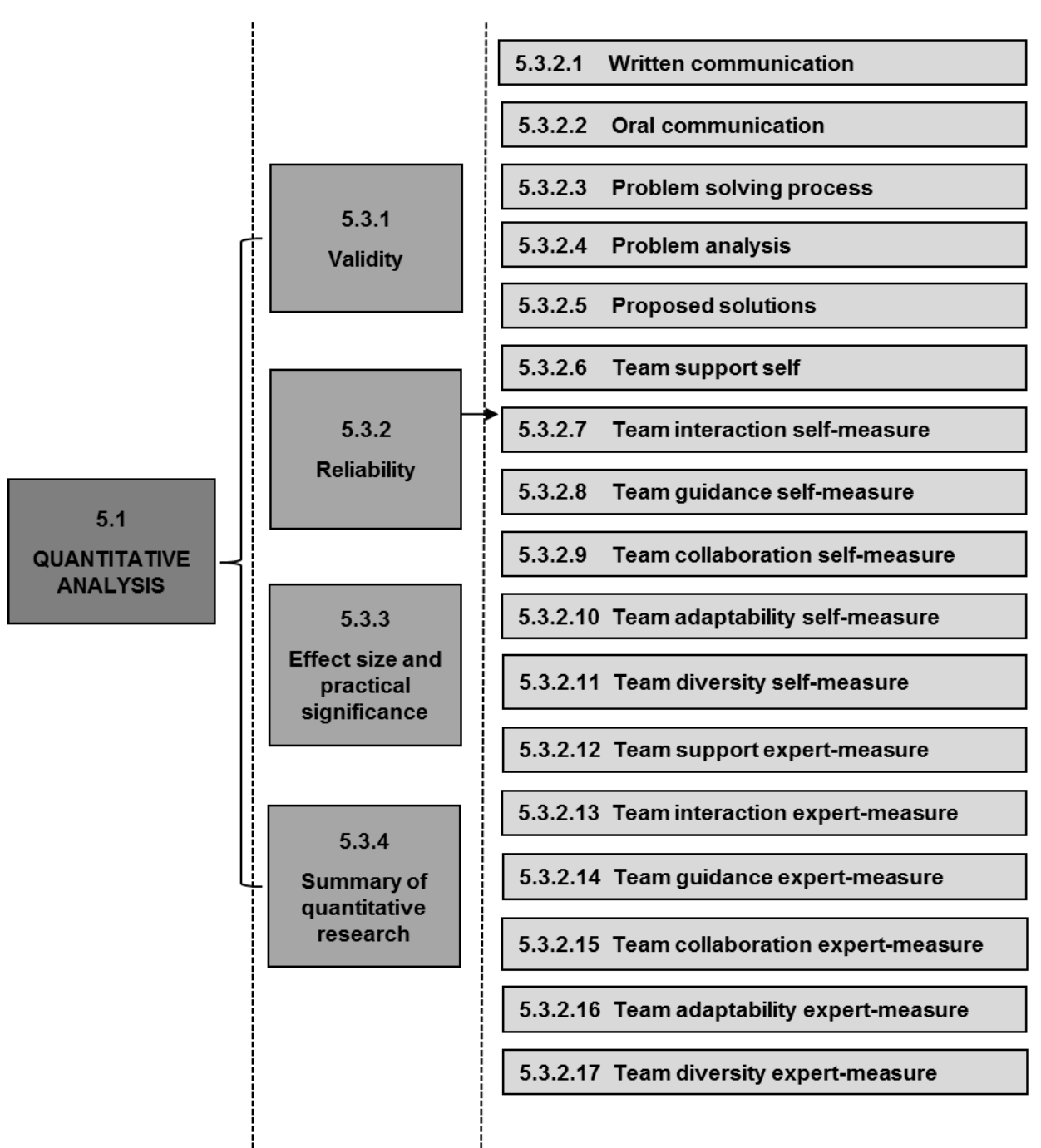
5.2.3 Assessing validity and reliability

In this section the validity and reliability and of the measurement scales used in this study were assessed by means of calculating Cronbach's alpha coefficients and conducting exploratory factor analysis (EFA) (see par.4.3.5.1).

5.3 QUANTITATIVE ANALYSIS

The figure below (5.2) gives a graphic illustration of the methods used in obtaining quantitative data. This illustration also serves as a summary of the discussion regarding the quantitative data.

Figure 5.2: Quantitative analysis layout



5.3.1 Validity

Exploratory factor analyses (EFA) were conducted as data reduction method as well as to confirm the factors and assess the validity of each of the scales measuring the different skills as measured by using the tests. Furthermore, the construct validity of the measurement scales is reported in Table 5.1.

Table 5.1 presents the results of the factor analysis, different skills with their corresponding Measure of Sample Adequacy (MSA), number of factors retained, percentage variance explained and the highest and lowest communality estimates. Eigenvalues, equal or larger than one, was used to indicate the number of factors retained.

Table 5.1: Summary of the results of exploratory factor analysis (EFA)

Respondents					
Factor	MSA	Number of factors retained	Percentage of variance explained	Communality	
				Highest	Lowest
Written communication	0.80	1	59.31	0.81	0.36
Oral communication	0.92	1	75.16	0.86	0.65
Problem solving	0.50	3	64.07	0.90	0.39
Teamwork	0.62	5	65.39	0.79	0.44

5.3.1.1 Written communication EFA

From the information in table 5.1, the results of the EFA conducted on the six statements measuring written communication realised an MSA of 0.80 which is acceptable, since it is above the cut-off point of 0.50. Furthermore, the communalities for the statements contained in the factor range between 0.81 and 0.36 and only one factor was subsequently confirmed, explaining 59.31% of the variance in the data.

5.3.1.2 Oral communication EFA

The results of the EFA in table 5.1 directed by the six statements measuring oral communication, realised an MSA of 0.92 which is satisfactory, since it is above the cut-off point of 0.50. Additionally, the communalities for the statements contained in the factor range between 0.86 and 0.65 and only one factor was subsequently confirmed, explaining 75.16% of the variance.

5.3.1.3 Problem-solving EFA

The results of the EFA in table 5.1 directed the seven questions measuring problem solving, realised an MSA of 0.50 which is reasonable, since it is equal to the cut-off point of 0.50. Additionally, the communalities for the questions contained in the factor range between 0.90

and 0.39 and three factors were subsequently confirmed, explaining 64.07% of the variance. Henceforth, the three factors were analysed by using the rotated factor pattern. This pattern is used to create standardised regression coefficients which combined the related questions into the three constructs. Table 5.2 shows the coefficients. From the table it is evident that Questions 1, 5, 6 and 7 were combined to form the problem solving process construct, whereas questions 2 and 3 formed the problem analysis construct and question 4 was identified as the proposed solutions construct.

Table 5.2: Rotated factor pattern for problem solving*

Constructs	Factor 1	Factor 2	Factor 3
Problem solving process			
Q1	0.606	•	•
Q5	0.524	•	•
Q6	0.745	•	•
Q7	0.754	•	•
Problem analysis			
Q2	•	0.810	•
Q3	•	0.843	•
Proposed solutions			
Q4	•	•	0.943

5.3.1.4 Teamwork EFA

The results of the EFA in table 5.3 directed by the fifteen statements measuring teamwork, realised an MSA of 0.62 which is adequate, since it is above the cut-off point of 0.50. Additionally, the communalities for the statements contained in the factor range between 0.44 and 0.79 and five factors were subsequently confirmed, explaining 65.39% of the variance.

Hereafter, the five factors were analysed by using the rotated factor pattern. This pattern is used to create standardised regression coefficients which combined the related questions into the five constructs. Table 5.3 shows the coefficients. From this table it is evident that respecting, helping and participating were combined to form the team support construct. Persuading, evaluating and team communication formed the team interaction construct. Individual, leadership and responsibility combined to form the team guidance construct. Next, creativity, listening and conflict formed the team collaboration construct and finally adaptability and diversity formed the team flexibility construct.

Table 5.3: Rotated factor pattern for teamwork

Constructs	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Team support					
Respecting	0.845	•	•	•	•
Helping	0.819	•	•	•	•
Participating	0.451	•	•	•	•
Team interaction					
Persuading	•	0.778	•	•	•
Evaluating	•	0.731	•	•	•
Team communication	•	0.562	•	•	•
Team guidance					
Individual	•	•	0.783	•	•
Leadership	•	•	0.735	•	•
Responsibility	•	•	0.517	•	•
Team collaboration					
Creativity	•	•	•	0.841	•
Listening	•	•	•	0.532	•
Conflict	•	•	•	0.525	•
Questioning	•	•	•	0.449	•
Team flexibility	•	•	•	•	
Adaptability	•	•	•	•	0.720
Diversity	•	•	•	•	0.633

5.3.2 Reliability

Cronbach's alpha coefficients were calculated in order to determine internal consistency and reliability of all scales measuring the skills. Furthermore, the reliability of all the measurement scales used, are reported in Table 5.4.

Table 5.4: Cronbach's alpha values

Construct	Cronbach's alpha coefficient
Written communication	0.855
Oral communication	0.929
Problem solving process	0.554
Problem analysis	0.627
Proposed solutions	*
Team support self-measure	0.672
Team interaction self-measure	0.591
Team guidance self-measure	0.662
Team collaboration self-measure	0.530
Team flexibility self-measure	0.408
Team support expert-measure	0.834
Team interaction expert-measure	0.680
Team guidance expert-measure	0.571
Team collaboration expert-measure	0.773
Team flexibility expert-measure	0.526

* One item statement does not have Cronbachs' Alpha value

It is evident from table 5.4 that all constructs (except team flexibility self-measure) are above 0.5, concluding reliability for all constructs above 0.5. Therefore the team flexibility construct from the self-measurement could not be used as an exploratory factor and the statements forming this construct will be discussed separately. Therefore the team adaptability and team diversity statements from the self-measurement will be analysed separately (see par. 5.3.8.5 and 5.3.8.6).

Descriptive statistical techniques such as means and standard deviations were determined for each of the statements constituting the scales measuring the different skills. The reliability of a test refers to the consistency of scores obtained by the same persons when they are re-examined with the same test on different occasions, or with different sets of equivalent items, or under other variable examining conditions.

A four-point Likert scale (table 5.5) was used to indicate the extent to which respondents were competent in the selected skill. In a four-point Likert scale, there is no middle point and the respondents are skilled (level 4), fairly skilled (level 3), show substandard skills (level 2) or not-skilled (level 1).

Table 5.5: Four-point Likert scale

1	Not skilled	The student shows no competency in the demonstration of this skill
2	Substandard	The student shows competency equal to or lower than first-year University Level (SAQA Level 5)
3	Fairly skilled	The student shows competency equal to second-year university level (SAQA Level 6)
4	Skilled	The student shows competency in demonstrating the skill (SAQA Level 7)

In the discussion of the results the mean scores will be reported on. Since the Likert-scale has specific ratings at levels 1 to 4, the following ranges of mean score results within these ratings will be used as guidelines:

- Not skilled: Mean score of 1 – 1.49
- Substandard: Mean score of 1.5 – 2.49
- Fairly skilled: Mean score of 2.5 – 3.49
- Skilled: Mean score of 3.5 – 4

In the following paragraphs (par. 5.3.3 – 5.3.8) the results from the data analysis relevant to the employability skills which were measured quantitatively will be discussed (Communication, Problem solving and Teamwork).

5.3.3 Communication: written communication

Written communication contained six individual constructs to measure the respondents' written communication skills. Table 5.6 depicts the descriptive statistics (means and standard deviations) obtained for the six individual statements. From the information in this table, the respondents have the highest skill in the tone and style of written communication (mean=2.67). This indicates that they are fairly skilled in the tone of the message, when hearing or reading the written assignment. Respondents therefore show a competency equal to or lower than second-year university level. The lowest skill in written communication is technical (mean=1.67). The technical item consists of the written assignment that looks and sounds like a business

assignment, which is formal and applicable in business terms. The respondents show a substandard competency in the demonstration of this skill.

Table 5.6: Written communication skills of respondents

Construct		N = 45	
		Mean	Standard deviation
Written communication	Analysis	2.40	0.809
	Conceptual clarity	2.40	0.687
	Structure development	2.42	0.812
	Tone and style	2.67	1.000
	Technical	1.67	0.977
	Grammar	2.07	0.618
	Overall scores	2.27	0.631

5.3.4 Communication: oral communication

Oral communication also contained six individual constructs to measure the respondents' oral communication skill. Table 5.7 depicts the descriptive statistics (means and standard deviations) obtained for the six individual statements. Based on the information in this table, the respondents have the highest skill in vocabulary (mean=3.16). This item entails the appropriateness of the words and concepts they use during communication, language choices and the effectiveness of what is said. Vocabulary also entails the respondents' ability to speak in a business-like manner. This value shows that respondents are fairly skilled and they demonstrate this competency equal to second-year university level. The lowest skill in oral communication is managing conflict (mean=1.84). Since this value indicates that the respondents' ability to manage conflict is substandard, they are not able to sufficiently deal with conflict in a positive manner, they do not listen to what others say, they do interrupt others during communication and they do not avoid conflict.

Table 5.7: Oral communication skills of respondents

Construct		N = 45	
		Mean	Standard deviation
Oral communication	Vocabulary	3.16	0.638
	Listening skills	3.02	0.621
	Oral delivery	2.62	0.886
	Nonverbal and verbal correlation	2.40	0.837
	Delivers message convincing	2.13	0.894
	Managing conflict	1.84	0.673
	Overall scores	2.53	0.659

5.3.5 Problem solving: the problem solving process

The problem solving process contained four questions to measure the respondents' ability to follow the problem solving process. Table 5.8 depicts the descriptive statistics (means and standard deviations) obtained for four questions. Based on the information in this table, it is evident that respondents have almost equal ratings for this skill; however, the highest skill is in question 6 (mean=2.84). This question asked respondents to generate alternative solutions for a problem. Based on the mean, solutions are given, but are not workable and do not relate to the problem. The lowest skill in the problem solving process is question 7 (mean=2.07), where respondents were expected to explain how they would implement the solution chosen and describe the influence on the business' resources (production factors). Respondents give an explanation, but it does not relate to their solution or the respondent does not describe the influence on the business' resources. Their skill level is therefore substandard and the respondent shows competency equal to or lower than first-year university level. See also the triangulation with the qualitative document analysis (par. 5.4.1.1 and par. 5.4.1.2).

Table 5.8: Problem solving process of respondents

Construct		N = 45	
		Mean	Standard deviation
Problem solving process	Question 1	2.82	0.535
	Question 5	2.69	0.792
	Question 6	2.84	0.767
	Question 7	2.07	0.539
	Overall scores	2.61	0.438

5.3.6 Problem solving: problem analysis

The problem analysis contained two questions to measure the respondents' ability to perform problem analysis. Table 5.9 depicts the descriptive statistics (means and standard deviations) obtained for the two questions. Based on the information in this table, it is evident that respondents have a higher mean for question 2 (mean=3.18), where they had to choose the most important problem and give reasons for their decision. Based on the mean, the respondents identified the most important problem, but do not explain why it needs to be solved or they provide an explanation that does not relate to the problem. The respondents did not answer both parts of the question. They are accordingly fairly skilled and show competency equal to second-year university level. The lower value is question 3 (mean=2.56), where respondents are expected to define a problem statement. Their skill level is substandard and the respondents show competency equal to or lower than first-year university level. Triangulation is found in par. 5.4.1.2 with the qualitative document analysis.

Table 5.9: Problem analysis of respondents

Construct		N = 45	
		Mean	Standard deviation
Problem analysis	Question 2	3.18	0.886
	Question 3	2.56	0.813
	Overall scores	2.87	0.726

5.3.7 Problem solving: proposed solutions

The problem analysis contained one question to measure the respondents' ability to give proposed solutions. Table 5.10 depicts the descriptive statistics (means and standard deviations) obtained for the question. Based on the information in this table, the respondents received a mean of 3.31 for question 4. This question expected of respondents to generate alternative solutions to the problem. The respondents showed a competency level of fairly skilled, which indicates that they perform equal to second-year university level. This performance is supported by the qualitative document analysis in par. 5.4.1.2.

Table 5.10: Proposed solutions of respondents

Construct		N = 45	
		Mean	Standard deviation
Proposed Solutions	Question 4	3.31	0.668
	Overall scores	3.31	0.668

5.3.8 Teamwork

The respondents' skills to function in teams were measured by means of self-evaluation as well as expert evaluation. With the self-evaluation the respondents evaluated their own abilities to function in teams and with the expert evaluation an expert in the field of teamwork evaluated the respondents' teamwork functioning. In both evaluations the same criteria were used to enable the researcher to draw comparisons between these data sets. The discussion of this employability skill will be conducted according to the constructs outlined in par. 5.3.1.4., which include team support (par. 5.3.8.1), team interaction (par. 5.3.8.1), team guidance (par. 5.3.8.1), team collaboration (par. 5.3.8.1) and team flexibility (par. 5.3.8.1).

5.3.8.1 Teamwork: team support

Teamwork support focuses on the respondents' ability to respect the other team member, helping them with team activities and their participation in the team as a whole.

5.3.8.1.1 Respondents' self-evaluation

In this instance, team support is measured by the respondents themselves to determine their perception of their own skill levels. Table 5.11 depicts the descriptive statistics (means and standard deviations) obtained for the three items of this construct. Based on the information in this table, it is evident that the respondents measured high in all items of this construct with the highest measure being respecting (mean=3.78) and the lowest being helping (mean=3.58). Based on these values the respondents perceive that they respect all the opinions in their team and praise other members' ideas and their thinking. According to their own perception they are skilled and are sufficiently competent with regard to team support.

Table 5.11: Team support of respondents by measuring themselves

Construct		N = 45	
		Mean	Standard deviation
Team support self-measure	Respecting	3.78	0.420
	Helping	3.58	0.621
	Participating	3.67	0.477
	Overall scores	3.67	0.399

5.3.8.1.2 Expert evaluation

In this regard team support was measured by an expert in the field of teamwork. Table 5.12 depicts the descriptive statistics (means and standard deviations) obtained for the three items of this construct. Based on the information in this table, the respondents measured the highest in helping (mean=3.11) and the lowest in respecting (mean=2.67). According to the expert's measure the respondents are fairly skilled in helping their team members with struggles and problems as well as with respecting all the opinions in their team which entails praise given for good ideas. In this regard they show a skill level of equal to second-year university level.

5.3.8.2 Teamwork: team interaction

Teamwork interaction focuses on the respondents' ability to persuade team members of their ideas, evaluate the value of alternatives and solutions and affectivity of communication between the members.

Table 5.12: Team support of respondents by expert measurement

Construct		N = 45	
		Mean	Standard deviation
Team support expert-measure	Respecting	2.67	0.674
	Helping	3.11	0.745
	Participating	3.00	0.826
	Overall scores	2.93	0.651

5.3.8.2.1 Respondents' self-evaluation

In this instance, team interaction is measured by the respondents themselves to determine their perception of their own skill levels. Table 5.13 depicts the descriptive statistics (means and standard deviations) obtained for the three items of this construct. Based on the information in this table, it is evident that the respondents measured high in communication (mean=3.71). Respondents perceive themselves as being skilled communicators who communicate effectively with their team members when sharing their ideas and thinking with the team. The lowest construct is persuading (mean=3.40), where respondents exchange their ideas, defend their own ideas and explain their ideas to the team. In this regard they perceived themselves as being fairly skilled.

Table 5.13: Team interaction of respondents by measuring themselves

Construct		N = 45	
		Mean	Standard deviation
Team interaction self-measure	Persuading	3.40	0.688
	Evaluating	3.44	0.623
	Team communication	3.71	0.506
	Overall scores	3.52	0.453

5.3.8.2.2 Expert evaluation

In this regard team interaction was measured by an expert in the field of teamwork. Table 5.14 depicts the descriptive statistics (means and standard deviations) obtained for the three items of

this constructs. Based on the information in this table, the respondents measured the highest in team communication (mean=3.33) and they measure the same in persuading and evaluating. Where the respondents perceived themselves as being skilled communicators (par. 5.3.8.2.1) the expert measured them as being fairly skilled and thus show a skill level of equal to second-year university level.

With regard to the other items of this construct, they are also fairly skilled in exchanging their ideas, defending their own ideas and explaining their ideas to the team (persuading) as well as evaluating the team performance and quality expectance (evaluating).

Table 5.14: Team interaction of respondents by expert measurement

Construct		N = 45	
		Mean	Standard deviation
Team interaction expert-measure	Persuading	3.11	0.573
	Evaluating	3.11	0.573
	Team communication	3.33	0.477
	Overall scores	3.19	0.424

5.3.8.3 Teamwork: team guidance

Teamwork guidance focuses on the respondents' ability to contribute individually, to take leadership and to take responsibility for their actions.

5.3.8.3.1 Respondents' self-evaluation

In this instance, team guidance is measured by respondents themselves to determine their perception of their own skill levels. Table 5.15 depicts the descriptive statistics (means and standard deviations) obtained for the three items of this construct. Based on the information in this table, it is evident that respondents measured high in responsibility (mean=3.78). Respondents accept responsibility within their team and work hard to do their best with the task. The lowest construct is leadership (mean=3.33), where respondents keep the team on track and foster a constructive team climate. In this regard they perceived themselves as fairly skilled.

Table 5.15: Team guidance of respondents by measuring themselves

Construct		N = 45	
		Mean	Standard deviation
Team guidance self-measure	Individual	3.56	0.503
	Leadership	3.33	0.640
	Responsibility	3.78	0.420
	Overall scores	3.56	0.408

5.3.8.3.2 Expert evaluation

In this regard team guidance was measured by an expert in the field of teamwork. Table 5.16 depicts the descriptive statistics (means and standard deviations) obtained for the three items of this constructs. Based on the information in this table, it is evident that respondents have equal means for all three constructs (mean=2.89). Respondents accept responsibility within their team and work hard to do their best with the task. The leadership construct is where respondents keep the team on track and foster a constructive team climate. Individual entails that respondents contribute in the team. They have relevant knowledge, skills and abilities to offer in the team. Where the respondents perceived themselves as being fairly skilled (par. 5.3.8.3.1) the expert measured them as being substandard and thus show a skill level of equal to or lower than first-year university level.

Table 5.16: Team guidance of respondents by expert measurement

Construct		N = 45	
		Mean	Standard deviation
Team guidance expert-measure	Mean Individual	2.89	0.745
	Mean Leadership	2.89	0.318
	Mean Responsibility	2.89	0.573
	Overall scores	2.89	0.420

5.3.8.4 Teamwork: team collaboration

Team collaboration focuses on the respondents' ability to be creative, to listen to what is said in the team, to avoid conflict when it arises and to ask questions to understand the goal of the project and to explore further thinking.

5.3.8.4.1 Respondents' self-evaluation

In this instance, team collaboration is measured by the respondents themselves to determine their perception of their own skill levels. Table 5.17 depicts the descriptive statistics (means and standard deviations) obtained for the four items of this construct. Based on the information in this table, it is evident that the respondents measured high in listening (mean=3.56). Respondents listen to everything said in their team and use ideas to help develop new ones (they do not piggy-back). The lowest construct is questioning (mean=3.24), where respondents show the ability to ask questions in their team to understand the goal of the project and to explore further thinking. In this regard they perceived themselves as being fairly skilled.

Table 5.17: Team collaboration of respondents by measuring themselves

Construct		N = 45	
		Mean	Standard deviation
Team collaboration self-measure	Creativity	3.44	0.659
	Listening	3.56	0.586
	Conflict	3.53	0.548
	Questioning	3.24	0.609
	Overall scores	3.44	0.388

5.3.8.4.2 Expert evaluation

In this regard team collaboration was measured by an expert in the field of teamwork. Table 5.18 depicts the descriptive statistics (means and standard deviations) obtained for the four items of this construct. Based on the information in this table, it is evident that respondents have the highest mean for conflict and questioning (mean=3.11). In terms of conflict, respondents attempt to avoid conflict in the team and when conflict arises, they respond positively to conflict. With questioning, respondents show the ability to ask questions in their team, to understand the goal of the project and to explore further thinking. Where the respondents perceived themselves

as skilled (par. 5.3.8.4.1) the expert measured them as being fairly skilled, they show a skill level of equal to second-year university level.

Table 5.18: Team collaboration of respondents by expert measurement

Construct		N = 45	
		Mean	Standard deviation
Team collaboration expert-measure	Mean Creativity	3.00	0.826
	Mean Listening	2.89	0.573
	Mean Conflict	3.11	0.318
	Mean Questioning	3.11	0.745
	Overall scores	3.03	0.498

5.3.8.5 Teamwork: team adaptability

Team adaptability focuses on the respondents' ability to adapt to team choices and team work ways.

5.3.8.5.1 Respondents' self-evaluation

In this instance, team adaptability is measured by the respondents themselves to determine their perception of their own skill levels. Table 5.19 depicts the descriptive statistics (means and standard deviations) obtained for the one item of this construct. Based on the information in this table, it is evident that respondents have a mean of 3.58 for adaptability. Respondents adapt to team choices and team work ways. Respondents are able to work with the team. In this regard they perceived themselves as being skilled.

Table 5.19: Team adaptability of respondents by measuring themselves

Construct		N = 45	
		Mean	Standard deviation
	Adaptability	3.58	0.621

5.3.8.5.2 Expert evaluation

In this regard team adaptability was measured by an expert in the field of teamwork. Table 5.20 depicts the descriptive statistics (means and standard deviations) obtained for the three items of this constructs. Based on the information in this table, it is evident that respondents have a mean of 3.22 for adaptability. Respondents adapt to team choices and team work ways. Respondents are able to work with the team. Where the respondents perceived themselves as being skilled adaptors (par. 5.3.8.5.1) the expert measured them as being fairly skilled and thus show a skill level of equal to second-year university level.

Table 5.20: Team adaptability of respondents by expert measurement

Construct		N = 45	
		Mean	Standard deviation
	Mean Adaptability	3.22	0.420

5.3.8.6 Teamwork: team diversity

Team diversity focuses on the respondents' ability to use a diverse environment to build a strong team and that the team members can work with different individuals.

5.3.8.6.1 Respondents' self-evaluation

In this instance, team diversity is measured by the respondents themselves to determine their perception of their own skill levels. Table 5.21 depicts the descriptive statistics (means and standard deviations) obtained for the one item of this construct. Based on the information in this table, it is evident that respondents have a mean of 3.47 for diversity. Respondents use a diverse environment to build a strong team and can work with different individuals. In this regard they perceived themselves as being fairly skilled.

Table 5.21: Team diversity of respondents by measuring themselves

Construct		N = 45	
		Mean	Standard deviation
	Diversity	3.47	0.548

5.3.8.6.2 Expert evaluation

In this regard team diversity was measured by an expert in the field of teamwork. Table 5.22 depicts the descriptive statistics (means and standard deviations) obtained for the three items of this constructs. Based on the information in this table, it is evident that respondents have a mean of 3.22 for diversity. Respondents use a diverse environment to build a strong team and can work with different individuals. Where the respondents perceived themselves as being fairly skilled in working with diversity (par. 5.3.8.6.1) the expert measured them accordingly being fairly skilled, (although having a lower mean) with a skill level of equal to second-year university level.

Table 5.22: Team diversity of respondents by expert measurement

Construct		N = 45	
		Mean	Standard deviation
	Mean Diversity	3.22	0.420

5.3.8.7 Teamwork: Effect size and practical significance

In order to assess whether practically significant differences exist between the means of two or more groups of respondents, where the respondents' self-evaluation means are compared with the means of the expert's evaluation, effect sizes were calculated. An effect size indicates whether a statistically significant difference between the means of two or more groups is also practically significant. Practical significance was determined by means of effect sizes and in this study effect sizes with medium effect ($d \geq 0.5$) are reported. Inferential statistical techniques namely independent samples t-tests were used to draw comparisons between two groups. With respect to the actual results being reported, only instances where a medium (at 0.5) or large (at 0.8 or larger) effect size was uncovered are reported.

Table 5.23: Effect sizes for difference between self-measured teamwork skill and expert measure of teamwork skill

Construct	Mean self	Standard deviation self	Mean expert	Standard deviation expert	Mean difference	Standard deviation of difference	p-value (When random sampling is assumed)	D-value
Team support	3.67	0.40	2.93	0.65	0.75	0.70	<0.0001*	1.15 ^{▲▲}
Team interaction	3.52	0.45	3.19	0.42	0.33	0.55	0.002*	0.73 [▲]
Team guidance	3.56	0.41	2.89	0.42	0.67	0.51	<0.0001*	1.21 ^{▲▲}
Team collaboration	3.44	0.39	3.03	0.50	0.42	0.49	<0.0001*	0.84 ^{▲▲}
Adaptability	3.58	0.62	3.22	0.42	0.36	0.77	0.0035*	0.58 [▲]
Diversity	3.47	0.55	3.22	0.42	0.24	0.71	0.0261	0.44

* Statistically significant at 0.05 level according to t-test results for dependant groups

▲ Medium effect in practice

▲▲ Large and also practical significant effect in practice

Table 5.23 shows that the p-value of all values is < 0.05 and indicating a statistically significant difference between the self-evaluation teamwork skill and the expert's evaluation of the teamwork skill. The mean values for the self-evaluation values are all less than the expert evaluation of the teamwork skill, which means that the participants do classify themselves better and have a perception of a higher skill level than what they actually have.

Furthermore the d-values range from being practically significant to no significance. For diversity a small effect is shown. Team interaction and adaptability shows a d-value higher than 0.5 which declare a medium effect which is noticeable with the naked eye. Team support, team guidance and team collaboration have a large and practical significance.

Table 5.23 also shows the p-values for completeness, but these values are not used to make conclusions in the research study.

Overall, it is clear that a significant difference exists between the perception of the participants regarding their teamwork skills and their skills as evaluated by an expert.

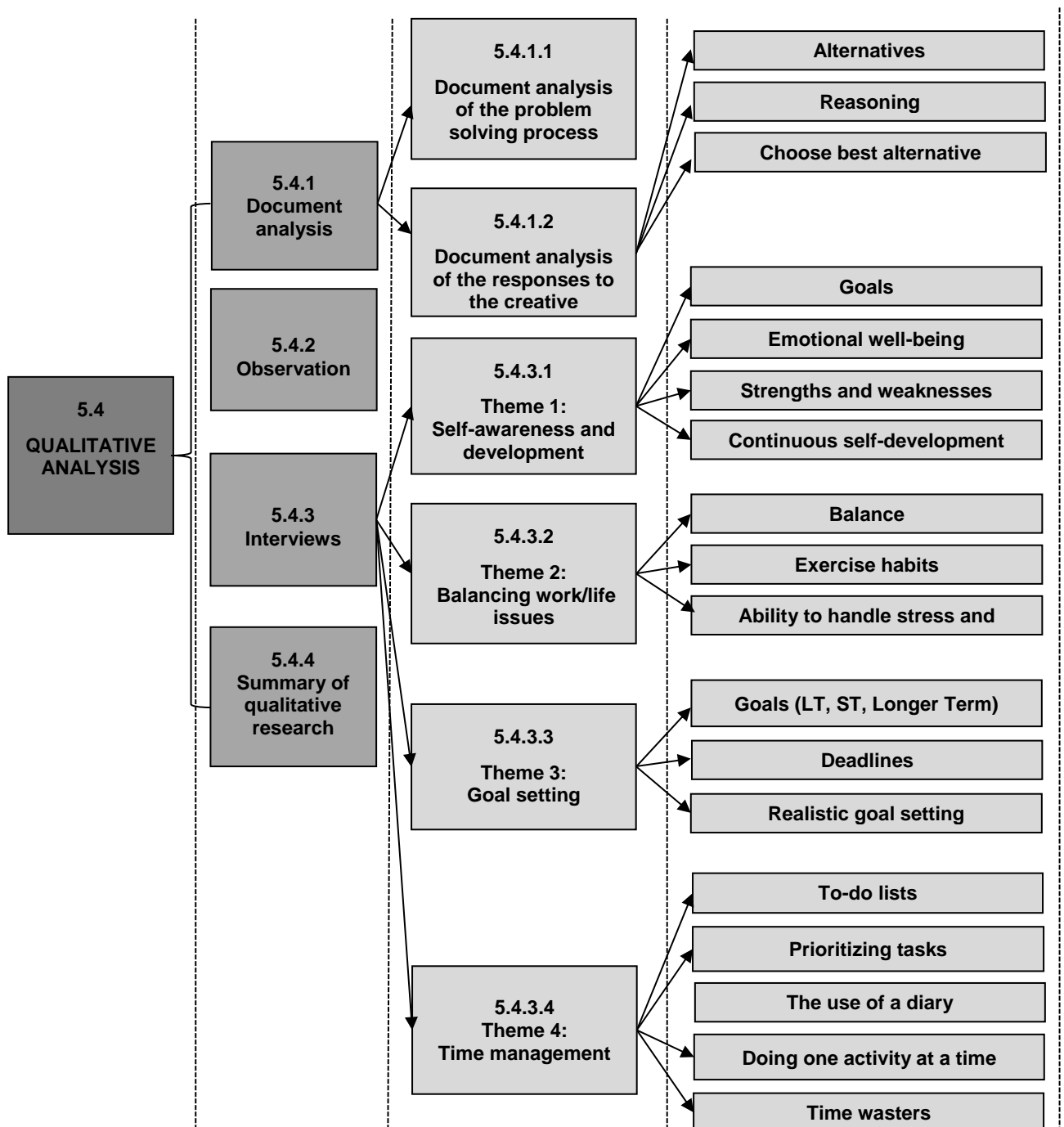
5.3.9 Summary of quantitative research

The quantitative research started with an exploratory factor analysis to determine the validity of the study (par. 5.3.1). Thereafter, Cronbach alpha values were used to determine the reliability of the study (par. 5.3.2). Furthermore, the different skills results for the quantitative analysis were shown. It started with written communication (par. 5.3.3), followed by oral communication (par. 5.3.4), the problem solving process (par. 5.3.5-5.3.7) and teamwork (par. 5.3.8). The final results show the effect sizes which were used to show the difference between the self-measured teamwork skill and the expert's evaluation of the teamwork skill (par. 5.3.8.1-5.3.8.6).

5.4 QUALITATIVE ANALYSIS

The figure below (5.3) gives a graphic illustration of the methods used in obtaining qualitative data. This illustration also serves as a summary of the discussion regarding the qualitative data.

Figure 5.3: Qualitative analysis layout



5.4.1 Document analysis

Qualitative data with regards to the document analysis where obtained by an:

- Analysis of the participants' problem solving skills determined by the problem solving process in Section A (par. 5.4.1.1)

- Analysis of the problem solving skills by evaluating the responses of the participants in the creative problem of Section C (par. 5.4.1.2)

5.4.1.1 Document analysis: Developing a problem solving process

In this section of the document analysis the aim was to determine whether the participants were able to correctly piece together the different steps of the problem solving process. Various random options pertaining to problem solving were given and they had to decide and choose which steps they would include into the process and which ones they would exclude. From literature (par. 3.3.2), the correct problem solving process entails five steps which include:

- Step 1: Define and structure the problem.
- Step 2: Generate alternative solutions.
- Step 3: Evaluate and select an alternative.
- Step 4: Implement the solution.
- Step 5: Learn and seek feedback.

None of the participants was able to correctly identify the five steps of the process or the correct order in which these steps should be executed. Although most of the participants developed a progressive problem solving process, they arranged the order of the steps incorrectly, included non-applicable steps and in some instances even added more steps to the process. The participants' efforts in this regard are therefore indicative of their inability to develop a general process to be used to solve problems.

5.4.1.2 Document analysis: Solving a creative problem

With the creative problem the participants were expected to demonstrate their problem solving skills. The aim of this problem was not to determine whether the participants provided a correct or incorrect answer, but rather their ability to use the problem solving process to solve the problem, their ability to provide alternative solutions and their reasoning.

- **Using the problem solving process**

Although most of the participants provided a problem solving process in section A of the test, most of them did not use this process (despite being correct or incorrect) in section C. Most of the participants only provided a possible solution to the problem without following a constructive process that indicates their reasoning for deciding on the solution. It was also evident that the participants' notion to provide only a solution without various alternatives is an indication of their inability to anticipate the possible effects from their decision or to motivate why their solution is workable. Their efforts in this regard are indicative of the inability to practically apply the problem solving process when solving problems as well as a tendency to solve problems hastily.

- **Providing alternatives**

Although some participants provided alternatives, most only provided one alternative which they also used as the final solution to the problem. Review of these alternatives indicated that most were straightforward and logic; however, some creativity were absent. Since the question clearly stated that the respondents should consider several alternatives, their answers in this question are indicative of their lack in following the guidelines or reading the question correctly.

- **Reasoning**

None of the respondents provided any reasoning behind their chosen alternatives or evaluated their alternatives in terms of its strengths and weaknesses. Since they lacked in providing any reasoning it is not possible to determine their motivation for choosing the solutions they provided.

5.4.2 Observation

Observations were conducted to determine participants' ability to communicate in their team. These observations were performed by an expert in the field of communication to ensure objectivity, reliability and expert analysis. The aim of the observations was to determine the barriers of effective oral communication between the participants while they were working in teams. The expert recorded all her finding on observation sheets which were then analysed to identify the themes pertaining to oral communication as well as the barriers of effective oral communication linked to each of them.

From the observation sheets several barriers to effective communication were identified. These barriers are summarised in table 5.24 below.

Table 5.24: Barriers to effective communication

Theme	Barriers
Verbal barriers	The participants have the tendency to: <ul style="list-style-type: none"> • Talk only to individuals and not the group • Mutter • Speak softly, not convincing; non-verbal; with disempowered note
Non-verbal barriers	The participants have the tendency to: <ul style="list-style-type: none"> • Show poor impressions • Communicate with their hands in front of mouth and face • Use irritating mechanics with hand • SMS on phone • Use little eye contact • Chew gum; point with pen
Emotional barriers	The participants have the tendency to: <ul style="list-style-type: none"> • Be insecure • Be negative and unsure • Form cliques (especially in terms of men and women) • Be shy and reserved
Arguments	The participants have the tendency to: <ul style="list-style-type: none"> • Provide weak arguments • Use powerless language • Piggy-back • Interrupt others while they speak
Attitude	The participants have the tendency to: <ul style="list-style-type: none"> • Be unprofessional • Be offensive • Show negative body language • Not take part in discussions • Show poor and awkward posture

These barriers are indicative of the participants' lack of effective oral communication skills. This also triangulates with the quantitative oral communication results which found that the participants showed fairly skilled oral communication (par. 5.3.4).

5.4.3 Interviews

The following qualitative data analysis was based on semi-structured interviews. The purpose of the interviews was to determine the participants' self-management skills. With the consent of the participants all the interviews were recorded for later transcription and analysis. Based on the transcribed text, four (4) themes were identified which were further analysed. The discussion of

the themes is done in par. 5.4.3.1 – 5.4.3.4. Some of the interviewees' direct quotes are presented in tables to support the discussions. Although the interviews were conducted in Afrikaans the direct quotes in the discussion below will be presented in English. The Afrikaans quotes are presented in appendix H for comparative purposes.

5.4.3.1 Theme 1: Self-awareness and development

In the following section the participants' feedback with regard to their opinion of self-awareness and development are presented. The various sub-themes that emerged from the feedback will be discussed in the following paragraphs. These sub-themes include goals, emotional well-being, strengths and weaknesses and continuous self-development.

- **Goals**

In table 5.25 the direct words of the participants are provided as evidence of their opinions regarding the goals they set for themselves. Most of the participants indicated that in general they do not have set future life-goals for themselves (1). Regarding their career goals, most of the participants indicated that they wanted a job when they graduate. In some instances they were specific regarding their future prospects, such as opening their own business, wanting to become a farmer or working for a company. Overall they were unsure and unspecific regarding their career prospects and indicated that they did not know what they were going to do after they've graduated or which industry they intend on entering (2). The participants' uncertainty regarding their future prospects is concerning, since their studies should empower them to focus on a specific job, industry or working environment. Regarding their life goals, the participants indicated they are motivated to enhance their personal lives or broaden their environments. Some participants indicated that they are getting married after they graduate, while others are either entering the South African working environment or travelling overseas (3).

Table 5.25: Participants' responses regarding their goals

Theme	Number	Participants' direct words
Setting of goals	(1)	<ul style="list-style-type: none"> • ...I would not say that I have goals for my life or future. • I do not really have life goals.
Career goals	(2)	<ul style="list-style-type: none"> • ...I want to open my own business. • ...I am going to work for my father. • ...I want to be a farmer when I finish my studies. • ...I want to be in a manager's position.
Life goals	(3)	<ul style="list-style-type: none"> • I must be a better friend. • I want to tour, I do not want to sit in an office... I just want to have fun.

- **Emotional well-being**

In table 5.26 the direct words of the participants are provided as evidence of their opinions regarding their emotional well-being. Most of the participants indicated that they communicate truthfully and openly about their emotions to others. Although their responses in this regard might be personality based, most indicated they would resolve conflict immediately, truthfully and openly (1). The participants also indicated that they understand their emotions and they are aware of the situations which have an emotional influence on them (2). Despite the diverse feedback from participants on how they react to criticism most participants indicated that they will firstly determine the source and nature of the criticism and then decide on their actions. Most participants indicated that their reaction to criticism is not necessarily determined by the source or nature of the criticism, but rather the manner in which the criticism is conveyed. They did, however, indicate that they are much more sensitive to critique in the workplace, where they have to perform and be productive (3).

Table 5.26: Participants' responses regarding their emotional well-being

Theme	Number	Participants' direct words
Speak truthfully and openly	(1)	<ul style="list-style-type: none"> • ...if conflict arises, we consult it immediately... we compromise each other. • ...all of us get along in working context, but I struggle to resolve conflict. • I would raise my opinion, but I would rather keep the peace.
Understand emotions	(2)	<ul style="list-style-type: none"> • ... I understand my emotions. • I am definitely aware of my emotions.
React to criticism	(3)	<ul style="list-style-type: none"> • ...I have learned to handle critique, because I could not in the past. • ...It is not what you say, but how you say it. • ...depends who it is and how they say it... apologize, resolve the problem as quick as possible. • ...not very good on critique... I am very sensitive.

- **Strengths and weaknesses**

In table 5.27 the direct words of the participants are provided as evidence of their opinions regarding their strengths and weaknesses. The participants indicated that the way they do their work depend on their state of mind. Most of the participants indicated that in general they just want to get the task done, especially if it is beyond their level of interest. Most of the participants indicated that their strengths include the ability to work at a fast-pace and they do not waste time on something that might be useless (1). They perceive the importance of the work and getting the task done as a priority over and above the proactive gaining of knowledge and skills development. Regarding their strengths and weaknesses, the participants further emphasized the importance of assessing their own strengths and weaknesses. They also expressed the need for people to comment on what they do well as well as their limitations, in order to develop their strengths, reduce their weaknesses and improve their employability (2).

Table 5.27: Participants' responses regarding their strengths and weaknesses

Theme	Number	Participants' direct words
Proactive versus getting the task done	(1)	<ul style="list-style-type: none"> • ...I am a fast-paced person, if I feel it is unnecessary, I only do it to get it done. • ...I just get the task done. • ...want to do and finish it, so that I can do the next task. • ...I am not going to waste my time on something that might be useless.
Assess strengths and weaknesses	(2)	<ul style="list-style-type: none"> • ...I love comments, so that I can improve myself. • ...if someone tells me that this is something you do good or you can work on this... I would appreciate it. • I would focus more on asking people for their opinions.

- **Continuous self-development**

In table 5.28 the direct words of the participants are provided as evidence of their opinions regarding their continuous self-development. Most of the participants indicated that they realise the importance of continuous self-development by pursuing further studies, skills development and other courses (1). The participants' perceptions regarding risk taking are very diverse. Some of the participants are reluctant to take risks out of fear for uncertainties while others would do research about risks to determine the financial implications and the potential consequences of the risks. Adding to these views, some of the participants perceive that they are impulsive and embrace challenges and they can take risks easily (2).

Table 5.28: Participants' responses regarding continuous self-development

Theme	Number	Participants' direct words
Continuous development	(1)	<ul style="list-style-type: none"> • ...want to do an MBA. • Learn more skills. • I must definitely improve my technology skills. • I realised how little I know, so I will never stop learning.
Calculated risks	(2)	<ul style="list-style-type: none"> • I will do research on the risks and the outcome. • Just go for it! There has to be signs, even if there is only a 10% probability that it would work. • I like safety. It is one thing about myself, I am scared of risks. • I am impulsive, but responsibly impulsive... I would take a risk, because I like a challenge.

5.4.3.2 Theme 2: Balancing work/life issues

In the following section the participants' feedback with regard to their opinion towards balancing work/life issues are presented. The various sub-themes that emerged from the feedback will be discussed in the following paragraphs and include balance between studies and other responsibilities and the ability to handle stress and tension.

- **Balance between studies and other responsibilities**

In table 5.29 the direct words of the participants are provided as evidence of their opinions regarding the balance between their studies and other responsibilities. Most of the participants indicated that the balance between work and other life responsibilities are very important. Although achieving balance is perceived difficult by most of the participants, they indicated that they are able to balance the two dimensions to a certain extent. They realise that if they work hard, they also need time to relax. Most of the participants are task orientated and when the work activities are finished, they like to perform other activities on a social level. On the other hand, some of the participants indicated that they are perfectionists and get frustrated when they do not have enough time to balance both their work and social life (1). On a social level the participants indicated that they take part in various activities which include sport, arts, and socializing with friends (2). For most of the participants their studies take priority before social activities, mostly because of time constraints and the importance of their studies for future fulfilment. (3).

Table 5.29: Participants' responses regarding their balance between studies and other responsibilities

Theme	Number	Participants' direct words
Balance	(1)	<ul style="list-style-type: none"> • When I work, I work and when I play, I play. • I am a perfectionist... if I do not have a lot of time my work is not of high quality... I get irritated quickly. • It is very difficult to keep balance. • Work hard, play hard scenario.
Other activities	(2)	<ul style="list-style-type: none"> • Guitar2 • Netball, jogging, movies. • Study, work, gym. • Work at reading labs, work at a company.
Study and other responsibilities	(3)	<ul style="list-style-type: none"> • I spend more time on my work, than on my social life. • I am too busy with my academics... withdraw myself from certain things...

- **Ability to handle stress and tension**

In table 5.30 the direct words of the participants are provided as evidence of their opinions regarding their ability to handle stress and tension. According to the participants they are responsible for their own stress. They state that stress will be reduced by planning better. Most of the participants indicated that they are able to manage their stress levels, by not thinking too much about it (1). The participants have different ways in which they handle stress and reduce tension. Some participants focus on physical exercises, while others take time to rest. To a lesser extent, some participants meditate or suppress their stress and tension with eating (2).

Table 5.30: Participants' responses regarding their ability to handle stress and tension

Theme	Number	Participants' direct words
How they handle stress	(1)	<ul style="list-style-type: none"> • If you planned better, you would not have had so much stress. • I handle my stress and do not think too much about it.
Channelling their stress	(2)	<ul style="list-style-type: none"> • I smoke, play guitar or listen to music. • I jog. • I sleep. • I am an emotional eater, so I eat if I stress. • I go and party with my friends.

5.4.3.3 Theme 3: Goal-setting

In the following section the participants' feedback with regard to their opinion of goal-setting are presented. The various sub-themes that emerged from the feedback will be discussed in the following paragraphs. The sub-themes include goals on long term, short term, deadlines and realistic goal setting.

- **Long-term and short-term goals**

In table 5.31 the direct words of the participants are provided as evidence of their opinions regarding long-term and short-term goals. In terms of goal setting, the participants indicated that they know it is important to set goals and to write them down, but they do not do it. They do not set goals for themselves, but they do have an idea what they want to accomplish in life (1). The participants are unsure what they want to achieve in the short and longer term and they feel slightly anxious and unsure of the future. Their short-term goals mostly focus on the successful completion of their degrees (2). The participants do not have set long-term goals, but rather prospects they want to fulfil. These prospects include paying their study loans, travelling or

striving towards new ventures in terms of their work, physical and social life. Most of these prospects are dependent of external factors. Most participants are undecided and feel uncertain about their goals with no purpose and motivation (3). Most of the participants set general goals and cannot seem to distinguish between long-term and short-term goals. Furthermore, none of the participants conveyed any specific, measurable, achievable, and realistic or time bound (SMART) goals.

Table 5.31: Participants' responses regarding long-term, short-term and shorter term goals

Theme	Number	Participants' direct words
Do you have goals	(1)	<ul style="list-style-type: none"> • ...sometimes...I talk a lot to myself... goals stay in my head... I am not really someone that writes my goals and look at it. • Do not have set goals... No I would say I hope so...
Short-term goals	(2)	<ul style="list-style-type: none"> • Give assignments in on time... • Want a good job, manager career, marketing field. • Definitely to finish my Honours... to get a job...
Long-term goals	(3)	<ul style="list-style-type: none"> • Want to have more than one business in my name. • Personally... Want to run the Two Oceans Marathon. • Non-profit company... rather rehabilitate animals than only to give them homes. • Want some stability... go overseas... then have routines... have my own belongings, like a first house and a first car. • ...repay my study debt.

- **Deadlines**

In table 5.32 the direct words of the participants are provided as evidence of their opinions regarding deadlines. The participants indicated that they value planning in order to reach deadlines. They start doing assignments earlier, rather than leaving it for the last minute. In addition they break the big assignments in smaller parts in order to reach a deadline (1). Participants have positive and negative feelings towards deadlines. Some of the positive responses are that they classify assignments as important and urgent. In this manner they get their important work done first. They would also outsource an assignment or ask someone for help if they struggle with the assignment. The negative responses is that participants would rather just rush an assignment and hand something in, even though it is of poor work quality. This makes them feel unorganised and leads to stress and the feeling of having no control (2).

Table 5.32: Participants' responses regarding deadlines

Theme	Number	Participants' direct words
Reaching deadlines	(1)	<ul style="list-style-type: none"> • I will not delay doing assignments till the night before; I will do the assignment when I get it. • I do the work in different parts.
Adhering to deadlines	(2)	<ul style="list-style-type: none"> • I will prioritise. • I would rather rush an assignment and give a poor assignment, but I will not leave it and give no assignment. • Do what you can, it is better to give something than nothing at all. Rather do a half-proper job.

- **Realistic goal setting**

In table 5.35 the direct words of the participants are provided as evidence of their opinions regarding realistic goal setting. Participants showed that realistic goal setting is important, but they are unsure what it entails. They believe goals are important and they perceive that if they are determined and goal orientated, they will reach their goals. They also indicated that if the goals are unrealistic, it is a dream (1).

Table 5.33: Participants' responses regarding realistic goal setting

Theme	Number	Participants' direct words
Realistic goals	(1)	<ul style="list-style-type: none"> • ...if one is goal driven and you know what you want to reach, you will be able to reach your goals.

5.4.3.4 Theme 4: Time management

In the following section the participants' feedback with regard to their opinion of time management are presented. The various sub-themes that emerged from the feedback will be discussed in the following paragraphs. The sub-themes include to-do lists, prioritising tasks, the use of a diary, doing one activity at a time and time wasters.

- **To-do lists**

In table 5.34 the direct words of the participants are provided as evidence of their opinions regarding their to-do lists. The participants have different opinions of to-do lists. Some participants indicated that they actively keep to-do lists on a year planner, a notebook or they draw a picture for themselves. Some also indicated that they value technology, and make notes and reminders on their phone. Most of the participants indicated that they know they should make to-do lists, but they rather keep their activities in their head or make a few notes. They

tend to have no specific plans and they realise that this might create numerous problems for them (1).

Table 5.34: Participants' responses regarding their to-do lists

Theme	Number	Participants' direct words
To-do lists	(1)	<ul style="list-style-type: none"> • I am very absent, I have to make lists. • I remember things in my head... • I do not use a year planner where I write everything down... I remember everything in my head. • I have calendars on my wall where I write everything that I have to do.

- **Prioritising tasks**

In table 5.35 the direct words of the participants are provided as evidence of their opinions regarding prioritising tasks. With regard to prioritizing tasks, the participants have no specific plans for their work life. They do not show the ability to prioritize their tasks according to a known technique or structure. They would just focus on the activity that gives them the best value, takes the least time, and contributes more grades or the one that pleases other people. If they cannot prioritise they would rather defer the assignment or alter between the tasks just to complete it (1).

Table 5.35: Participants' responses regarding prioritising tasks

Theme	Number	Participants' direct words
Prioritising tasks	(1)	<ul style="list-style-type: none"> • I will ensure which deadline is first... alternate till both is done. • ...I am a people pleaser, so I will finish the one that will have advantages for others too. • Distinguish between what is important and what is urgent. • I would ask for delay if I do not get to do everything. • I do not work according to a plan. • The task that I can finish the quickest, that one I would do first.

- **The use of a diary**

In table 5.36 the direct words of the participants are provided as evidence of their opinions regarding the use of a diary. All the participants indicated that they use different formats for planning and setting up their activities. Some use their phones' diaries, while others use a typical paper based diary. Although they expressed the value of a diary, most participants started using their dairies at a late stage in their studies and still struggle to grasp the

importance of a diary (1). The participants indicated that they sometimes follow a schedule in order to finish their tasks. They use calendars or clocks on their phones to adhere to their time schedules and although they use these methods, they still struggle to keep good, organised time schedules (2).

Table 5.36: Participants' responses regarding the use of a diary

Theme	Number	Participants' direct words
Using a diary	(1)	<ul style="list-style-type: none"> • I set up lists to do, which I tick off every day... • ...my diary is not in order or logically, but it makes sense to me. I know when I have to do what. • I only started using the hours in the diary from this year. • My diary doesn't work so good for me...
Method	(2)	<ul style="list-style-type: none"> • A diary. • Cell phone. • I have a monthly calendar....

- **Doing one activity at a time**

In table 5.37 the direct words of the participants are provided as evidence of their opinions regarding doing one activity at a time. The participants showed that they have diverse attitudes towards doing one activity at a time. Some participants do several activities at one time and in this manner they do everything until it is done. Most participants indicated that they rather like to focus on one activity at a time, because it feels more structured and they do not get strangled between different mindsets (1).

Table 5.37: Participants' responses regarding doing one activity at a time

Theme	Number	Participants' direct words
One activity at a time	(1)	<ul style="list-style-type: none"> • I will ensure which deadline is first... switch between both till they are done. • See which one is the least work and which one is going to take the most time. • I like doing one activity at a time.

- **Time wasters**

In table 5.38 the direct words of the participants are provided as evidence of their opinions regarding time wasters. Most participants feel that they procrastinate because of time wasters. Although there are different time wasters that influence them, the most common time wasters include social media, movies, social gatherings and computer games. They also get suppressed

by working in groups and people that they feel waste their time. Some of the participants feel that their perfectionist traits waste their time, because they focus too much on unnecessary and unimportant information when completing assignments. All these opinions contribute to time that is lost on unnecessary and pointless activities (1).

Table 5.38: Participants' responses regarding time wasters

Theme	Number	Participants' direct words
Time wasters	(1)	<ul style="list-style-type: none"> • Facebook. • ...Waste of time to sit in traffic. • Movie... • Computer games. • Sleep and friends. • To be dependant of other people.

5.4.4 Summary of qualitative research

Several qualitative research methods were used to gather information regarding the nature of the participants' problem solving skills, communication skills and self-management skills. With the document analysis (par. 5.4.1) the nature of participants' problem solving skills were investigated. In this regards the focus was on their ability to create a problem solving process (par. 5.4.1.1) as well as solving a problem (par. 5.4.1.2). The following method used was observations. The observations were conducted by an expert in the field of communication who used observation sheets to assess the participants' communication skills (par. 5.4.2). The last method for gathering qualitative data was the semi-structured interviews which focused on the participants' self-management skills (par. 5.4.3). From the interviews four themes arose, namely self-awareness and development (par. 5.4.3.1), balancing work/life issues (par. 5.4.3.2), goal setting (par. 5.4.3.3) and time management (par. 5.4.3.4).

5.5 SUMMARY

Chapter 5 provided the results for the investigation of the skills level of participants. The results were reported according to the respective statistical techniques used in this study.

The quantitative results firstly focused on validity, which was measured with the exploratory factor analysis. From the skills, written communication had one factor, oral communication also one factor, problem solving three factors and teamwork five factors. Hereafter, reliability was measured with Cronbach's alpha. All constructs were measured as reliable, except team flexibility, which was then discussed in separate parts namely team adaptability and team

flexibility. Descriptive statistics were used to show means and standard deviations of constructs. Finally teamwork was measured with effect sizes and practical significance to show the different perception of respondents in rating themselves and evaluation by an expert.

The qualitative results in this study started with a document analysis of the problem solving process and the creative problem. Then observations were discussed regarding the barriers of effective communication. Finally, semi-structured interviews which focused on self-management was performed which led to four themes namely, self-awareness and development, balancing work/ life issues, goal setting and time management.

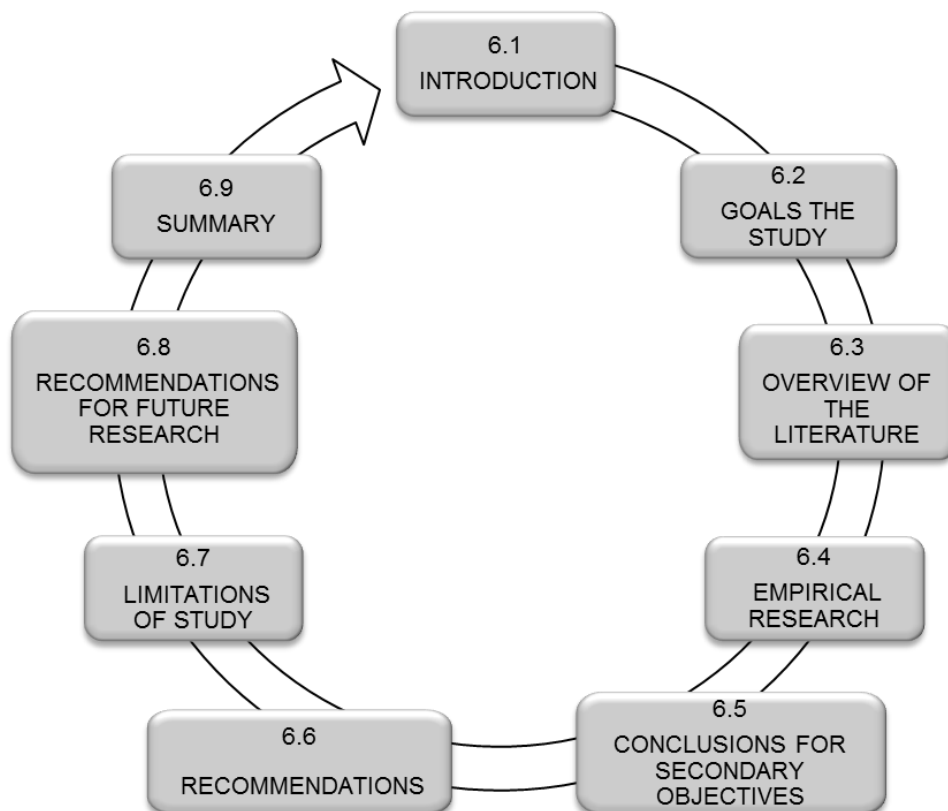
Chapter 6 will provide a discussion of the results in the form of major findings, conclusions, recommendations, limitations and recommendations for future research.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 INTRODUCTION

The purpose of this chapter is to draw a number of conclusions, and to make recommendations from the results obtained in Chapter 5 and the preceding literature review (Chapters 2 and 3). The chapter commences with the goals of this study (par. 6.2), followed by an overview of the literature which was used to reach the goals (par. 6.3). Next, the empirical research for this study will be discussed (par. 6.4). Hereafter, conclusions pertaining to each secondary objective are presented (par. 6.5). The limitations of the study are furthermore discussed (par. 6.6). This chapter concludes with recommendations for future research (par. 6.7) and a summary (par. 6.8). Figure 6.1 provides an abbreviated synopsis of Chapter 6 pertaining to the main sections that are to be discussed.

Figure 6.1: Chapter 6 abbreviated synopsis



6.2 GOALS OF THE STUDY

The primary goal of this study was to investigate final-year undergraduate business management students' ability to perform the pertinent employability skills which are deemed

essential in the business environment. The following research secondary objectives were formed (par. 1.4.2):

- Investigate the development of employability (research objective 1),
- Identify the skills deemed necessary for graduate employability (research objective 2),
- Investigate the role of universities in the development of employability skills (research objective 3),
- Evaluate the employability skills of final-year undergraduate business management students (research objective 4).

6.3 OVERVIEW OF THE LITERATURE

In order to conduct the literature study, scholarly articles, relevant books, subject specific journals and websites were used. Articles and journals were obtained and also electronic search engines intended for the literature in this research study. Books in the research field were accordingly conducted to contribute to the literature. Subjects included were management, competencies required in an organisation, skills development, employability, research methods and procedures.

Some of the sources that were consulted date back as far as 1966. The reason for consulting these older sources can be attributed to the fact that their contributions, based on the authors' view of a specific school of thought or concept, are important in order to understand the full impact of the research problem. In addition, older sources were used in order to include primary sources instead of secondary sources for purposes of scientific accuracy, and since more recent sources also refer to these primary sources. With the assistance of older resources, recent and current research in the field of social sciences is placed into proper perspective.

The literature for this research study started with a thorough evaluation of employability in order to ensure a theoretic background for the study. Hereafter, different employability skills were analysed to determine the four most important employability skills graduates need to master to function effectively in the work environment. These four skills were accordingly thoroughly discussed.

Chapter 2 commenced with an in-depth investigation into developmental and emerging views on graduate employability. The importance of quality skills on an national and international level has been explained followed by different theories and models of graduate employability which

were highlighted to determine the impact of these theories and models on graduate employability.

With regard to the South African perspective, the skills development initiatives which are necessary to reduce the unemployment rate and develop a skilled workforce were emphasised. All aspects considered it is clear that graduates need to master a wide range of skills to function effectively in the work environment.

Chapter 3 begins with an in-depth focus on employability skills, by firstly focusing on employability and the skills needed by graduates as two separate concepts. Thereafter, employability skills were discussed as one concept. Following this discussion, an analysis of employer expectations and student expectations were outlined. Hence, the four most important skills for employability were determined and accordingly discussed in detail.

Employability and skills were distinguished in order to understand the concept of employability skills as a whole. Employability skills are those skills employers deemed necessary for the successful functioning of newly appointed graduates in the work environment. Employers expect graduates to not only obtain the employability skills, but they should also be able to demonstrate these skills effectively. In this regard the level descriptors proposed by the South African Department of Higher Education should be used as the guideline for universities in terms of skills development. Despite the focus on the development of employability skills by universities, employers do not expect graduates to possess all the skills and knowledge of a good worker when they enter the work environment. There is a realisation that it takes time and effort for graduates to translate and transform the knowledge and skills they mastered at universities to enable them to contribute effectively to the working environment.

Although this might be true, it is important for graduates to not only have academic or subject knowledge. Graduates' skills need to be developed in order for them to function effectively in the work environment. The four skills that are deemed important include problem solving, communication, teamwork and self-management.

6.4 EMPIRICAL RESEARCH

6.4.1 Research methodology

In this study the data collection was systematic, controlled and empirically performed through the use of multi-methods research. Multi-methods research uses quantitative and qualitative methods independent of each other to answer specific research questions. Both quantitative and qualitative approaches have its strengths and weaknesses and therefore a mixture of both

can have a positive effect on the outcome of the research. A multi-methods approach was used to determine the level of skills of final-year undergraduate business management students.

6.4.2 Participants

The population for both the quantitative and qualitative data collection methods of this study was selected by means of convenience and purposive sampling. The population of this study are all final-year undergraduate business management students and the sample for both the qualitative study and the quantitative study included all final-year undergraduate business management students who applied and qualified for the business management and marketing honours degree at the North-West University (N=45) at the end of 2013, since the sample of respondents is seen as being eligible for employment as graduates they were conveniently purposive selected to partake in this study. The purposive selection of the participants restricted the generalisation of the results in this investigation to the target population (par. 4.4.4.1).

6.4.3 Quantitative data collection and analysis

Quantitative data collection methods were used to collect data pertaining to some elements of communication skills (written and oral), teamwork skills and problem solving (par. 4.4.3.1).

The quantitative research analysis included an exploratory factor analysis to determine the validity of the study (par. 5.3.1). Thereafter, Cronbach alpha values were used to determine the reliability of the study (par. 5.3.2). The reporting of the results of the quantitative analysis commenced with written communication (par. 5.3.3), followed by oral communication (par. 5.3.4), the problem solving process (par. 5.3.5-5.3.7) and teamwork (par. 5.3.8.). Finally the effect sizes indicate the extent of difference between the self-measured teamwork skill and the expert perception of the respondents' teamwork skills (par. 5.3.8.1-5.3.8.6).

6.4.4 Qualitative data collection and analysis

The qualitative data collection methods were used for collecting data pertaining to some elements of problem solving, communication skills (oral), teamwork skills and self-management skills (par. 4.4.3.2).

The qualitative research analysis included a document analysis, observations and semi-structured interviews. The document analysis (par. 5.4.1) enabled the researcher to determine the ability of the participants to develop a process for solving problems (par. 5.4.1.1) as well as their ability to solve a creative problem (par. 5.4.1.2). Observations were done on the participants' teamwork skills and communication (par. 5.4.2) and an expert was involved in the gathering and analysis of the data. The semi-structured interviews (par. 5.4.3) focused on the

participants' self-management skills. From the interviews four themes arose, namely self-awareness and development (par. 5.4.3.1), balancing work/life issues (par. 5.4.3.2), goal setting (par. 5.4.3.3) and time management (par. 5.4.3.4).

6.4.5 Triangulation

Due to the use of quantitative and qualitative research methods, methodological triangulation was reached in this study. Quantitative and qualitative research instruments were compared to determine similarity between the results. Some of the conclusions of the methods were similar and contributed to triangulation. Triangulation contributed to increasing confidence in research data, creating innovative ways of understanding a phenomenon, revealing unique findings, challenging or integrating theories, and providing a clearer understanding of the problem. Triangulation was not discussed separately, but rather throughout the reporting of the results as it occurred (chapter 5).

6.5 CONCLUSIONS PERTAINING TO EACH SECONDARY OBJECTIVE

The conclusions from this research study are discussed in this paragraph based on the secondary objectives (par. 1.4.2).

6.5.1 Secondary objective 1: Investigate the development of employability.

The concept of employability has various meanings in numerous contexts. In order to understand the concept of employability in the context of this study, various views on the concept was investigated. It was found that the development of employability dates back to the 20th century (par. 2.2) and various leading researchers discussed and formed their own views of the concept.

In order to measure employability, the focus of this study was on the employability skills of final-year undergraduate business management students. Employability skills range from vague notions of preparing for a first job to very precise lists of specific skills students need to master. It is not possible to fully grasp the concept and context of employability skills without a focus on the meaning of the concepts employability and the skills needed by graduates to perform effectively in the work environment (par. 3.2). These two concepts were discussed separately (par. 3.2.1 and 3.2.2) and hereafter it was found that employability skills are those skills employers deem necessary for the successful functioning of newly appointed graduates in the work environment.

Various models incorporate different researchers' viewpoints on graduate employability. Although some employability models focus on employability in general, others are developed for

specific contexts or situations such as lifelong learning, psychological resources and the supply and demand side of employability. It was found that four models focus specifically on graduate employability and play a pivotal role in this study. Firstly, the USEM model (Understanding, Skilful practices, Efficacy beliefs, Meta-cognition) (par. 2.4.1), which focuses on the four broad components of graduate employability. Secondly, Bridgestock's conceptual model (par. 2.4.2) which states graduate attributes for employability. Thirdly, the Graduate Employability model (par. 2.4.3) which is a contemporary explanation of graduate employability and finally the Bases of Competence model (par. 2.4.4) that recognises the gap in skills development of graduates.

It was also found that various businesses worldwide experience challenges and increased competition in the development of skills to ensure a competent workforce. Global competition and rapid technology changes not only emphasises the optimal utilisations of skilled graduates, but have also been the driving forces to ensure flexible and competent workforces (par. 2.5). The global and national perspective to employability skills reflects that role-players are attempting to develop skills. Despite the attempt of the South African based agencies and strategies aimed at the development of skills, employers have a growing concern regarding the skill levels of graduates.

6.5.2 Secondary objective 2: Identify the skills deemed necessary for graduate employability.

It is evident that numerous skills are depicted as necessary and important to function effectively as new appointees in the work environment. It was found that the most important skills needed by graduates to perform effectively in the working environment, are communication, teamwork, problem-solving, self-management, planning and organising, technology, life-long learning, and initiative and enterprise. These skills not only provide greater chances for initial employment, but will also enable graduates to progress within a business, achieve the employees own potential and contribute successfully to business strategic directions. Although these skills form the basis of the expectancy by employers, graduates' ability to solve problems, have communication skills, work in teams, and have self-management skills are higher in demand in the work environment (par. 3.2.3).

In essence, it was found that problem-solving is the process followed when solving a problem, thereby taking corrective action to meet objectives and achieve desired results. In order for individuals to effectively solve problems, they need to be able to think critically and judge situations in a reflective manner (par. 3.3).

Well-honed communication skills is significant for graduates, given the fast pace and complexities of recent times. The importance of communication as a skill stems from communication which is divided into different message channels. A communication channel is the medium or carrier of communication between a sender and a receiver. Communication channels mainly include verbal communication which includes all written and oral communication and nonverbal communication which include gestures, attitudes or expressions (par. 3.4).

Teamwork is the third skill found important for employability. Many researchers do not differentiate between the concepts groups and teams, but there is a significant difference between the meaning and functioning of groups and teams. A group is a collection of people working together but not necessary working together towards the same goal whereas a team consists of three or more individuals who are working together to achieve a common objective. A group will become a team when the members demonstrate a commitment to each other and to the end goal. Consequently, it is vital for graduates to become proficient in leading and participating in teams (par. 3.5).

It was found that self-management include components such as personal drive and resilience, balancing work/life issues, self-awareness, goal setting, time management, creativity and innovation and self-confidence. However, since universities need to provide opportunities for the development of self-management skills, curriculums do not necessarily focus on all aspects pertaining to self-management.

The most important self-management skills expected by employers include self-awareness and development, balancing work and life issues, goal setting and time management.

6.5.3 Secondary objective 3: Investigate the role of universities in the development of employability skills.

Although universities claim to focus their teaching and learning efforts on the development of employability skills, and despite the attempt of the South African based agencies and strategies aimed at the development of skills, employers have a growing concern regarding the skill levels of graduates, it was found that employers are not satisfied with the level of skills graduates bring to the work environment. Two theories emphasise the different roles of universities, employment and the labour market in terms of graduate employability. These two theories are the Consensus and Conflict Theories.

The Consensus Theory researchers (par. 2.3.1) state that the introduction of generic skills at universities will enhance the employability of graduates and enable them to subsequent

progress in the corporate environment. The Conflict Theory researchers (par. 2.3.2) on the other hand argue that universities alone are not responsible for skills development. These researchers argue that employers are equally responsible for the development of newly appointed graduates' employability skills. According to Conflict Theory employers need to work with universities to ensure that participants develop those skills which are deemed important for functioning successfully in the work environment.

Despite the opposing approach of the Consensus and Conflict Theories to graduate employability, both agree that graduates should possess a variety of skills before they enter the work environment. Although the acquisition of suitable skills may not ensure access to employment, it will increase graduates' chances to gain initial employment (par. 2.3).

Henceforth, although the conflict theory of graduate employability (par. 2.3.2) gained momentum in recent years, some employers are still of the opinion that it is the responsibility of universities to provide opportunities for the development of graduates' employability skills. However, even employers that support the conflict theory suggest that universities need to enhance employability skills through teaching and learning initiatives which should be built into university curriculums (par. 2.3). It was found that there are mainly two reasons why universities fail to produce skilled graduates. Firstly universities focus too much on the knowledge of academic subjects which is seen as inadequate in the current economic situation and the skills which are learned will not necessarily ensure greater opportunities for employability. Although many universities' mission statements clearly stipulate a focus on the development of employability skills, clearly defined strategies for the development of skills are not included in curriculums. Secondly, many universities are unfamiliar with the skills they need to focus on in order to ensure the delivery of employable graduates (par. 3.1).

Since this study supports the Conflict Theory from a university context, it was accordingly important to focus on the expected level of skills that undergraduates need to display.

According to the level descriptors of the South African National Qualifications Framework depicted by SAQA, undergraduates need to demonstrate problem-solving skills, communication skills, teamwork skills and self-management skills on different complexity levels as they progress from their first year to their final year (third year) of study (table 3.1 and table 3.2). South African universities therefore need to ensure that specific strategies and policies are developed to ensure that these skills are focused on in curriculums and learning environments (par. 3.3.3).

6.5.4 Secondary objective 4: Evaluate the employability skills of final-year undergraduate business management students.

The employability skills of final-year undergraduate business management students concluded numerous results. The four employability skills will subsequently be discussed.

6.5.4.1 Problem solving skills

Problem solving skills were evaluated by collecting data by means of a problem solving test (Appendix A). The test consisted of three sections which were used for collecting quantitative and qualitative data. Sections A and C were analysed for qualitative purposes (par. 4.4.3.2.1), while section B were quantitatively analysed. Section A of the test consisted of a business related problem in the form of a scenario. The participants were not expected to solve this problem, but rather identify the specific process they needed to follow to solve this problem. Section B had a scenario where participants were expected to answer the seven questions, which was assessed and the scores were transferred onto a four-point Likert scale for statistical analysis. In section C of the problem solving test the participants had to solve a creative problem. This section consisted of only one question and it was used to measure the participants' creative problem solving skills.

The expected level of undergraduates is determined by the level descriptors of the Higher Education Qualifications Framework. From the information in table 3.1 it is evident that specific descriptors exist for higher education institutions to enable participants to develop as problem solvers who are equipped to function effectively in the working environment. Participants' problem-solving skills need to progress from solving routine problems in familiar contexts in their first year of study and unfamiliar contexts in their second year of study to solving complex problems as graduates (par. 3.3.3).

It was found that none of the respondents were able to develop the problem solving process correctly and that they were skilled lower than second-year university level. Most participants had an idea of what was expected of them, but they completely changed the order of the process or even included additional steps in the process. This is an indication of the participants not reading the question properly or executing the request without thinking about the options available. Participants also lack the ability to use the problem solving process to effectively develop alternatives. They were evaluated upon alternatives, reasoning and choosing the best alternative. Participants show a competency of second-year university level. Participants do not have the ability to reason different solutions of implementation and cannot show creativity in their solutions. They are only able to give logical and normal alternatives.

6.5.4.2 Communication skills

Communication skills data were collected by means of a communication skills test. This test (Appendix C) consisted of two sections which focused on written and oral communication separately. The respondents' oral and written communication skills were assessed separately by an expert in the field of communication. This expert graded the respondents' written and oral skills on separate assessment rubrics (Appendix D) which were compiled from the literature study (par. 3.4). Observation data were captured on protocol sheets and analysed with a quantitatively. With regard to the respondents' communication skills, they were observed on the manner in which they communicated with each other and how they provided feedback. From the qualitative communication results, it was found that participants have barriers in their communication. These barriers include verbal-, non-verbal-, emotional-, argumentative- and attitude barriers. These barriers of communication reflect that participants do not have effective oral communication skills and this contributes to the low marks within the oral communication constructs.

The expected level of undergraduates is determined by the level descriptors of the Higher Education Qualifications Framework. In Table 3.2 it was found that specific descriptors exist for higher education institutions to enable participants to develop their communication skills and are equipped to function effectively in the working environment. Employers recommended that participants receive more training in oral communication and written communication skills, self-expression as well as the use of electronic media, such as e-mail and presentation programs (par. 3.4.3).

It was found that participants are not skilled in written communication and have a competency level lower than first-year university level. The participants lack the ability to write effectively and they have low competency in writing in a business manner. It was found that participants show a second-year university level for oral communication in terms of vocabulary use. Hence, they lack the ability to manage conflict.

6.5.4.3 Teamwork skills

Teamwork skills data were collected from the same teams which were formed for the data collection of the participants' oral communication skills (par. 4.4.3.1.1). Since the researcher was challenged with the assessment of various teams' skills at the same time, the participants' were video recorded for later analysis. A rubric was accordingly used to assess the participants' teamwork skills on an observation sheets. The participants were observed with regard to their teamwork skills which focused their participation, questioning, listening, communication, conflict,

leadership, respecting, persuading, adaptability, support, responsibility, individuality, diversity, creativity and evaluative skills.

The data collection of the participants' teamwork skills entailed not only an external observation analysis, but also a self-evaluation by the participants themselves. The same assessment rubric used by the researcher to evaluate the participants' teamwork skills was also used for the self-evaluation. All data for teamwork were analysed quantitatively.

The expected level of undergraduates teamwork skills is determined by the level descriptors of the Higher Education Qualifications Framework. Undergraduates need to function effectively within a team and demonstrate their competency by being able to:

- contribute new ideas to the team,
- support other members of the team,
- take a share of the responsibility in the team,
- mediate between team members, and
- understand their role in the team (par. 3.5.3).

It was found that the participants function mostly on a second- or first-year university level regarding their teamwork skills. Participants contribute new creative ideas in their teams and they have an ability to persuade team members (par. 5.3.8.2). Participants accordingly support others in the team. They also have the ability to respect, help and participate on a first- and second-year level (par. 5.3.8.1). In contrast, they do not take responsibility for their tasks individually and they show substandard leadership within the team (par. 5.3.8.3). Based on mediating within their teams, participants do not have an ability to handle conflict, because they avoid conflict (par. 5.3.8.4). Participants have a substandard level in terms of participating in teamwork. This shows that participants reflect a first-year level competence (par. 5.3.8.1). Hence, they also lack good individual skills and they do not take responsibility for their roles (par. 5.3.8.3).

From the effect sizes, it is evident that a statistically significant difference exists between the self-evaluation teamwork skill and the expert's evaluation of the teamwork skill. The students do classify themselves better and have a perception of a higher skill level than what they actually have (par. 5.3.8.1-5.3.8.6).

6.5.4.4 Self-management skills

Self-management skills data was collected by means of semi-structured interviews (Appendix G). Nine participants were randomly selected to be interviewed by an interviewer addressing topics predetermined by the researcher. From the interviews, the following themes arose:

- Theme 1: Self-awareness and development
- Theme 2: Balancing work/life issues
- Theme 3: Goal setting
- Theme 4: Time management

The expected level of undergraduates' self-management skills is determined by the level descriptors of the Higher Education Qualifications Framework. It was found that specific descriptors exist for higher education institutions to enable students to develop their self-management skills and be equipped to function effectively in the working environment. These descriptors indicate that students need to manage their own learning by evaluating, identifying and addressing their needs (par. 3.6.5).

Regarding self-awareness and development, it was found that most participants want a job when they graduate, but they are unsure and unspecific regarding their career goals. Participants indicated that they are motivated to enhance their personal lives, they understand their emotions and they are aware of the situations which have an emotional influence on them. Regarding criticism, it was found that their reactions to criticism are not necessarily determined by the source or nature of the criticism, but rather the manner in which the criticism is conveyed. They are accordingly much more sensitive to critique in the workplace, where they have to perform and be productive. It was also found that they perceive the importance of the work and getting the task done as a priority over and above the proactive gaining of knowledge and skills development. The participants realise the importance of assessing their own strengths and weaknesses and it was found that they need for people to comment on what they do well as well as their limitations, in order to develop their strengths, reduce their weaknesses and improve their employability. Finally it was found that the participants are reluctant to take risks out of fear for uncertainties while others would do research about risks to determine the financial implications and the potential consequences of the risks. They are mostly impulsive and embrace challenges and they can take risks easily (par. 5.4.3.1).

In terms of balancing work/life issues, it was found that participants take part in various activities which include sport, arts, and socialising with friends, but their studies take priority before social activities. They also perceive that they are responsible for their own stress. Although they might experience stress, they have different ways in which they handle stress and reduce tension. Some participants focus on physical exercises, while others take time to rest. To a lesser extent, some participants meditate or suppress their stress and tension with eating (par. 5.4.3.2).

With regards to goal setting, participants are unsure what they want to achieve in the short and longer term and they feel slightly anxious and unsure of the future. Their short-term goals mostly focus on the successful completion of their degrees. The participants do not have set long-term goals, but rather prospects they want to fulfil. These prospects include paying their study loans, travelling or striving towards new ventures in terms of their work, physical and social life. It was also found that the participants are undecided and feel uncertain about their goals with no purpose and motivation. It was also found that participants have positive and negative feelings towards deadlines. Some of the positive responses are that they classify assignments as important and urgent. They would also outsource an assignment or ask someone for help if they struggle with the assignment. The negative responses is that participants would rather just rush an assignment and hand something in, even though it is of poor work quality. This makes them feel unorganised and leads to stress and the feeling of having no control. Although they have mixed feelings, they value planning in order to reach deadlines (par. 5.4.3.3).

Finally, it was found that time management is a challenge for participants. Some participants indicated that they actively keep to-do lists, while others rather keep their activities in their head or make a few notes. The participants also reflect that they started using their dairies at a late stage in their studies and still struggle to grasp the importance of a diary. It was also found that participants rather focus on one activity at a time, because it feels more structured and they do not get strangled between different minds. Hence, they would just focus on the activity that gives them the best value, takes the least time, and contributes more grades or the one that pleases other people. If they cannot prioritise they would rather defer the assignment or alter between the tasks just to complete it. Participants also feel that they procrastinate because of time wasters. Although there are different time wasters that influence them, the most common time wasters include social media, movies, social gatherings and computer games (par. 5.4.3.4).

In general it is evident that based on the four employability skills, undergraduate students are not sufficiently skilled to function effectively in the work environment. This poses problems for the undergraduates themselves who will seek employment, for universities who educate undergraduates and the employers who ultimately have to hire a new work force.

6.6 RECOMMENDATIONS

6.6.1 Recommendations for universities

- Universities need to include skills development strategies in their curriculums. This means auditing current fields of study and developing strategies that contribute more towards practical- and work-related skills.
- Universities need to develop work-integrated learning opportunities where students do practical work at businesses. A closer relationship could mean that universities develop learnerships and vacation work for students across their years of study. For this reason, universities not only have to move with the times; they have to keep one step ahead of future transformations.
- Universities need to develop lecturers' teaching skills to enable them to teach and develop these skills in students. This development of teaching skills relates to introducing and shaping the Lifelong Learning Programme, which could also motivate the next generation for education and training programmes.
- Universities need to develop a close relationship with the private sector, in order to determine the skills necessary for employability. Enhanced networking and communication is needed, at both university and employment levels, with a view to improving the responsiveness of education and training systems, and provision, in meeting the needs of national labour markets
- Facilitate the development of more and better projects, with a view to supporting the development of new tools and methodologies to assist South Africa in closing the skills gap and facilitating skills development and upgrading for companies and individuals alike
- Promote cohesion, collaboration and cooperation across different education and training sub-sectors. Existing (and future) funding programmes and actions should encourage increased collaboration between different education and training sub-sectors (higher education, adult education, vocational training) with a view to providing a cohesive and coordinated programme that actively recognises the demands of the labour market.

6.6.2 Recommendations for students

- Students need to be motivated to take responsibility for developing their own skills, by taking initiative and do holiday work, learnerships and get exposure to business structures. They could ask for assistance from lecturers to obtain practical experience at network businesses.

- Students need to realise and understand the importance of skills development and be proactive in developing it themselves. Students need to realise their potential. They could partake in workshops where one stimulate your brain, reach your full potential and realise your talent.

6.6.3 Recommendations for lecturers

- Lecturers need to have the ability to develop the skills necessary for employability. They accordingly have to develop their own skills continuously. As in certain medical careers and the financial services industry, the educational industry could also develop CPD marks. This entails a continuous development program for all individuals pursuing and following this career.
- Lecturers need to know which educational strategies they should implement in order to develop these skills. Modern teaching and training must be flexible, sustainable, learner-centred, accessible, efficient, effective and innovative; it should centre on the model of learning outcomes in order to produce employees who have the right mix of skills; to achieve this there is a need for continuing competence development amongst lecturers, trainers and tutors.
- Lecturers need to evaluate their own educational abilities and develop their educational abilities and skills in areas where needed. In business they refer to a graphic rating scale. Just like this scale measures business performance and successes, an academic scale can also be designed to evaluate lecturers' abilities.
- Lecturers should develop a mentality of providing guidance services or being a mentor, which can support students in identifying training needs and upgrading their skills.

6.7 LIMITATIONS OF THE STUDY

No study is without limitations. Subsequently, the limitations relevant to the study include the following:

- Due to time constraints and limited funding, the study was only conducted within the Business Management program at one South African university.
- Time constraints also limited quantitative and qualitative data to 45 students at the NWU Potchefstroom. Results can therefore not be generalised to the larger South African university community.

- The magnitude of data collection limited the study to focus on only four employability skills namely *problem solving, communication (written and oral), teamwork and self-management*, pertaining to the employability skills of graduates.

6.8 RECOMMENDATIONS FOR FUTURE RESEARCH

Future research can, by noting the abovementioned limitations, include:

- Investigation of other employability skills pertaining to graduate employability, such as planning and organising, life-long learning, initiative, enterprise and technology.
- Research pertaining to the business awareness (an interest in business and an understanding of the wider environment in which the business operates) among graduates.
- Future studies can also compare different universities with respect to employability skills as mentioned in this research study.
- Development of a program for the development of employability skills which can be used by either universities or lecturers.

6.9 SUMMARY

Chapter 6 addressed the various conclusions, recommendations and limitations of the study. After providing the goals of the study, a brief overview of the literature study were drawn. Subsequently, the empirical research was discussed. Hereafter, a number of conclusions were drawn for each secondary objective, some based on theory, such as provided in Chapters 2 and 3, and others based on the results formulated in Chapter 5. Recommendations pertaining to each role-player are furthermore formulated in order to emphasise the importance of employability skills and accordingly accentuate the influence and responsibility of all role-players. The chapter concludes with limitations pertaining to this study, and indicates recommendations for future research.

The researcher trusts that all role-players will realise the importance of employability skills of students and that universities will furthermore investigate the skills gap. Furthermore, the researcher hopes that programs will be developed to enhance the employability of all students. However, it is important that role-players bear in mind that employability is a continuous effort, which includes an ambition for lifelong learning. In addition, the researcher trusts that students will be encouraged to develop their problem solving, communication, teamwork and self-management skills and practise these skills in order to enhance their employability.

In conclusion, the researcher trusts that the recommendations made in this study, pertaining to the skills level of final-year undergraduate business management students, will be of value to university curriculum developers, employers and students with the aspiration to be employable in the workplace.

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APPENDIX A

PROBLEM SOLVING SKILL TEST

MEASURING TOOL FOR PROBLEM SOLVING SKILL

This test consists of three sections. You are required to complete each section thoroughly.

SECTION A – Problem solving concepts

You are appointed as a sales manager in the sales room of BMW. One of your clients has a problem with the BMW sold to him. To solve this problem you need to follow a specific process. Use the different options in the boxes below and develop a process that you will use to solve the problem. You may only choose one option in each color labelled block below. Each block represents a step in the process and each block may only be used once. The chosen first block, will represent step one, with the second chosen block as step two and continuing to form your process. For example:

Step 1: Black 4

Step 2: Yellow 3

Red Block

1. Distribute the resources in the business to solve the problem by using timelines or action plans.
2. Choose one of the resources in the business and describe the use of this resource for solving the problem.
3. Describe the different resources investigated and compare it as applicable to the problem.
4. Explain the existing resources used in the business to solve the problem.

Green Block

1. Evaluate the opportunities and threats of the problem and select one solution.
2. Apply another business' problem strategy to this problem to select a solution.
3. Evaluate the alternative solutions and select a solution.
4. Provide a summary of the problem and explain it.

Orange Block

1. Write my own new explanatory framework of the problem.
2. Explain the problem using examples.
3. Identify the value of the problem in terms of routine and non-routine solutions.
4. Provide possible solutions applicable to the problem.

Blue Block

1. Write my own new definition of the problem.
2. Define the problem with examples.
3. Identify all the aspects of the problem.
4. Evaluate the nature of the problem.

Purple Block

1. Create a new solution through combining existing solutions together.
2. Explain and assess the solutions.
3. Submit regular progress reports or updates to ensure workable solutions.
4. Choose one of the solutions determine the cost of this solution for the business.

SECTION B – Scenario

- Study the following case study.
- Answer all the questions.
- If you are unable to answer a question, you must fully explain why you are not able to answer the question.

A few months ago, you were appointed as a production clerk at GEM Automobile (Pty) Ltd. GEM is a small car manufacturing plant located in Port Elizabeth. The company was established in 2000. As the years passed, GEM has grown immensely in sales, brand image and the company has an excellent reputation for meeting high quality standards. The company produces more than 200 cars per month and has 30 employees.

As a production clerk you are responsible to compile records and reports on the volumes of production, consumption of raw material and quality control. Inspecting parts and deciding if they meet the quality standards are your main obligations, but you are also required to run errands for directors of the company and lock the store room every Friday after work. As an employee of GEM, you report to the production officer at the end of every three months.

One day, you receive a large batch of parts by a trusted supplier in the area, but you observe that the quality is questionable. You do not have time to re-order the parts, since 100 cars needs to be delivered to clients within two weeks. Due to the fast-paced production schedule, you must quickly decide what to do with the questionable parts and how to handle this situation.

- B1. After reading this scenario, identify as many problems as you can and motivate why you think it is a problem.
- B2. Using the problems you mentioned in B1, what is, according to you, the most important problem that needs to be solved? Why is it more important to solve this problem than the others you mentioned in B.1?
- B3. Define a problem statement for GEM Automobile.
- B4. Generate alternative solutions for the problem.
- B5. Evaluate the alternatives by explaining the advantages and disadvantages of the alternatives for the business.

- B6. Which alternative in B.5 is according to you the best solution for the problem? Motivate your choice.
- B7. Explain how you would implement the solution chosen in B6 and describe the influence on the business' resources (production factors).

SECTION C – Creative problem solving

- Read the problem provided and explain thoroughly how you would solve the problem at hand.
- C1 A needle gets lost in a haystack. What will you do to get the needle out of a haystack? Consider many ways.

APPENDIX B

PROBLEM SOLVING SKILL ASSESSMENT RUBRIC

MEASURING TOOL FOR PROBLEM SOLVING SKILL

Analytical assessment matrix

SECTION A – Problem solving concepts (Qualitative)

These types of questions determine whether graduates understand the concepts relating to problem solving. If a graduate does not understand what are expected of them, they would not be able to answer the question correctly or follow the steps in the problem solving process correctly.

Step 1: Blue 2

Step 2: Orange 4

Step 3: Green 3

Step 4: Red 1

Step 5: Purple 3

SECTION B – Scenario (Quantitative)

Competency-based questions ask you about actions that you have taken in the past: hypothetical questions ask you about the course of action you might take in the event of some fictional situation, often work-related.

Problem solving process:

Step 1: Define and structure the problem. **B1, B2 and B3**

Step 2: Generate alternative solutions. **B4**

Step 3: Evaluate and select an alternative. **B5 and B6**

Step 4: Implementing the solution. **B7**

Step 5: Learn and seek feedback.

Criteria:

1- Not skilled

2- Substandard

3- Fairly skilled

4- Skilled

B1. After reading this scenario, identify as many problems as you can and motivate why you think it is a problem.

Problems:

Obvious	Hedged
Questionable quality of parts	200 cars, only 30 employees
	Only report once in three months
	Make coffee for directors and lock store room on a Friday

Criteria	Mark
• No problems identified / Do not answer B1.	1
• Identified only the one obvious problem.	2
• Identified the one obvious problem and 1 or 2 hedged problems.	3
• Identified the one obvious problem and all hedged problems.	4

B2. Using the problems you mentioned in B1, what is, according to you, the most important problem that needs to be solved? Why is it more important to solve this problem than the others you mentioned in B.1?

Criteria	Mark
• No problems identified / Do not answer B2 /Problem identified, but it does not relate with B1.	1
• Graduate identified the most important problem from B1, but does not explain why it needs to be solved or gives an explanation that does not relate to the problem. The graduate does not answer both parts of the question.	2
• Graduate identified another problem (not questionable quality), but gives thorough reasoning and acceptable reason(s) why the problem should be solved.	3
• The most important problem is the questionable quality. The graduate identifies the problem and gives an acceptable reason(s) why the problem should be solved.	4

B3. Define a problem statement for GEM Automobile.

Problem: One day, you receive a large batch of parts by a trusted supplier in the area, but you observe that the quality is questionable.

Problem statement: The quality of the products is questionable.

Criteria	Mark
• No answer given/ Do not have the ability to answer B3.	1
• The graduate showed an attempt to define a problem statement, but it is cumbersome (clumsy) or relates to another problem (not quality).	2
• The problem statement was identified and the graduate recognized it was about the quality.	3
• Problem statement is accepted, workable and relates to the problem mentioned in B2 (quality).	4

B4. Generate alternative solutions for the problem.

Criteria	Mark
• No solutions given/ Does not have the ability to answer B5.	1
• Solutions are given, but are not workable and do not relate to the problem.	2
• One or two solutions are given, but it is not clear how the solutions will solve the problem at hand.	3
• At least 2 workable solutions given.	4

B5. Evaluate the alternatives by explaining the advantages and disadvantages of the alternatives for the business.

Criteria	Mark
• No answer given/ Do not answer B5.	1
• Not all the alternatives are evaluated as mentioned in B4 or only advantages or only disadvantages are given.	2
• Graduate evaluated all the alternatives as mentioned in B4, but the graduate gives only one advantage and disadvantage.	3
• The graduate evaluated all the alternatives mentioned in B4 and gives two or more advantages and disadvantages at each alternative.	4

B6. Which alternative in B.5 is according to you the best solution for the problem? Motivate your choice.

Criteria	Mark
• No answer given/ Does not answer B6.	1
• Alternative is given, but it does not relate to B5. A new alternative solution is chosen.	2
• Graduate identified the most important alternative from B5, but does not motivate the answer or the explanation does not relate to the problem. The graduate does not answer the question completely.	3
• The best alternative is chosen from B5. The graduate identifies the problem and motivates acceptable reason(s) why the specific alternative is the best solution for the problem.	4

B7. Explain how you would implement the solution chosen in B6 and describe the influence on the business' resources (production factors).

- Human resources (Labour)
- Capital
- Entrepreneurship (Business activities)
- Natural resources

Criteria	Mark
• No answer given/ Does not answer B7.	1
• Explanation is given, but it does not relate to B6 or the graduate does not describe the influence on the business' resources.	2
• Explanation is given, but does not contribute to solving the problem of quality. Influence on resources is mentioned, but only one or two resources are explained.	3
• Explanation is given, with sufficient contribution to the consequences of implementing the problem. Graduate mentions action plans, deadlines or asking for extended delivery time. Workable and feasible. Influence on all 4 resources is mentioned and explained.	4

SECTION C – Creative problem solving (Qualitative)

This type of question is often used for graduate positions in management consultancy and investment banking. Creative questions are business problems designed not only to test your logical and analytical thinking skills, ability to solve problems but also to make you think on your

feet. Often there are no right answers to these types of questions, but they give the selector an idea of how you think, reasoning skills, how you react under pressure and your common sense.

C.1. This problem will be evaluated based on three categories, namely:

1. Alternatives
2. Reasoning (strengths, weaknesses and motivation)
3. Choose best alternative: Logic (creative)

1. Alternatives

- Drench the haystack in a colour that would make the needle easier to see.
- If the needle is made of steel, a magnet will attract the needle.
- Burn the hay off and the needle will remain.

Criteria	Mark
• No alternatives given/ Does not answer the question.	1
• One alternative is given.	2
• Two alternatives are given.	3
• Three or more alternatives are given.	4

2. Reasoning (strengths, weaknesses and motivation)

Criteria	Mark
<ul style="list-style-type: none"> No answer given. The graduate does not explain anything about how alternatives were chosen. 	1
<ul style="list-style-type: none"> Explanation is given, but it does not relate to the problem or motivation is insufficient. 	2
<ul style="list-style-type: none"> Explanation is given. The graduate made an effort to explain strengths and weaknesses, but only vaguely. 	3
<ul style="list-style-type: none"> The graduate made a very good effort to explain what motivates the alternatives and evaluate strengths and weaknesses in detail. 	4
<ul style="list-style-type: none"> No alternative is chosen. 	1
<ul style="list-style-type: none"> Graduate chooses an alternative, but does not explain anything about the choice. 	2
<ul style="list-style-type: none"> Graduate chooses an alternative, based on good logic and gives an explanation about the choice made. 	3
<ul style="list-style-type: none"> Graduate chooses an alternative. The choice made is not just the logic option, be a good sense of creative problem solving is shown. 	4

3. Choose best alternative: Logic (creative)

Criteria	Mark
<ul style="list-style-type: none"> No alternative is chosen. 	1
<ul style="list-style-type: none"> Graduate chooses an alternative, but does not explain anything about the choice. 	2
<ul style="list-style-type: none"> Graduate chooses an alternative, based on good logic and gives an explanation about the choice made. 	3
<ul style="list-style-type: none"> Graduate chooses an alternative. The choice made is not just the logic option, be a good sense of creative problem solving is shown. 	4

APPENDIX C

COMMUNICATION SKILL TEST

MEASURING TOOL FOR COMMUNICATION SKILL

This test consists of two sections. You are required to complete each section thoroughly, after reading the scenario.

SCENARIO:

GEM Automobile (Pty) Ltd is a small car manufacturing plant located in Port Elizabeth. The company was established in 2000 by George Edward Mayer.

Until recently, GEM has grown immensely in sales, brand image and the company had an excellent reputation for meeting high quality standards. But, with the immense fluctuations in the economy reflecting on increased exchange rates, inflation, interest rates and stricter trade laws, demand has decreased and GEM has tumbled a little.

GEM experiences numerous controversies and the business is suffering damage with decreased sales and a lack in better engineered and more sought after cars. Revolutionizing GEM is therefore vital and a changed approach is needed.

Meeting local and global competition, developing new markets without abandoning its core market and maintaining quality are continuous challenges for GEM.

One day, as you are surfing the internet, an interesting article catches your attention.

“Minelli announces new tire!

January 2014

Spain – Minelli, the world leading distributor of tires, announced a new product to their product range. A new tire has been developed with an electronic chip and a new sleek look. The new product range is called the “Tech Tire”. The new tire has an implanted computer chip that monitors wear, performance, damage and durability. With the use of a sensor, a program can identify when and where the tire was made and purchased (for identification and warranty), how much tread it had and the serial number of the tire. The program can also develop the tire’s life cycle and project when the tire must be replaced. Minelli is launching their product March 2014.

SECTION A – Written communication

You are the operation manager of GEM and after reading the internet article, you want to recommend the new tire to your managing director. You decide to email the article to the managing director and he replies that you should convince him to standardise these tires on all

GEM products. Compile a recommendation or justification report that will contribute to cut costs, remain competitive and lead to overall success (No more than 350 words).

SECTION B – Oral communication

As an employee of GEM, you and other employees form a group of five in order to debate a strategic meeting of the new “Tech Tire”. The group should discuss the influence of the new tire changes on the eight business functions.

- Describe the positive AND negative aspects of the new tire changes in terms of the eight business functions.
- Identify the most important function which would have an impact on the business.

APPENDIX D

COMMUNICATION SKILL ASSESSMENT RUBRIC MEASURING TOOL FOR COMMUNICATION SKILL

Analytical assessment matrix

SECTION A – Written communication

In this section, written communication will be evaluated and rated on a scale of 1 to 4 based on the 6 subdivisions.

1. Not skilled (the student shows no competency in the demonstration of this skill),
2. Substandard (the student shows competency equal to or lower than first-year university level),
3. Fairly skilled (the student shows competency equal to second-year university level),
4. Skilled (the student shows competency in demonstrating the skill)

Written communication rating scale	Rating (1-4)
<p>1. Analysis</p> <p>Covers key issues.</p> <ul style="list-style-type: none"> • Computer chip that monitors wear, performance, damage and durability • Sensor, a program can identify when and where the tire was made and purchased (for identification and warranty) • Tread • Serial number • The tire's life cycle • Project when the tire must be replaced 	1 2 3 4
<p>2. Conceptual clarity</p> <p>The content is relevant to the topic.</p>	1 2 3 4
<p>3. Structure and development</p> <p>A logical, clear sequence is followed. Proportion and emphasis is used effectively.</p>	1 2 3 4

Written communication rating scale	Rating (1-4)
<p>4. Tone/style of message</p> <p>The tone of the message, when hearing or reading the written assignment, is clear and relevant.</p>	1 2 3 4
<p>5. Business like (Technical)</p> <p>The written assignment looks and sounds like a business assignment and is formal and applicable in business terms.</p> <ul style="list-style-type: none"> • Date • To • From • Subject • Introduction (Introduces problem briefly, present recommendations) • Body <ul style="list-style-type: none"> ○ How tires work ○ Advantages/ benefits ○ Disadvantages • Summary/ action 	1 2 3 4
<p>6. Grammar, spelling and sentence construction</p> <p>Professional presentation of the assignment. No spelling and grammar mistakes. (Remove a rating mark for an error).</p>	1 2 3 4

SECTION B – Oral communication

In this section, oral communication will be evaluated and rated on a scale of 1 to 4 based on the 6 subdivisions.

1. Not skilled (the student shows no competency in the demonstration of this skill),
2. Substandard (the student shows competency equal to or lower than first-year University Level),
3. Fairly skilled (the student shows competency equal to second-year University Level),
4. Skilled (the student shows competency in demonstrating the skill)

Oral communication rating scale	Rating (1-4)
1. Vocabulary <ul style="list-style-type: none"> • Words used are appropriate to the audience • Language choices are compelling and enhances the effectiveness of what is said • Graduate speaks in a business-like manner 	1 2 3 4
2. Listening skills <ul style="list-style-type: none"> • The graduate listens to everything that is said in the team • Respects others • Uses ideas to develop new ones (piggy backing). 	1 2 3 4
3. Oral delivery <ul style="list-style-type: none"> • Clear voice • Correct, precise pronunciation of words • Everything can be heard (Do not mumble) 	1 2 3 4
4. Non-verbal and verbal correlation <ul style="list-style-type: none"> • The body language correlates with the message that is delivered. 	1 2 3 4
5. Delivers message convincing <ul style="list-style-type: none"> • Delivery techniques (eye contact, posture, gesture) • Graduate appears polished and confident 	1 2 3 4
6. Managing of conflict <ul style="list-style-type: none"> • Graduate deals with conflict in a positive manner • Listens to what others say and do not interrupt them • Graduate avoids conflict 	1 2 3 4

APPENDIX E

TEAMWORK SKILL TEST

MEASURING TOOL FOR TEAMWORK SKILL

This test consists of two sections. You are required to complete each section thoroughly.

SECTION A – Teamwork skill

This section is combined with the communication skill. Experts will evaluate graduates based on the assignment in Section B - Oral communication.

From: Measuring tool for communication skill:

SECTION B – Oral communication

As an employee of GEM, you and other employees form a group of five in order to debate a strategic meeting of the new “Tech Tire”. The group should discuss the influence of the new tire changes on the eight business functions.

- Describe the positive AND negative aspects of the new tire changes in terms of the eight business functions.
- Identify the most important function which would have an impact on the business.

SECTION B – Graduate self-assessment sheet

After performing the teamwork task, complete the following sheet individually, by rating yourself.

		1- Never	2- Rarely	3- Sometimes	4 - Always
Teamwork skills					Rating (1-4)
1. Participating	I contribute to the team assignment. I am actively involved with the work.				1 2 3 4
2. Questioning	I ask questions in my team to understand the goal of the project and to explore further thinking.				1 2 3 4
3. Listening	I listen to everything said in my team and uses ideas to help develop new ones (piggy-backing).				1 2 3 4
4. Communication	I communicate with my team members and I share my ideas and thinking with the team.				1 2 3 4
5. Conflict	I try to avoid conflict in the team and when conflict arises, I respond positively to conflict.				1 2 3 4
6. Leadership	I keep the team on track and foster a constructive team climate.				1 2 3 4
7. Respecting	I respect all the opinions in my team and I praise other good ideas and thinking.				1 2 3 4
8. Persuading	I exchange ideas, defend my own ideas and explain my ideas to the team.				1 2 3 4
9. Adaptability	I adapt to team choices and team work ways. I am able to work with the team.				1 2 3 4
10. Helping	I help my team with struggles and problems and I offer my assistance.				1 2 3 4
11. Responsibility	I accept responsibility within the team and I work hard to do my best with my task.				1 2 3 4
12. Individual	I contribute in the team. I have relevant knowledge, skills and abilities to offer in the team.				1 2 3 4
13. Diversity	I use a diverse environment to build a strong team and I can work with different individuals.				1 2 3 4
14. Creativity	I am open-minded and my ideas are original. I also encourage originality rather than the same thing every time.				1 2 3 4
15. Evaluating	I evaluate the team performance and I expect quality work.				1 2 3 4

APPENDIX F

TEAMWORK SKILL ASSESSMENT RUBRIC

MEASURING TOOL FOR TEAMWORK SKILL

Analytical assessment matrix

SECTION A – Observation from expert

In this section an expert will observe the team functioning and rate the team on a scale from 1 to 4 based on the 15 subdivisions.

1. Never
2. Rarely
3. Sometimes
4. Always

SECTION B – Graduate self-assessment sheet

Graduates complete the provided sheet individually, by rating themselves.

1. Never
2. Rarely
3. Sometimes
4. Always

Teamwork skills		Rating (1-4)
1. Participating	I contribute to the team assignment. I am actively involved with the work.	1 2 3 4
2. Questioning	I ask questions in my team to understand the goal of the project and to explore further thinking.	1 2 3 4
3. Listening	I listen to everything said in my team and uses ideas to help develop new ones (piggy-backing).	1 2 3 4
4. Communication	I communicate with my team members and I share my ideas and thinking with the team.	1 2 3 4
5. Conflict	I try to avoid conflict in the team and when conflict arises, I respond positively to conflict.	1 2 3 4

Teamwork skills		Rating (1-4)
6. Leadership	I keep the team on track and foster a constructive team climate.	1 2 3 4
7. Respecting	I respect all the opinions in my team and I praise other good ideas and thinking.	1 2 3 4
8. Persuading	I exchange ideas, defend my own ideas and explain my ideas to the team.	1 2 3 4
9. Adaptability	I adapt to team choices and team work ways. I am able to work with the team.	1 2 3 4
10. Helping	I help my team with struggles and problems and I offer my assistance.	1 2 3 4
11. Responsibility	I accept responsibility within the team and I work hard to do my best with my task.	1 2 3 4
12. Individual	I contribute in the team. I have relevant knowledge, skills and abilities to offer in the team.	1 2 3 4
13. Diversity	I use a diverse environment to build a strong team and I can work with different individuals.	1 2 3 4
14. Creativity	I am open-minded and my ideas are original. I also encourage originality rather than the same thing every time.	1 2 3 4
15. Evaluating	I evaluate the team performance and I expect quality work.	1 2 3 4

APPENDIX G

SELF-MANAGEMENT SKILL TEST AND ASSESSMENT

MEASURING AND ASSESSMENT TOOL FOR SELF-MANAGEMENT SKILL

This test consists of four sections. Each section should be answered.

SECTION A – Self-awareness and development

- Goals
 - Emotions
 - Strengths and weaknesses
 - Continuous self-development
1. Do you set appropriate life and career goals?
 - a. Life (family, friends)
 - b. Career (develop myself, have a good work)
 - c. How often
 2. If you are unhappy about something that happened in your group, can you speak truthfully and openly about your emotions or would you rather avoid the subject?
 - a. How?
 - b. Example?
 3. If you feel unhappy or excited after a situation that occurred, do you recognize and understand your own emotions or don't you know what you experience and feel?
 4. How do you react when people tell you that your actions are wrong and they want you to act in another manner (reaction to constructive criticism)
 - a. Yes, positively and how?
 - b. No, don't like it and why?
 5. If you are working in a group, would you act proactively and seek information about your strengths and weaknesses from others as a base of self-improvement? Or do you just get the task done?
 6. If someone tells you about your weaknesses, would you assess their comments or would you just ignore it? Do you assess your strengths and weaknesses?

-
7. Do you strive to continuously better your own skills and qualifications (maybe after honours) and what do you do or what do you see yourself doing in future to improve yourself?
 8. Do you take calculated risks? If you experience a challenge that you know might be difficult to perform, what would you do? If risks occur, how would you handle the risks?

SECTION B – Balancing work/life issues

- Balance
 - Exercise and eat
 - Stress and tension
1. Do you strike a reasonable balance between work and other life activities?
 - a. How?
 2. What activities do you do other than study?
 3. Do you combine study with your other responsibilities (like doing assignments, preparing for class, being on time, actually going to class AND cleaning your flat, competing in sport, going to hostel meetings and attending and contributing in committees at the university.
 4. Do you exercise regularly?
 - a. How often?
 - b. Do you maintain a program of regular exercise for fitness
 5. Do you manage frustration and reduce stress?
 - a. How?
 - b. What do you do when you experience a lot of stress with university tasks or a test you should do?

SECTION C – Goal setting

- Goals on long term, short term, shorter term
 - Deadlines
 - Realistic
1. Do you have goals for yourself? Give an example? SMART?

-
2. Do you set goals for the short term (1 year)?
 3. Do you set goals for the long term (5 years)?
 4. If you want to achieve different thing within the following few days, what do you do? (I set goals for the next few days for what I want to achieve with my time)
 5. I have deadlines for accomplishing my goals
 - a. What do I do to reach deadlines?
 - b. What if I can't make a deadline?
 6. Do you think you can reach your goals? Do you set realistic and achievable goals)

SECTION D – Time management

- To-do lists
 - Prioritizing tasks
 - Diary
 - 1 activity at a time
 - Time wasters
1. What methods do you use to effectively manage time? (such as keeping track of my time, making to-do lists and prioritising tasks)
 2. I frequently affirm my priorities so that less important things don't drive out more important things
 - a. How?
 - b. What if two activities are equally important and I can't choose?
 3. How do you stick to your time schedule? (I actively consider steps I need to take)
 4. What do you use to plan your days? (I consult my planner to see how much time I have left for the next few days)
 - a. How often?
 5. What emotions do you experience when you have your time planned out for the next few days?
 6. Do you do one activity at a time and finish it or all at one time?
 7. Time wasters

- a. Examples
- b. How do I handle them?

APPENDIX H

AFRIKAANS QUOTES FOR INTERVIEWS

Tabel 5.25: Deelnemers se terugvoer in terme van hul doelwitte

Tema	Nommer	Deelnemers se direkte woorde
Stel van doelwitte	(1)	<ul style="list-style-type: none"> ... ek sou nie sê ek het doelwitte vir my lewe of my toekoms nie. ... ek het nie regtig lewensdoelwitte nie.
Loopbaan-doelwitte	(2)	<ul style="list-style-type: none"> ... ek wil my eie besigheid oopmaak. ... ek gaan vir my pa werk. ... ek wil graag boer as ek klaar geswot het. ... ek wil in 'n bestuurposisie op eindig.
Lewens-doelwitte	(3)	<ul style="list-style-type: none"> Ek moet 'n beter vriendin wees. Ek wil eers gaan toer, ek wil nie in 'n kantoor gaan sit nie... wil net "fun" hê.

Tabel 5.26: Deelnemers se terugvoer in terme van hul emosionele welstand

Tema	Nommer	Deelnemers se direkte woorde
Praat eerlik en openlik	(1)	<ul style="list-style-type: none"> ...as daar konflik is praat ons dit dadelik uit... ons <i>compromise</i> maklik met mekaar. ...ons kom almal goed oor die weg, werksverband, maar ek sukkel om konflik op te los. Ek sal my mening lig, maar ek sal liever die vrede bewaar.
Verstaan emosies	(2)	<ul style="list-style-type: none"> ... ek verstaan my emosies. Ek is verseker bewus van my emosies.
Reaksie tot kritiek	(3)	<ul style="list-style-type: none"> ...Ek het al geleer om kritiek te hanteer, want ek kon nie. ...Dis nie wat jy sê nie, maar hoe jy dit sê. ...hang af van wie dit sê, hoe hulle dit sê...verskoning vra en die probleem oplos so vinnig as moontlik. ...nie baie goed met kritiek nie...ek is baie sensitief.

Tabel 5.27: Participants' responses regarding their strengths and weaknesses

Tema	Nommer	Deelnemers se direkte woorde
Proaktief teenoor die taak klaar kry	(1)	<ul style="list-style-type: none"> ...ek is 'n vinnige pas mens, as ek voel dis bietjie onnodig, doen ek dit sodat dit kan klaarkom. ...ek kry net die taak gedoen. ...wil dit doen en klaarkry, sodat ek die volgende ding kan doen. ...ek gaan nie my tyd mors op iets wat dalk <i>useless</i> is nie.
Assesseer sterk- en swakpunte	(2)	<ul style="list-style-type: none"> ...ek hou baie van kommentaar, sodat ek myself kan verbeter. ...as iemand vir my sê, luister dit is waarin jy goed is of ek dink jy kan daaraan werk... ek sal dit nogals waardeer. Ek sal meer daarop fokus om ander mense se opinies te vra.

Tabel 5.28: Deelnemers se terugvoer in terme van volhoubare self ontwikkeling

Tema	Nommer	Deelnemers se direkte woorde
Volhoubare ontwikkeling	(1)	<ul style="list-style-type: none"> ...wil 'n MBA doen. Nog vaardighede aanleer. Tegnologies dink ek moet ek verseker verbeter. Besef hoe min ek weet, so ek sal nooit ophou leer nie.
Berekende risiko's	(2)	<ul style="list-style-type: none"> Ek sal navorsing gaan doen wat is die risiko's en wat is die uitkomstes. Doen dit net! Daar moet tekens wees, al is dit net 'n 10% kans dat dit gaan werk. Ek hou nogals van veiligheid. Dit is een ding van my, ek is bang vir risiko's. Ek is 'n impulsiewe mens, maar verantwoordelik impulsief... ek sal 'n risiko wil vat, want ek's lief vir 'n uitdaging.

Tabel 5.29: Deelnemers se terugvoer in terme van die balans tussen hul studies en ander verantwoordelikhede

Tema	Nommer	Deelnemers se direkte woorde
Balans	(1)	<ul style="list-style-type: none"> Wanneer ek werk, werk ek en wanneer ek speel, speel ek. Ek is 'n perfeksionis... as ek nie baie tyd het nie, is die werk nie van hoë gehalte nie... ek raak gou geïrriteerd. Dit is baie moeilik om 'n balans te tref. <i>Work hard, play hard</i> senario.
Ander aktiwiteite	(2)	<ul style="list-style-type: none"> Kitaar. Netbal, draf, fliek. Swot, werk en gym. Werk by leeslab, werk by 'n maatskappy.

Tema	Nommer	Deelnemers se direkte woorde
Studie en ander verantwoordelikhede	(3)	<ul style="list-style-type: none"> • Ek spandeer meer tyd aan my werk as aan my sosiale lewe. • Ek is te besig met akademie... onttrek maar myself van sekere goed...

Tabel 5.30: Deelnemers se terugvoer in terme van hul vaardigheid om spanning en stres te hanteer

Tema	Nommer	Deelnemers se direkte woorde
Hoe hulle stres hanteer	(1)	<ul style="list-style-type: none"> • As jy beter beplan, sou jy nie so gestres het nie. • Ek hanteer my stres en dink nie te veel daaraan nie.
Kanaliserings van stres	(2)	<ul style="list-style-type: none"> • Ek rook, speel kitaar of luister na musiek. • Ek draf. • Ek slap. • Ek is 'n emosionele eter en eet as ek stres. • Ek gaan kuier by my vriende.

Tabel 5.31: Deelnemers se reaksie in terme van lang-, kort- en korter termyn doelwitte

Tema	Nommer	Deelnemers se direkte woorde
Het jy doelwitte	(1)	<ul style="list-style-type: none"> • ...partykeer... ek praat baie met myself...doelwitte bly in my kop... ek is nie rêrig iemand wat neerskryf en kyk daarna nie. • Nie vaste doelwitte nie... nee ek sal sê ek hoop maar net...
Korttermyn doelwitte	(2)	<ul style="list-style-type: none"> • My take betyds ingee... • Wil goeie werk hê, bestuurspos, bemarkingsveld. • Verseker om my Honneurs klaar te maak... werk kry...
Langtermyn doelwitte	(3)	<ul style="list-style-type: none"> • Wil meer as een besigheid op my naam hê. • Persoonlik... wil baie graag eendag die <i>Two Oceans</i> Maraton gaan hardloop. • Nie-winsgewende maatskappy... want in plaas van net om diere te help om huise te hê, hulle te rehabiliteer. • Wil bietjie standvastigheid hê... bietjie oorsee gaan... dan 'n roetine volg... my eerste goed besit, soos my eerste huis en my eerste kar. • ...my studieskuld afbetaal.

Tabel 5.32: Deelnemers se terugvoer in terme van sperdatums

Tema	Nommer	Deelnemers se direkte woorde
Bereiking van sperdatums	(1)	<ul style="list-style-type: none"> • Ek sal dit nie meer uitstel tot die aand voor die tyd nie... doen die taak as ek hom kry. • Ek breek die werk op 'n in stukkie.
Voldoening aan sperdatums	(2)	<ul style="list-style-type: none"> • Ek sal prioritiseer. • Ek sal eerder 'n opdrag <i>afrush</i> en 'n swakker opdrag ingee, maar ek sal nie niks ingee nie. • Doen wat jy kan, dis beter om iets in te gee as niks nie. Doen eerder 'n halwe behoorlike werk.

Tabel 5.33: Deelnemers se terugvoer in terme van realistiese doelwitstelling

Tema	Nommer	Deelnemers se direkte woorde
Realistiese doelwitte	(1)	<ul style="list-style-type: none"> • ...as mens doelgerig is en jy weet wat jy wil bereik sal jy daarby uitkom.

Tabel 5.34: Deelnemers se terugvoer in terme van om-te-doen lysies

Tema	Nommer	Deelnemers se direkte woorde
Om-te-doen lysies	(1)	<ul style="list-style-type: none"> • Ek is verskriklik verstrooid, so ek moet lysies maak. • Ek hou goed nog in my kop... • Ek gebruik nie regtig 'n jaarbeplanner waar ek alles neerskryf nie... ek hou alles in my kop... • Ek het kalenders op my muur waarop ek elke dag neerskryf wat ek moet doen.

Tabel 5.35: Deelnemers se terugvoer in terme van die prioritering van take

Tema	Nommer	Deelnemers se direkte woorde
Prioritering van take	(1)	<ul style="list-style-type: none"> • Ek sal kyk watter een se deadline is eerste...wissel af totdat altwee klaarkom. • ...ek is 'n <i>people pleazer</i>, so die een wat vir ander mense ook voordele gaan hê sal ek eerste afhandel. • Onderskei tussen wat is belangrik en wat is dringend. • Ek sal vra vir uitstel as ek nie by alles uitkom nie. • Ek werk nie volgens 'n plan nie. • Die taak wat ek die vinnigste kan afhandel sal ek eerste doen.

Tabel 5.36: Deelnemers se terugvoer in terme van die gebruik van 'n dagboek

Tema	Nommer	Deelnemers se direkte woorde
Gebruik van 'n dagboek	(1)	<ul style="list-style-type: none"> • Ek stel lyste op van wat ek moet doen wat ek dag vir dag afmerk... • ...my dagboek is glad nie georden en logies nie, maar dit maak vir my sin. Ek weet wat ek wanneer moet doen. • Ek het hierdie jaar eers die ure begin gebruik soos dit in die dagboek staan. • My dagboek werk nie vir my so lekker nie...
Metode	(2)	<ul style="list-style-type: none"> • 'n Dagboek. • Selfoon. • Ek het 'n maandkalender....

Tabel 5.37: Deelnemers se terugvoer in terme van die doen van een aktiwiteit op 'n slag

Tema	Nommer	Deelnemers se direkte woorde
Een aktiwiteit op 'n slag	(1)	<ul style="list-style-type: none"> • Ek sal kyk watter een se <i>deadline</i> is eerste...wissel af totdat altwee klaarkom. • Kyk watter een is die minste en watter een is die meeste tyd gaan vat. • Ek hou daarvan om een ding op 'n slag te doen.

Tabel 5.38: Deelnemers se terugvoer in terme van tyd plunderaars

Tema	Nommer	Deelnemers se direkte woorde
Tyd plunderaars	(1)	<ul style="list-style-type: none"> • Facebook. • ...tydmors om in die verkeer te sit. • Fliiek... • Rekenaarspeletjies. • Slaap en vriende. • Om afhanklik te wees van ander mense.

APPENDIX I

STATISTICAL CONSULTATION SERVICE



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Statistical Consultation Services

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17 Oktober 2014

To whom it may concern

RE: DISSERTATION OF MS M GEEL (STUDENT NUMBER: 21622620)

We hereby confirm that the Statistical Consultation Services of the North-West University has analysed the data and assisted with the interpretation of the results of the dissertation of Ms M Geel (student number: 21622620).

However, any opinion, findings or recommendations expressed in this document are those of the author and Statistical Consultation Services of NWU (Potchefstroom Campus) does not accept responsibility for the correctness of the reporting of results.

Yours sincerely

Wilma Breytenbach

MSc
Senior subject specialist

APPENDIX J

LETTER OF CONFIRMATION OF LANGUAGE EDITING

November 10, 2014



TO WHOM IT MAY CONCERN

Re: Letter of confirmation of language editing

The dissertation "An investigation into the employability skills of undergraduate Business Management students" by Marlé Geel (21622620) was language, technically and typographically edited. The sources and referencing technique applied was checked to comply with the specific Harvard technique as per North-West University prescriptions. Final corrections as suggested remain the responsibility of the student.

A handwritten signature in black ink, appearing to read 'Antoinette Bisschoff'.

Antoinette Bisschoff

Officially approved language editor of the NWU since 1998
Member of SA Translators Institute (no. 100181)

APPENDIX K

TITLE CONFIRMATION AND TECHNICAL EDITING



Me-M-Geel
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M-en-D-Afdeling
 Tel: 018 299 2640
 Epos: marise.duplessis@nwu.ac.za

28 Oktober 2014

Geagte Me-Geel

REGISTRASIE VAN GEWYSIGDE TITEL: MCom Ondernemingsbestuur

Die Fakulteitsraad van Ekonomiese en Bestuurswetenskappe het op die jongste vergadering u titel soos volg goedgekeur:

An Investigation into the employability skills of undergraduate Business Management students

Let asseblief daar op dat bogenoemde titel glad nie verander mag word, sonder dat u daarvoor met u studieleer/promotor oorleg gopleeg het en die goedkeuring van die Fakulteitsraad verkry is nie.

Volgens die Handleiding vir Nagraadse Studie (2010) vind Kennis van Indiening nader aan die einde van u studie plaas. Indien u wil Indien, moet u dit asseblief met u studieleer bespreek. Met die goedkeuring van u studieleer moet u asseblief DRIE maande voor u beplan om in te dien, kennis gee op die voorgeskrewe Kennis van Indieningvorm. Die vorm is beskikbaar by die M-en-D afdeling of by u Fakulteit se Administratiewe Bestuurder.

Indieningsdatums van kopleë vir eksaminering:

- 13 Oktober tot 14 November 2014 om vir Mei 2015 se gradeplegtigheid te kwalifiseer;
- 30 Maart tot 30 April 2015 om vir September 2015 se gradeplegtigheid te kwalifiseer.

Indien u na 14 November 2014 Indien, bestaan die moontlikheid dat u nie kwalifiseer vir die Mei 2015 gradeplegtigheid nie. U sal dan vir die nuwe jaar moet registreer, om sodoende vir September 2015 se gradeplegtigheid in aanmerking te kom.

U

U aandag word gevestig op die volgende publikasies/webadresse:

1. A-reëls: http://www.nwu.ac.za/webfm_send/57625
2. Handleiding vir Nagraadse Studier: http://www.nwu.ac.za/webfm_send/46199

'n Aangename en suksesvolle studietydperk word u toegewens.

U

Vriendelike groete

Marise du Plessis
 VIR KAMPUSREGISTRATEUR

APPENDIX L

TECHNICAL EDITING

TO WHOM IT MAY CONCERN

Herewith the undersigned confirm that the thesis titled

" An Investigation into the employability skills of undergraduate Business Management students by Marlé Geel"

has been checked and corrected technically which includes the layout of the text as well as the aspects of the contents.

EP Beukes & E Oosthuizen
November, 2014