

**A FRAMEWORK FOR EMPLOYABILITY SKILLS OF
CONSUMER SCIENCE GRADUATES**

by

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It always seems impossible, until it's done – Nelson Mandela

DECLARATION

I hereby declare that the compilation of this dissertation is the result of my own independent investigation. I have endeavoured to use the research sources cited in the text in a responsible way and to give credit to the authors and compilers of the references for the information provided, as necessary. I have also acknowledged those persons who have assisted me in this endeavour. I further declare that this work is submitted for the first time at this University and Faculty for the purpose of obtaining a Philosophiae Doctor degree in Health Professions Education and that it has not previously been submitted to any other university or faculty for the purpose of obtaining a degree. I also declare that all information provided by study participants will be treated with the necessary confidentiality.

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DEDICATION

I dedicate this thesis to my loving parents. For always believing in me, their big dreams, encouraging me to reach more than I thought ever possible and most important, for praying for me every day. You inspire me to be a better me.

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**Praise the Lord! Oh give thanks to the Lord, for he is good,
for his steadfast love endures forever!**

Psalm 106:1

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LIST OF ACRONYMS

AHEA:	The American Home Economics Association
DUT:	Durban University of Technology
CATME:	Comprehensive Assessment of Team Member Effectiveness
CPUT:	The Cape Peninsula University of Technology
CV:	Curriculum Vitae
ICT:	Information, Communication and Technology
LGD:	Leaderless Group Discussions
MANOVA:	Multivariate Analysis of Variance
NSC:	National Senior Certificate
NWU:	The North-West University
PBL:	Problem-based Learning
PjBL:	Project-based Learning
SPSS:	Statistical Package for Social Sciences
TBL:	Team-based Learning
TSI:	Teamwork Skills Inventory
UFS:	University of the Free State
UK:	United Kingdom
UNISA:	University of South Africa
UP:	University of Pretoria
US:	United States
VALUE:	Valid Assessment of Learning in Undergraduate Education
WIL:	Work integrated Learning

SELECTED DEFINITIONS AND TERMS

Academic knowledge/skills: Properties or knowledge of an individual that is measurable; for example, by writing a test (Hughes, Moore & Baily 1999:8).

Conceptual framework: Can be defined as bringing together different concepts to explain or help understand a specific research problem (Imenda 2014:189).

Employable: Having certain qualities that are valued by employers (Nickson, Warhurst, Commander, Hurrell & Cullen 2012:67).

Employability skills: Certain qualities, skills and knowledge an individual should have to increase the probability of being effective/successful in the workplace, benefiting themselves, their employer and the economy (Martin, Villeneuve-Smith, Marshall & McKenzie 2008a:8).

EvaSys: An internet-based survey management programme to help distribute surveys and gather research data.

Service learning (SL): Integrating community service (which benefits the students and communities) as part of students' learning experience (Roofe *et al.* 2015:42).

Soft skills: Personal characteristics of an individual other than technical skills or theoretical/academic knowledge; for example, good communication skills, being flexible, having integrity, being professional, having work ethic and being able to work in a team (Binkley, Erstad, Herman, Raizen, Ripley, Miller-Ricci & Rumble 2012:17-67; Kar 2011:36,38,41,42; Robles 2012:455).

Technical skills: The knowledge and ability to perform a specific task or use specific equipment (Shepherd, Braham & Elston 2010:3).

Theoretical framework: Provides guidance for the researcher and indicates the domains of the research topic that the study will investigate (Imenda 2014:187,188,189).

Work integrated learning (WIL): Student employment related to students' particular field which gives them the opportunity to apply theory to practice (Kramer & Usher 2011:2).

SUMMARY

Keywords: Graduate attributes, employability, employability skills, Consumer Sciences, teaching strategies, assessment methods

With the high graduate unemployment rate in South Africa, universities are realising the importance of delivering students with employability skills to attain employment and succeed in the work environment. A gap in the literature was identified, since no framework could be found that described the employability skills that consumer science employers require from employees. Hence, this study aims to construct a framework regarding the employability skills of consumer science graduates, including the teaching and learning strategies and assessment methods which can be used to ensure that graduates have mastered the needed skills.

In order to reach the aim of this study, a mixed methods approach was followed. During the first phase of the study, questionnaire surveys were completed by consumer science employers, graduates, lecturers and students to determine which skills consumer science graduates need when entering the workplace. During this phase, 11 essential employability skills of consumer science graduates were identified and investigated.

The second phase of the study comprised of focus group discussions with consumer science lecturers to determine the teaching and learning strategies that must be used to enhance the identified employability skills, as well as the assessment methods which must be used to ensure students have obtained the required skills. It was found that a variety of strategies can enhance the attainment of employability skills.

The gap in literature was filled by constructing a framework of employability skills for consumer science graduates. This framework can be implemented by consumer science lecturers aiming to enhance the employability skills of consumer science graduates. This outcome can be beneficial for the university delivering more employable graduates as well as the industry who will receive more skilled employees.

OPSOMMING

Sleutelwoorde: Eienskappe van gegradueerdes, indiensneembaarheid, indiensneembaarheidvaardighede, Verbruikerswetenskappe, onderrig-strategieë, assesseringsmetodes

Met die hoë werkloosheidsyfer van gegradueerdes in Suid-Afrika, begryp universiteite die belangrikheid daarvan om studente te lewer met indiensneembaarheidsvaardighede om werk te bekom asook in die werksomgewing te slaag. Die gebrek aan 'n raamwerk wat aandui watter indiensneembaarheidsvaardighede werkgewers van hul verbruikerswetenskappe-werknemers verwag, veroorsaak 'n gaping in die literatuur. Gevolglik is hierdie studie se doel om 'n raamwerk met betrekking tot die indiensneembaarheidsvaardighede van verbruikerswetenskappe-gegradueerdes te ontwikkel. So 'n raamwerk sal ook onderrig-leerstrategieë en assesseringsmetodes wat gebruik kan word om te verseker dat studente die nodige vaardighede bemeester, insluit.

Om die doel van hierdie studie te bereik, is 'n gemengde-metodebenadering gevolg. Tydens die eerste fase van die studie is vraelyste deur verbruikerswetenskappe-werkgewers, gegradueerdes, dosente en studente voltooi om te bepaal watter vaardighede verbruikerswetenskappe-gegradueerdes nodig het wanneer hulle die werkplek betree. Gedurende hierdie fase is 11 essensiële indiensneembaarheidsvaardighede van verbruikerswetenskappe-gegradueerdes geïdentifiseer en ondersoek.

Die tweede fase van die studie bestaan uit fokusgroepbesprekings met verbruikerswetenskappe-dosente om onderrig-leerstrategieë wat die geïdentifiseerde indiensneembaarheidsvaardighede verbeter, asook assesseringsmetodes om te verseker dat studente die nodige vaardighede verwerf het, te identifiseer. Die studie het bevind dat 'n verskeidenheid strategieë die verwerwing van indiensneembaarheidsvaardighede kan bevorder.

Die gaping in literatuur is gevul deur 'n raamwerk van indiensneembaarheidsvaardighede vir verbruikerswetenskappe-gegradueerdes saam te stel. Hierdie raamwerk kan deur verbruikerswetenskappe-dosente geïmplementeer word, gerig op die bevordering van indiensneembaarheidsvaardighede van verbruikerswetenskappe-gegradueerdes. Hierdie uitkoms kan voordelig wees vir die universiteit wat meer gegradueerdes met indiensneembaarheidsvaardighede gaan lewer en ook vir die industrie wat hierdie werknemers met beter vaardighede sal ontvang.

A FRAMEWORK FOR EMPLOYABILITY SKILLS OF CONSUMER SCIENCE GRADUATES

CHAPTER 1

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

In this research project, an in-depth study was done by the researcher with a view to develop a framework regarding employability skills of consumer science graduates, including the teaching strategies and assessment methods that could be used by lecturers to ensure that students have mastered the identified skills. Graduates need curriculum specific academic and technical skills (Marais, Marais, Visser, Boome & Taylor 2012:29). However, in the current challenging economic and rapidly changing global environment (Fallon 2013:6; Fallows & Steven 2000:75; Helyer & Lee 2014:368), enhancing graduate employability prospects and career success requires ensuring that graduates attain other skills to enhance their success as employees (Singh & Singh 2008:16; Messum, Wilkes & Jackson 2011:23). These skills are referred to as employability skills (Wellman 2010:910). Employability skills enhance graduate employability, helping them thrive in their desired careers (Singh & Singh 2008:16; Wye & Lim 2009:96).

Although literature regarding employability skills is widely available (Ghannadian 2013:40; Pool & Sewell 2007:277) limited research regarding employability skills of consumer science graduates could be found. Even though some studies have indicated the employability skills employers require, it would seem that graduates may not have these skills (Symanowitz 2013:online). Assessment frameworks that list the skills graduates should have only mention the different skills students require to graduate and lack information on skills relating to employability or the teaching of these skills, and do not focus only on consumer science graduates (Binkley *et al.* 2012:33). In South Africa there is no national board for consumer sciences prescribing compulsory skills or competencies.

This study can help consumer science graduates to increase their employability prospects and career success by empowering lecturers in terms of which employability skills they should develop in undergraduate students. Since these skills are not easily taught in higher education (Goodwin, McDonald, Perkins, Wignall, Gale, O'Callaghan, Murray, McGraw,

Redman & Hopwood 2012:12) this study will also focus on teaching and assessment strategies for employability skills. Universities are pressured to increase graduate employability (Jameson, Strudwick, Bond-Taylor & Jones 2012:26) and by knowing which skills are needed, as well as how to teach and assess these skills, both students and the university will benefit through increasing the quality standards of their degrees (Oria 2012:227).

The aim of Chapter 1 is to orientate the reader regarding this study. This chapter firstly provides the background to the research problem followed by the problem statement, research questions, overall goal, aim and objectives of the study. The demarcation of the field and scope of the study is explained as well as the significance and value thereof. A concise overview of the research design, methods and implementation of the findings are presented. To conclude this chapter, a layout of the subsequent chapters is given followed by a summative conclusion.

1.2 BACKGROUND TO THE RESEARCH PROBLEM

High unemployment levels are a worldwide concern (Symanowitz 2013:online). With approximately 4.6 million individuals looking for work at the beginning of 2013 in South Africa (Statistics South Africa 2013:online), it follows that students cannot just assume they will be employed after graduation. An article in the City Press (2012:online) during June 2012 revealed that almost 60 000 graduates in South Africa are unemployed. Appallingly, Statistics South Africa (2016:online) indicated that during October to December 2016 the amount of unemployed South Africans with a tertiary qualification was 451 000.

However, companies looking to recruit new employees complain that they struggle to find applicants with the required attributes for jobs offered and blame the education system for failing to equip students with the right skills (Symanowitz 2013:online). Graduates need to develop a further set of skills in addition to academic knowledge to be employable (Shah, Pell & Brooke 2004:9).

Employability does not merely imply gaining employment (Pool & Sewell 2007:278). Employers view employability as a character trait of an individual (McQuaid & Lindsay 2005:199). Skills, knowledge and understanding that graduates gain during their studies, and whether or not their new employment requires them to use the above-mentioned, as opposed to taking any job just to overcome financial responsibilities, must be considered

(Pool & Sewell 2007:278). Consequently, employability includes having certain skills, knowledge, understanding and personal characteristics to help a person choose and secure a satisfying and successful career that benefits themselves and their employers (Pool & Sewell 2007:280; Rae 2007:607).

Since there are hardly any routine tasks in the workplace anymore (Fallon 2013:6) employers are demanding creative problem solvers (Robertson & Blackler 2006:215) who are able to communicate effectively, work in teams, have a desire to learn and are willing to work hard (Taylor 2005:204). This is confirmed in a study by Mosenson and Fox (2011:66) who found that skills such as critical thinking and problem solving, information literacy and communication, leadership and collaboration skills as well as career and life management are seen as critical traits for students seeking a successful career.

There are various sources available in the literature regarding the above-mentioned skills, referred to as soft skills (Robles 2012:460), 21st century process skills (Mosenson & Fox 2011:66), applied skills (Gewertz 2007:online), basic skills (Taylor 2005:204), foundation skills (Mosenson & Fox 2011:66) or just "skills required of graduates" (Ghannadian 2013:41). However, since these skills increase the chances of employment, this study refers to the term employability skills (Rao 2012:50).

Even though there are no clear definitions for employability skills (Joubert, Krüger, Bergh, Pickworth, Van Staden, Roos, Schurink, Du Preez, Grey & Lindeque 2006:28), and the description of employability skills will differ slightly according to each profession's needs, employability skills can be seen as a mix of skills, attributes and behaviour needed to pursue, gain and sustain employment (Martin *et al.* 2008a:13).

While each profession's needs differ, literature stating that graduates need employability skills is found in different fields of study (Ghannadian 2013:44; Knobbs & Grayson 2012:307; Yadin 2012:17,22). Therefore, even though this study focused on consumer science graduate employability skills, the results may also be applicable to other fields of study.

The consumer sciences degree was formerly known as Home Economics, which started to change globally to consumer sciences after the mid-1980s due to the focus of the degree being primarily consumer studies (Bailey 2010:244; Duncan 2011:404). Consumer sciences includes different fields, namely food, nutrition, housing, interior design, apparel, textiles,

resource management - all with the aim of serving and enhancing the well-being of individuals, families and communities (Duncan 2011:391). The degree is interdisciplinary and students work in different fields after graduation - varying from careers in fashion, as product developers, food scientists and consultants. In addition, when applying for jobs, consumer science graduates compete with graduates with different degrees and they need to stand out in order to secure the jobs they desire.

Different brochures and websites marketing consumer sciences at various universities indicate the skills that will be acquired through the curriculum (UK Centre for Bioscience 2014:online). Although these skills include different employability skills, research regarding the specific employability skills consumer science employers require could not be found (cf. 1.3). However, an article was published in 2015 regarding a study done in Mexico where the National Association of State Administrators of Family and Consumer Sciences National Standards was listed and employers had to indicate the importance of each component. Nevertheless, the article was published after the data gathering of this study and focuses on the family and consumer sciences curriculum in the United States (US) and their specific national standards (Dozier 2015:20). Another example from the literature that focuses on an issue similar to the research problem described here is found in an article from the US written by Mosenson and Fox (2011:63). The authors compiled a 21st century Process Skills Model. According to Mosenson and Fox (2011:63) the identified skills will lead to student achievement and lifelong learning and can be applied in middle- or high schools or universities. Four main skill areas were included in the model: Thinking and problem solving skills, information literacy and communication skills, leadership and collaboration skills and career and life management skills. Although the above-mentioned skills correspond with the employability skills described by literature, the model was compiled by combining a general skills framework with National Standards of Family and Consumer Sciences in the US. It was primarily constructed for the United States school curriculum and does not focus on the needs of employers (Mosenson & Fox 2011:65).

Research regarding the needs of the South African consumer science graduate employer as well as whether or not consumer science students are in possession of these skills has not been done. It is important to determine what employers expect from consumer science graduates to ensure it is embedded into the curriculum.

Furthermore, information regarding the teaching and assessment of these employability skills will add value and aid in creating a more complete framework regarding employability

skills of consumer science graduates. When teaching certain attributes to students, the focus is not on the curriculum content, but rather on the way in which the curriculum is taught (Barrie 2007:448; Mberengwa & Mthombeni 2012:209). Therefore, this study did not aim to change the current curriculum, but rather indicate how to apply it by establishing what skills are needed and how to teach and assess these skills.

1.3 PROBLEM STATEMENT AND RESEARCH QUESTIONS

High unemployment rates and constant global change have led to the need for new and innovative employability skills amongst graduates (Fried, Begg, Bayer & Galea 2014:23; Symanowitz 2013:online). Universities emphasising the development of employability skills will help reduce the pressure to increase the employability of their graduates (Jameson *et al.* 2012:26) while simultaneously raising the quality standards of their degrees (Oria 2012:227).

The problem that was addressed in this study is the absence of a framework regarding employability skills of consumer science graduates in South Africa. The researcher did numerous electronic searches regarding the research problem using Google Scholar, EbscoHost, JSTOR, SAePublications, Scopus, Emerald, Sabinet Reference and ScienceDirect. Although literature regarding employability skills exists (Martin *et al.* 2008a:13; Symanowitz 2013:online), research focussing specifically on employability skills of consumer science graduates could not be found. Even though marketing material for consumer science degrees include some information regarding the skills students will learn during their studies, the only scientific literature concerning consumer science skills was a study regarding process skills of consumer science students. Although these skills are similar to employability skills, the study was conducted focussing on the school curriculum in the United States and did not focus on the needs of employers (Mosenson & Fox 2011:65). No evidence could be found of such a study done in South Africa.

It is important that universities realise which skills their students are lacking, which skills to teach, and how to teach and assess these skills in their degrees to increase student employability prospects. The framework constructed in this study is theoretical, explaining which skills employers require of graduates as well as how to teach and assess these skills to ensure that students acquire these skills during their studies.

In order to address the problem stated, the following research questions were formulated:

- i. How can the employability skills of consumer science graduates be conceptualised and contextualised to form the theoretical framework for the study?*
- ii. Which employability skills do consumer science employers require from employees?*
- iii. Which employability skills do consumer science graduates have after graduation?*
- iv. What teaching and learning strategies must be used by consumer science lecturers to teach the identified employability skills to consumer science students?*
- v. What assessment methods must be used to ensure that consumer science students have mastered the identified employability skills?*
- vi. How can a framework for employability skills of consumer science graduates be constructed?*

A conceptual framework (Figure 1.1) was constructed to help visualise the research problem and guide the study in order to answer these research questions. Although consumer science students need academic knowledge and technical skills, this study focuses on the employability skills required by consumer science employers to enhance employability prospects of consumer science graduates.

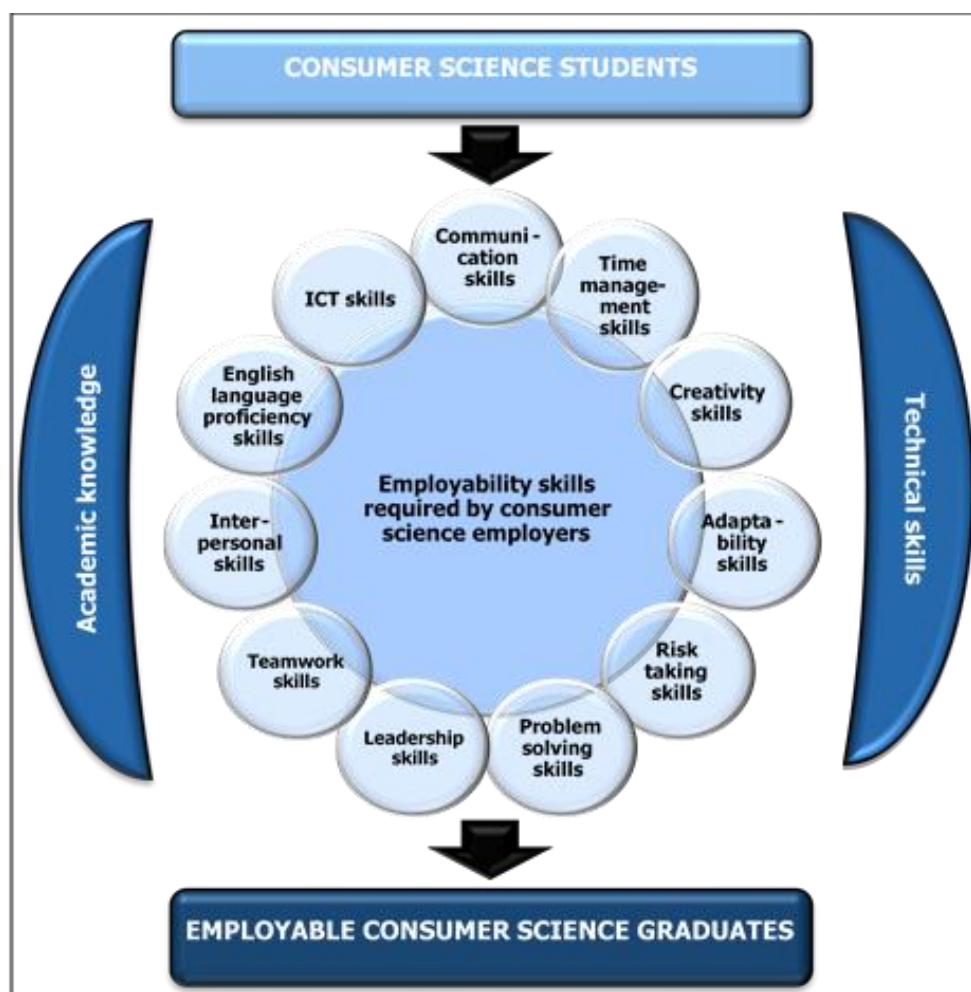


FIGURE 1.1: CONCEPTUAL FRAMEWORK (COMPILED BY THE RESEARCHER, DU PREEZ 2016)

1.4 OVERALL GOAL, AIM AND OBJECTIVES OF THE STUDY

1.4.1 Overall goal of the study

The overall goal of the study is to determine which employability skills consumer science employers require from their employees, with a view to develop a framework regarding the teaching and assessment strategies for employability skills of consumer science graduates.

1.4.2 Aim of the study

The aim of the study is to construct a framework for employability skills of consumer science graduates.

1.4.3 Objectives of the study

To achieve the aim, the following objectives were pursued:

- i. To conceptualise and contextualise the employability skills of consumer science graduates (via a literature study) in order to compile a theoretical framework for the study (This objective addresses research question 1).*
- ii. To describe the employability skills consumer science employers require from employees (via questionnaire surveys) (This objective addresses research question 2).*
- iii. To describe the employability skills consumer science graduates have after graduation (via questionnaire surveys) (This objective addresses research question 3).*
- iv. To describe the teaching and learning strategies that must be used by consumer science lecturers to teach the identified employability skills to consumer science students (via focus group discussions) (This objective addresses research question 4).*
- v. To describe what assessment methods must be used to ensure that consumer science students have mastered the identified employability skills (via focus group discussions) (This objective addresses research question 5).*
- vi. To construct a theoretical framework exemplifying the employability skills of consumer science graduates (via a literature study, questionnaire surveys and focus group discussions) (This objective addresses research question 6).*

1.5 DEMARCATION OF THE FIELD AND SCOPE OF THE STUDY

The framework constructed during this study is theoretical in nature and has two main components. It provides comprehensive information of each employability skill consumer science employers require from consumer science graduates. Furthermore, in-depth information regarding the teaching and learning strategies that can be used by lecturers to ensure the identified skills are acquired by students, as well as the assessment methods that may be used to ensure that students have acquired the identified skills are described. This study was done in the field of Health Professions Education and lies in the domain of academic programme development and teaching and learning, since the framework may be used by lecturers in their programmes to help graduates obtain the skills required by employers.

Although the discipline Consumer Sciences does not commonly form part of Health Sciences faculties at all universities, it is part of the Health Sciences faculty at the North-West

University. The study's main focus is on education and focuses on Consumer Sciences as subject field. This study is interdisciplinary; including Health Professions Education and Consumer Sciences.

The researcher is a lecturer at the North-West University, Consumer Science department and has been involved in assisting students to attain internships and employment after graduation since 2008. There have been numerous conversations between the researcher and students, recruiters and employers regarding why employers choose one applicant above another, and furthermore, what employers are looking for in their employees. This led to the researcher's interest in this topic. The researcher has a passion for teaching, and has always aimed to deliver good graduates with applicable skills to the workplace. Because there is no national board in South Africa guiding lecturers to know which skills to teach consumer science graduates, a framework will be valuable in order to deliver the best students with the right skills to the workplace. Such a framework will benefit lecturers, graduates, employers as well as the universities these students graduate from.

According to Goodwin *et al.* (2012:8) a valuable and functioning framework is best constructed by using input from individuals who are most likely to use the framework. Therefore, participants were included who would be able to give a valuable contribution to this framework and most likely use this framework. Consequently, participants in this study included consumer science employers who know what they want from new employees, academic staff involved in the teaching and learning of employability skills, and consumer science students and graduates.

1.6 SIGNIFICANCE AND VALUE OF THE STUDY

The value of this study is to construct a framework that exemplifies the employability skills consumer science graduates need to encourage employability and career success. Such a framework will be significant in helping lecturers know which skills graduates need and the best manner in which to teach and assess these skills. Lecturers may use this information in their curriculums helping graduates to obtain these skills. Universities may have a higher rate of employable graduates who are sought after by the industry improving the quality of their degrees and reputation of the university.

1.7 RESEARCH DESIGN OF THE STUDY AND METHODS OF INVESTIGATION

1.7.1 Research design of the study

Mixed methods research was used in this study by means of sequential explanatory design (Creswell 2014a:545; Creswell 2014b:11; Creswell & Plano Clark 2011:54,71). The researcher made use of a pragmatic worldview where the collection of different types of data provided a more comprehensive understanding of the research problem than either quantitative or qualitative data would have provided alone (Creswell 2014b:19). A questionnaire survey was used during phase one of the study followed by focus group discussions during phase two.

The design is sequential as the qualitative phase took place after the quantitative phase and explanatory since the results from the quantitative data are explained in more depth by the qualitative data (Creswell 2014b:15). During this study the skills that are required (gathered from quantitative data) and how to teach and assess the required skills (gathered from qualitative data) were both important for constructing a complete framework, therefore both methods were emphasised equally (Creswell 2014b:219; Creswell, Klassen, Plano Clark & Clegg Smith 2011:7).

During phase one, quantitative data collection and analysis mainly determined the skills required by consumer science employers as well as which skills are currently lacking in consumer science graduates. Subsequently, results from the quantitative phase were used to construct an interview schedule for use in the focus group discussions during the qualitative phase of the study. The qualitative phase helped to elaborate and gain in-depth information regarding the quantitative results (Creswell & Plano Clark 2011:71) by means of opinions of lecturers on the best manner in which to teach and assess these skills. Integration of the two methods took place at two stages of the research process (Creswell *et al.* 2011:7; Migiro & Magangi 2011:3763), namely after phase one when quantitative data were used to develop the interview schedule for focus group discussions and after the second phase where results from both phases were integrated during the interpretation of results (Migiro & Magangi 2011:3763).

The mixed methods design followed in this study is described in more detail in Chapter 3.

1.7.2 Methods of investigation

The methods that were used in this research study included a literature study, questionnaire survey and focus group discussions. A thorough literature study was done to enable the researcher to demonstrate a good background knowledge of the research problem and ensure that similar research has not been done (Fouché & Delpont 2011:135).

The literature explored consumer science as a subject field and the history thereof. Different aspects regarding employability skills, the meaning and importance thereof, as well as what has already been researched regarding the topic was examined. An in-depth study was also done regarding the teaching and learning strategies used to attain these skills and assessment methods available to evaluate whether students have acquired these skills. This formed the background knowledge needed for the study and informed the design of the questionnaire survey to be completed by the participants of this study.

During the first phase of the study a non-experimental, descriptive survey design was used (Maree & Pietersen 2016a:171). Surveys were used to obtain quantitative information in order to describe the research topic (Maree & Pietersen 2016b:174) concerning which employability skills consumer science graduates need. A cross-sectional design was used where data were collected at one point in time from consumer science employers, consumer science lecturers, consumer science students and consumer science graduates simultaneously (Creswell 2014a:404). Two universities were included in this study, namely, the University of the Free State (UFS), Bloemfontein campus, and the North-West University (NWU), Potchefstroom campus.

Data were analysed to determine the employability skills consumer science employers require from consumer science graduates. These data were used to develop an interview schedule for the focus group discussions during the second phase of the study.

Focus group discussions were conducted with consumer science academic staff members from the two different university campuses as indicated above. The aim of the qualitative phase was to gain in-depth information regarding the teaching and learning strategies and assessment methods that may be used to ensure that graduates attain the employability skills that were identified during the quantitative phase.

The results from the literature study, questionnaire survey and focus group discussions were used to construct a complete and detailed framework for employability skills of consumer science graduates.

A detailed description of the population, sample, pilot study, data gathering, data analysis and interpretation, validity, reliability, trustworthiness as well as ethical considerations are given in Chapter 3. A schematic overview of the study is provided in Figure 1.2.

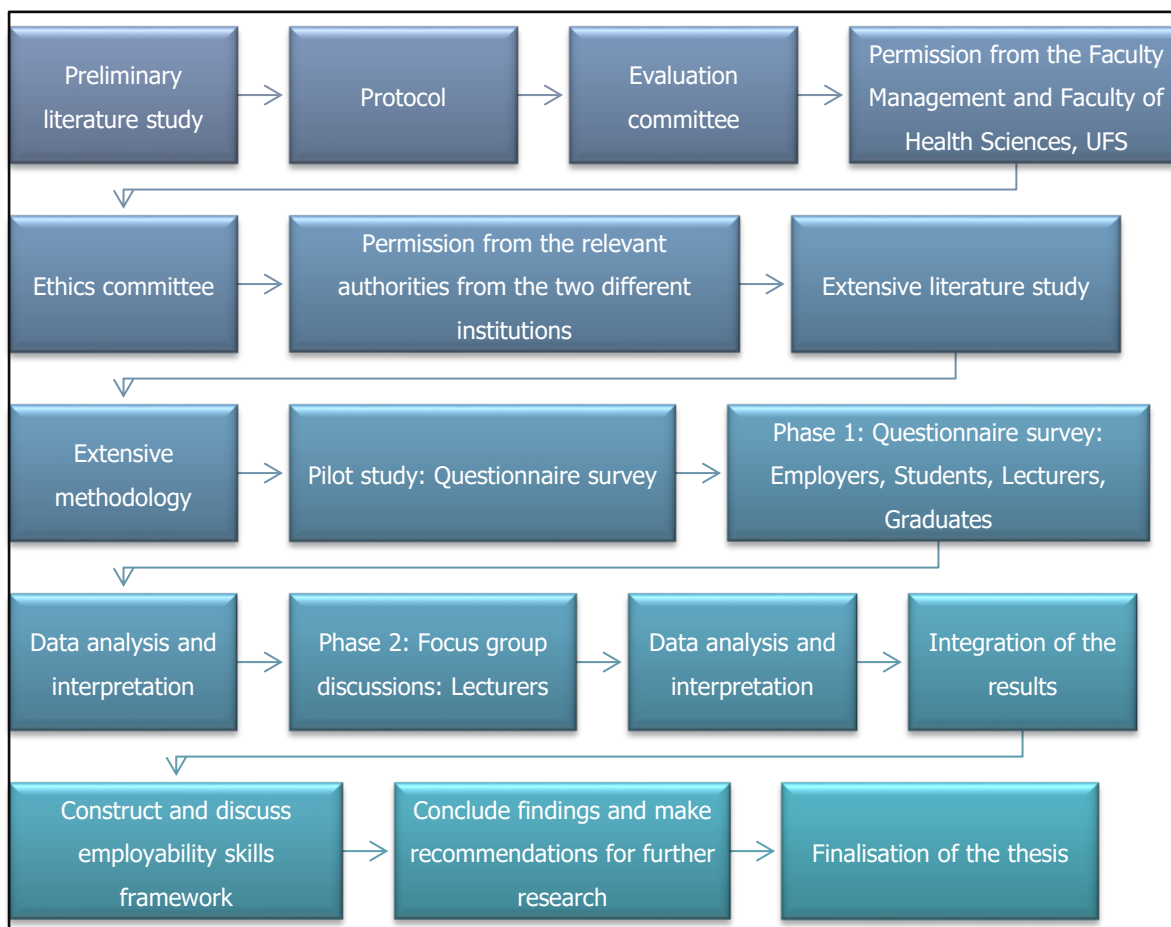


FIGURE 1.2: A SCHEMATIC OVERVIEW OF THE STUDY (COMPILED BY THE RESEARCHER, DU PREEZ 2016)

1.8 IMPLEMENTATION OF THE FINDINGS

Results from the study including the constructed framework will be communicated to a wide audience at appropriate conferences with the aim of improving the application of consumer sciences and other relevant programmes. Lecturers may use this information to know which skills their students need as well as how to teach and assess these skills.

The research findings will be submitted to relevant academic journals aiming at publication in order to make a valuable contribution to the field of consumer sciences as well as other similar fields.

1.9 ARRANGEMENT OF THE THESIS

The arrangement of the thesis will be as follows:

Chapter 1: **Orientation to the study.** In this chapter, the background to the research study was provided. The problem statement and research questions were stated followed by the overall goal, aim and objectives of the study. The demarcation and scope, and significance and value of the study was explained, and a brief overview of the research design, methods and implementation of the findings were given.

Chapter 2: **Employability skills of consumer science graduates.** This chapter will provide a theoretical overview of the study. A history of consumer sciences as subject field will be given to form a better understanding of the subject field as well as the consumer science student. Different employability skills and teaching and learning strategies will be discussed as well as the assessment methods used to evaluate whether students have mastered these skills.

Chapter 3: **Research design and methodology.** The research design and methods will be presented in this chapter. The questionnaire survey and focus group discussions that were conducted during the study will be explained in this chapter including a discussion of the population, sample, pilot study, data gathering, analysis and interpretation of each method. Validity, reliability and trustworthiness will also be discussed along with the ethical considerations of the study.

Chapter 4: **Results of questionnaire survey findings.** In this chapter, the results of the questionnaire survey used during the first phase of the study will be discussed.

Chapter 5: **Description and discussion on the findings of the focus group discussions.** The findings of the focus group discussions from the second phase of the study will be analysed and discussed during this chapter.

Chapter 6: **A framework for employability skills of consumer science graduates.**

The framework for employability skills of consumer science graduates as final outcome of the study will be presented in this chapter. The literature study, questionnaire survey and focus group discussion data will be used to provide a detailed discussion regarding the framework.

Chapter 7: **Conclusions, limitations and recommendations of the study.** This chapter will provide an overview of the study and the study limitations and concludes with recommendations from study findings.

References and **Appendixes** are included at the end of the thesis.

1.10 CONCLUSION

The aim of Chapter 1 was to orientate the reader and give background information regarding the study. The problem statement, research questions, overall goal, aim and objectives of the study were discussed followed by the demarcation of the field and scope of the study and the significance and value thereof. An overview of the research design, methods and implementations of the findings was also included. The chapter layout of the thesis was also explained.

Chapter 2, **Employability skills of consumer science graduates**, will provide a theoretical framework and discussion regarding the relevant literature concerning the research problem.

CHAPTER 2

EMPLOYABILITY SKILLS OF CONSUMER SCIENCE GRADUATES

2.1 INTRODUCTION

Consumer Sciences (formerly known as Home Economics) has previously been a target of negative stereotyping as it was often referred to by other disciplines and scientists as only being “cooking and sewing”, “glorified housekeeping”, a “women’s only discipline” and “mothering and housewifery” to name a few (Boscia 2013:19; Ma & Pendergast 2011:589; Nickols, Ralston, Anderson, Browne, Schroeder, Thomas & Wild 2009:267). Although it was true that the discipline concentrated mainly on women, the negative stereotyping was ironic since the discipline was intended to improve the lives of the American household in general (Rhodes 2011:online) and has done so for decades (Boscia 2013:19). At the start of the 19th century, women were mainly responsible for cooking, making clothes and maintaining a happy household, and Home Economics helped many women to achieve just that (Thaler-Carter 2000:2). However, society has changed significantly since then and today women play a bigger role in the workplace.

The huge number of women who have entered the workplace in recent years had a great influence on the consumer science discipline. In previous years, the discipline emphasised the home, but as the needs of society changed over the years, the contents and focus of the discipline has also transformed (Thaler-Carter 2000:2). Furthermore, the discipline no longer only focuses on women; one of the aims of the current curriculum is to ensure that students are prepared for work life (Laster 2001:online) and to improve their chances of having successful careers. Students must learn certain skills to succeed in the work environment (Dozier 2015:27). Before these skills can be identified and defined, it is important to have a good understanding of consumer sciences as a subject field and furthermore who the consumer science graduate is.

This chapter will provide an in-depth literature study in order to provide background knowledge regarding the research topic. The literature study also helped the researcher to develop a questionnaire survey that was completed by consumer science employers, lecturers, students and graduates during the first phase of the study.

The main aspects that will be discussed are summarised in a theoretical framework presented in Figure 2.1.

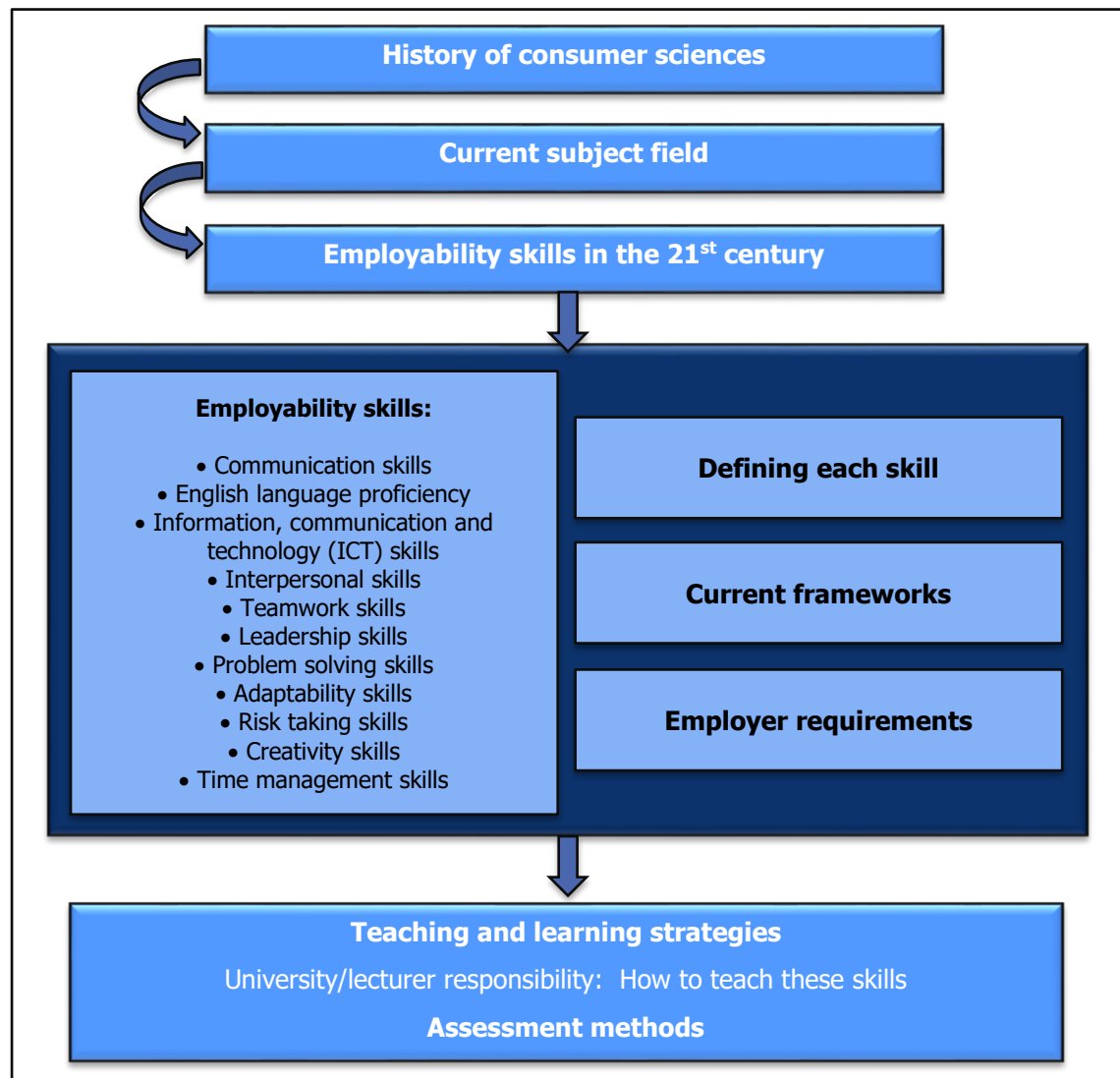


FIGURE 2.1: THEORETICAL FRAMEWORK (COMPILED BY THE RESEARCHER, DU PREEZ 2016)

In order to gain a better understanding of the employability skills required of consumer science graduates, the history of consumer science as a subject field will firstly be summarised followed by an overview of the current subject field. This background will help to define the consumer science student as well as skills these students need to succeed in the work environment in the 21st century. Different employability skills will be defined, leading to an in-depth study of the teaching and learning strategies used to attain employability skills and assessment methods available to evaluate if students have acquired these skills.

2.2 HISTORY OF CONSUMER SCIENCES

Consumer science as a discipline has improved the living standard of millions of people for over a century by focussing on matters of the home including food and nutrition, clothing and textiles, household resources, consumer issues and parenting and child development (Boscia 2013:19). Unfortunately, there is limited published literature available regarding the history and development of the discipline formerly known as Home Economics in higher education (Ma & Pendergast 2011:590).

From 1899 to 1910 a series of annual conferences were held called Lake Placid (due to the location Lake Placid in New York) (Rhodes 2011:online; Weigley 1974:84). These conferences were held to examine the latest science and technology which could be used to improve the lives of American households (Rhodes 2011:online). As an outcome of the Lake Placid conferences, the American Home Economics Association (AHEA) was established in 1908 (currently known as the American Association of Family and Consumer Sciences) (Rhodes 2011:online). As the aim of these conferences was to improve life, with the focus on home and family life as well as different careers in the food, textile and hospitality industry, the members of the AHEA did research regarding the above and focused on creating home economic programmes in schools across the country (University of Michigan 2015:online).

As previously mentioned, home economics was stereotyped and known as a field to restrain women to everyday domestic roles (Rhodes 2011:online). The relevance of the discipline focussing on improving the life of families and households was also questioned (Boscia 2013:19). Looking at the current well-being of families around the world and issues including teenage pregnancy, unhealthy eating and obesity and the increasing divorce rate, to name a few, perhaps the relevance of the discipline was more significant than it might have seemed (Rhodes 2011:online).

2.2.1 Adapting to society

When home economics was established, households mainly consisted of male breadwinners. Societies have changed considerably, and men are not the sole breadwinners anymore. Dual income families are very common. Hence, the focus of the discipline has changed and although the family is still a vital part of the discipline, concentrating on the quality of life of individuals and families (McGregor 2010:2), the focus

is more work related, concentrating on the workplace and employability (Thaler-Carter 2000:2). The way in which the discipline can contribute in the 21st century is now more crucial than ever before (Mberengwa & Mthombeni 2012:206). In Southern Africa the curricula have been evaluated and focus more on the needs and challenges of changing markets (Mberengwa & Mthombeni 2012:201).

Since the American Home Economic Association (AHEA) was established in 1908, the study field has evolved tremendously over the past decades (McGregor 2010:1). In 1993 different Home Economic associations questioned whether the name Home Economics was still relevant and recommended that the name should be changed (Gentzler 2012:7).

2.2.1.1 *The name change*

Although many Home Economics professionals had strong feelings regarding the name, others were of the opinion that, in line with social and curriculum changes, it was important that the name also change and remain relevant to the curriculum (McGregor 2010:1). People tend to draw conclusions from a name, and therefore it was important that the name should be appropriate for and fit the contents of the curriculum (McGregor 2010:20).

In 1993, at the Scottsdale Conference in the United States (US), the name was changed to Family and Consumer Sciences (McGregor 2010:21). This change was a sign that the discipline had evolved beyond the original definition and that it is relevant for contemporary society (McGregor 2010:21; Thaler-Carter 2000:2).

After the name was changed in the US, various institutions across the globe considered renaming their degrees too. They did not all agree on the name, and suggestions included human sciences, human ecology, human development and family studies (Gentzler 2012:7). Although the name change was necessary, the variety of new names at institutions created confusion and a lack of identity (Gentzler 2012:7). Universities in the US have adopted the name Family and Consumer Sciences, whereas some universities in the United Kingdom (UK) now refer to Consumer Sciences (McGregor 2010:21). South African universities responded to the changes in the field, and the six universities offering the degree (the University of the Free State, the University of Pretoria, the North-West University, the University of South Africa, the Cape Peninsula University of Technology and the Durban University of Technology) changed the name from home economics to consumer science(s). Since these universities specialise in different fields of consumer sciences, at the different

institutions the name also includes the specific focus of the degree as will be discussed later (cf. 2.2.1.3).

2.2.1.2 *Suitable faculty*

Due to the transdisciplinary nature of the subject field, confusion also arises since different universities have different opinions as to where the subject field fits in faculties. Therefore at some universities it forms part of the Natural and Agricultural Science faculty (Bailey 2010:244), whereas at others it is part of the Health Sciences faculty (NWU 2015:online). Internationally some universities even went so far as to create a consumer science faculty. The reason why universities have different opinions as to where consumer science fits in, is maybe due to the transdisciplinary nature of the discipline. [International and national universities websites and marketing material explain their view regarding the transdisciplinary nature of the discipline. The discipline focuses on the basic needs of consumers that include food and nutrition, clothing and textiles, and housing. Furthermore it deals with new product development, technology which links with natural (physical) and agricultural sciences, health sciences as well as economic sciences (UP 2016:online)].

2.2.1.3 *Changing curricula of consumer sciences*

The Department of Family and Consumer Sciences at Western Michigan University in the US aimed to give an overview of the discipline and explained that the discipline of consumer sciences is an integration of a variety of fields of study, including psychology, sociology, art, anthropology, economics, education, chemistry, physics, biology and mathematics (University of Michigan 2015:online). Graduates learn to analyse and understand behaviour and interaction between individuals and families focussing on decision making in their daily lives. The aim is to enhance the lives of diverse individuals, families and communities, therefore consumer sciences has a transdisciplinary nature and integrates knowledge from different disciplines.

Although the focus of the discipline across different institutions is primarily the well-being of families and individuals, not all institutions include the same contents in the curricula. Most universities offering consumer science degrees offer a general consumer science degree, however with the name change and the curricula evolving and becoming more relevant to the changing society and the workplace, universities also started to give students a choice regarding the specific field of consumer sciences they want to enter. Different

specialisation areas exist by taking the needs of employers into account and looking at decision making of different resource management aspects as well as understanding consumer behaviour (Bailey 2010:250). The specialisation areas include the basic needs of the consumer including food, clothing or housing/resource management.

The six universities in South Africa that offer consumer science degree programmes each offer a different curriculum. The Cape Peninsula University of Technology (CPUT) as well as the Durban University of Technology (DUT) offer a consumer science(s) degree focusing only on food and nutrition (CPUT 2016:online; DUT 2015:online). The other four universities focus on consumer behaviour and decision making and offer fashion and food aspects in their curriculum. The North-West University (NWU) offers a B.Sc. in Consumer Sciences and although the students have the opportunity to choose between business management or tourism management, it is a general curriculum which includes food, clothing as well as resource management (NWU 2015:online). The University of the Free State (UFS) also includes food and clothing in the programme and offers three different curriculums including a B. Consumer Science General, B. Consumer Science Food and a B.Sc. Consumer Science degree (UFS 2016:online). The University of Pretoria (UP) offers a B. Consumer Science Clothing: Retail Management as well as a B. Consumer Science Foods: Retail Management (UP 2016:online). The University of South Africa (UNISA) offers a distance learning B. Consumer Science degree with a combination of food and clothing, food and nutrition, food retail management, fashion retail management, fashion small-business management, hospitality and consumer science journalism (UNISA 2016:online).

2.3 THE CURRENT FOCUS OF CONSUMER SCIENCES

Regardless of the specific name each institution gives the subject, where the subject field fits in at the different institutions, and the curricula each institution offers, it is clear from the marketing material of universities across the globe that their general focus is the same. Even though different universities offer students different options, the main focus remains the well-being of the consumer (UFS 2016:online). Internationally the focus of the discipline is on personal and family well-being (Colorado State University 2015:online; University of Kentucky 2011:online; University of Venda 2015:online), improving quality of life (University of Arizona 2015:online), and the empowerment of individuals and families (Ball State University 2015:online) by focussing on decision making to use resources effectively (University of Venda 2015:online). In South Africa, although different institutions specialise in different fields, the intention of the degree is no different; the only exception is that

South African institutions focus more on the consumer than on the family, and on informed consumer decision making (UP 2016:online) to fulfil the basic needs of the consumer (UFS 2016:online) so that consumers utilise their resources effectively with the aim of increasing their well-being (NWU 2015:online). These aims can only be achieved by an understanding of consumer behaviour. It can be concluded that the various consumer science degrees on offer all have the same focus, namely to increase the well-being of the consumer by understanding the needs of the consumer and by helping them to make informed decisions that will help them to utilise their various resources more effectively, eventually leading to increased well-being (NWU 2015:online; UFS 2016:online; UP 2016:online).

A good summary of the discipline has been given by The American Association of Family and Consumer Sciences, namely that "family and consumer sciences is the comprehensive body of skills, research, and knowledge that helps people make informed decisions about their well-being, relationships, and resources to achieve optimal quality of life" (Kabaci 2013:91). By aiming to prepare students to be successful in their family and work life, the Family and Consumer Science Division of the American Vocational Association (today known as the Association for Career and Technical Education) developed nine goals during 1994 to provide guidance regarding consumer science curriculum content in the US (Laster 2001:online). These nine goals included:

- "Strengthen the well-being of individuals and families across the life span,
- Become responsible citizens and leaders for family, community, and work settings,
- Promote optimal nutrition and wellness across the life span,
- Manage resources to meet the material needs of individuals and families,
- Balance personal, home, family, and work lives,
- Use critical and creative thinking skills to address problems in diverse family, community, and work environments,
- Foster successful life management, employment, and career development,
- Function as providers and consumers of goods and services for families, and
- Appreciate human worth and accept responsibility for one's actions and success in family and work life" (Laster 2001:online).

These goals were created to guide the development of the content of the curriculum (Laster 2001:online). Since then different goals and guidelines were constructed by a variety of institutions and organisations. However, there is no recognised conceptual framework for family and consumer sciences indicating the professional competencies students need

(McGregor & MacCleave 2007:2). In the 21st century, the focus started to move more toward evolving issues, away from homemaking, and more towards thinking and interpersonal skills needed in families, workplaces and communities (Laster 2001:online). Furthermore, programmes should strive to include core competencies into the curriculum that will assist graduates and make the profession sustainable (Mberengwa & Mthombeni 2012:209).

2.3.1 Consumer science graduate skills

A study done by McGregor and MacCleave (2007:2) compared seven professional competency documents for home economics and consumer sciences constructed by different organisations from Canada, the US and Australia. Since different organisations use different wording and terms it makes it difficult to compare documentation. Some organisations use the word competencies, while others refer to standards, competency standards, principles, threads, tasks, and characteristics and contributions of strong professional leaders, all referring to the different skills or knowledge graduates must attain from the curriculum. Furthermore, McGregor and MacCleave (2007:2) found that although different words had the same meaning, the opposite was also true where different documents used the same words but connected different meanings to the words. The authors had to make sure they made the correct coding and a table was drawn to compare the level of agreement regarding the different competencies each document indicated to be important. The study found that with the 37 competency domains identified by the seven different documents, only 22% were in agreement. The competency domains that were identified by combining the seven documents were human ecology and family ecosystem, interdisciplinary and integrative, problem solving and decision making, management, communication, advocacy, community development and involvement, basic needs, public policy, change management, professional development and lifelong learning, human development, history, mission and philosophy of profession, specialisation knowledge, creation of professional identity (socialisation), international development, reflective practice, value focus on family life, systems of action and practical, perennial problems, value diversity, research and scholarship, ethical and social responsibility, leadership, creative thinking, collaborative teams, critical thinking, global perspective, entrepreneurship, technology, environment, critical science approach, advice to industry, government and NGOs, moral and ethical development, spiritual development, wellness, understanding self and one's personal value and lastly programme planning and development.

Following the above-mentioned study, there were more documents created by a variety of consumer science role players to give a guideline on the different skills required of consumer science graduates (Dozier 2015:20; Mosenson & Fox 2011:63). A universal document internationally accepted could still not be found. In addition, the documents which do exist, do not correspond (McGregor & MacCleave 2007:12).

Marketing material and websites of different universities indicate the focus of the degree at each institution, and some indicate what skills or competencies students should have once they graduate. One such an example is Colorado State University that indicates on their website that after graduation students must be able to deal with societal diversity, be ethical, professional and have empathy, be able to think critically, and have communication and problem solving skills, be able to work in teams, be creative and self-motivated and be a lifelong learner who is interested in individuals, families and consumers (Colorado State University 2015:online). Although this is what some universities indicate their consumer science graduates should have, the question arises if these are also the attributes the workplace is looking for.

2.3.1.1 *Employer requirements*

One of the objectives of this study is to determine what skills consumer science employers require from their employees. It has been said that education could help to reduce unemployment in South Africa (Booyse, Du Rand & Koekemoer 2013:92). By determining the skills employers require, faculty can make sure the identified skills are embedded into the curriculum and increase the employability of their graduates. Since these skills can increase the chances of employment, they are referred to as employability skills (Rao 2012:50). As mentioned, Family and Consumer Sciences curriculums focused on aspects regarding improving households and skills mostly used by women in the home which did not include skills needed for employment (Smith 2007:24). However, since the focus of the degree has changed over the years, and students must be prepared for the workplace, it is imperative that teaching employability skills is included in curricula (Smith 2007:24). When looking at higher education, literature regarding employability skills of consumer science graduates could not be found. There is however, a wide variety of literature available regarding employability skills in general.

In the US, Mosenson and Fox (2011:63) compiled a 21st century Process Skills Model for consumer sciences consisting of skills that will increase student achievement and promote lifelong learning and can be applied in middle- or high schools or universities. The model consists of four main skills including thinking and problem solving skills, information literacy and communication skills, leadership and collaboration skills and career and life management skills. Although these skills are similar to employability skills, the model was created using a general skills framework with National Standards of Family and Consumer Sciences in the US and was mainly constructed with the school curriculum in mind. Most importantly it does not specifically focus on the needs of employers (Mosenson & Fox 2011:65). Therefore it is essential that the needs of employers must be explored, and used to construct a framework that is relevant for consumer science employers.

2.3.1.2 *South African employer requirements*

Ma and Pendergast (2011:593) are of the opinion that each country must develop their own guidelines. Even though the overall goal of the discipline is the well-being of individuals, the content and curriculum outcomes may differ since each country's realisation of well-being differs due to different circumstances and each unique environment (Mberengwa & Mthombeni 2012:200). Therefore, it is also important for this study to focus specifically on the needs of the South African employers who employ consumer science graduates.

South Africa's unique challenges

Since the emphasis according to each employment sector is different, it is impractical to construct a general list of skills needed by graduates to satisfy all employers (Tran 2015:210). Mberengwa and Mthombeni (2012:200) support this by saying that there must be a sensitivity to the unique challenges and cultures, especially in the African continent, to be able to develop an appropriate curriculum suitable for South African specific needs. Therefore, employability skills must be localised as well as focus on specific work sectors (Tran 2015:210;221).

Contents of models and frameworks from other countries regarding different skills students need might be irrelevant to the specific country and the local circumstances (Ma & Pendergast 2011:593). Davis (2008:11) confirms this by stating that although the basic principles of the discipline are the same globally, applying the principles must be adapted to local culture and circumstances in each country. This is an important comment since

South Africa is a developing country with the majority of people living in rural areas. This poses different needs and challenges compared to developed countries (Maliwichi, Simalenga & Oni 2008:400). Even though the aim of the degree is improving the well-being of individuals, reaching the aim may require different skills in each country.

Unemployment is a big concern and skills related to self-employment as well as skills needed to train and educate others might be more desired in South Africa than in other countries (Maliwichi *et al.* 2008:400). In South Africa, consumer science as a school subject (Consumer Studies) has entrepreneurial learning embedded in the curriculum and contributes to students' entrepreneurial skills and may increase their employment prospects (Booyse *et al.* 2013:86). A study done by Cornelissen and Van Wyk (2012:53) in South Africa found that entrepreneurial possibilities is one of the main motivations why students choose to study consumer science. Booyse *et al.* (2013:85) are of the opinion that the fact that more and more students are choosing the subject Consumer Studies as part of their National Senior Certificate (NSC) in Grade 12 has the potential to have a positive impact on South African consumers, communities and society as a whole. This is also motivation for government to support consumer science programmes since these programmes can contribute greatly to the upliftment of communities (Maliwichi *et al.* 2008:400). Graduates are often employed to do community work in an attempt to promote food security and other consumer science skills including clothing related skills like sewing and entrepreneurial skills (Maliwichi *et al.* 2008:401).

Although national standards for Consumer Studies for the school curriculum is available, there is a lack in specific outcomes for degree programmes at university. Consumer science programmes at South African universities have to adhere to level descriptors developed by the South African qualifications Authority (SAQA) that are supported by the Council on Higher education in South Africa to ensure that students attain certain competences before they graduate (SAQA 2012:online). The focus of this study is on the needs of the consumer science employer. Furthermore, McGregor (2011:560) is of the opinion that there is little literature available regarding the role of higher education programmes in this discipline and how to ensure the future of the profession.

Since consumer sciences is such a diverse field of study, Mberengwa and Mthombeni (2012:209) state that the skills consumer science students learn at university should be flexible, adaptable and transferable to different situations. Although this is true for most professions, because of consumer sciences' diversity, graduates tend to regularly change

jobs, which usually includes a new job description and responsibilities. This means that, they regularly need to adapt and apply their skills to new circumstances. Consumer Sciences is a comprehensive discipline and students should be lifelong learners and develop everyday life skills that they can apply on a daily basis in their own lives, homes, communities as well as the workplace (Mberengwa & Mthombeni 2012:209). They also state that students must learn about new things and technologies and know how to be creative, innovative and problem solvers (Mberengwa & Mthombeni 2012:209). Students must therefore learn relevant employability skills to help them succeed and thrive in the work environment. Since literature regarding the specific employability skills South African consumer science students need could not be found, it is sensible to review employability skills in general to get a better understanding of what these entail.

2.4 EMPLOYABILITY SKILLS IN THE 21ST CENTURY

Unemployment is a global issue. South Africa's graduate unemployment rate is increasing along with the overall unemployment rate of the country (Kraak 2015:95; Oluwajodu, Blaauw, Greyling & Kleynhans 2015:1). When looking at the enrolment rate at tertiary institutions, it can be noted that there is an increase in education of young South Africans, but still the unemployment rate is rising (Oluwajodu *et al.* 2015:1,2). One of the reasons given for graduate unemployment is the fact that graduates are unemployable due to a lack of employability skills (Jordaan, Van Heerden & Jordaan 2014:1269; Oluwajodu *et al.* 2015:3).

Employability is not the same as employment (Cox & King 2006:263). Employability can be described as the potential of an individual and often includes a variety of attributes consisting of knowledge, skills and abilities (Kulkarni & Chachadi 2014:65). Employment on the other hand can be viewed as the reward for somebody who is employable (Kulkarni & Chachadi 2014:65). Moreover, employability is not just attaining knowledge and different skills or attributes to get a job after graduation, but also the ability to thrive in a specific career and be an asset for a company (Kulkarni & Chachadi 2014:65; Rae 2007:607). Due to the high unemployment rate, together with the rapidly changing market environment there are extremely high levels of competition among graduates for employment (Fried *et al.* 2014:23; Kulkarni & Chachadi 2014:66). Since the job market is so competitive, graduates need to focus on the necessary requirements they need to be employable (Kulkarni & Chachadi 2014:65; Oluwajodu *et al.* 2015:2). Higher education institutions are pressured to increase the employability of their students (Jordaan *et al.* 2014:1269).

Equipping students with the right employability skills could contribute to their employability (Jordaan *et al.* 2014:1269).

Employability skills can be defined as non-technical competencies required to succeed in the work environment (Ju, Zhang & Pacha 2011:30). However, Jordaan *et al.* (2014:1271) have identified a mismatch between the skills universities are teaching and the skills the workplace requires from their newly employed graduate employees. Although subject or curriculum specific knowledge and technical skills are important (Marais *et al.* 2012:29) employers are looking for skilled, competent and flexible employees with employability skills that will help them succeed in the ever changing global environment (Archer & Chetty 2013:137; Fallon 2013:6, Messum *et al.* 2011:23). It is impracticable to construct a list of general employability skills that is required in all work spheres since the need of industries differs and not all skills are equally important for every work sector (Jordaan *et al.* 2014:1271; Kulkarni & Chachadi 2014:66). This could be better understood from a remark made by Kulkarni and Chachadi (2014:66) who are of the opinion that a "one size fits all" approach is not applicable anymore, since each employer's needs and each employment sector differs. Therefore, a global list of employability skills for all graduates is not applicable (Tran 2015:210). However, since graduates may possibly have a variety of careers during the duration of their lifespan (Cox & King 2006:264) it is important to have a general knowledge of different employability skills required by employers.

Graduates are deprived if they do not learn these skills since they need them to succeed in the work environment (Oluwajodu *et al.* 2015:3). Although literature regarding employability skills is widely available, different authors refer to it differently. Employability skills have been referred to as foundation skills, work ready skills, process skills, applied skills, generic skills, transferable skills, basic skills, core skills, graduate's capabilities and key skills. Whatever the terminology used, these are interchangeable. For the purpose of this study the term employability skills will be used as a term indicating increased employability prospects of graduates (Jackson 2014:1; Nagarajan & Edwards 2014a:12).

Successful employment is dependent on acquiring relevant employability skills (Ju *et al.* 2011:29; Oluwajodu *et al.* 2015:8). However, since so many employers indicate that they are not satisfied with the level of employability of graduates (Odora 2011:87; Oluwajodu *et al.* 2015:8; Tomlinson 2013:125; Tran 2015:207) it may be assumed that there is a difference in the skills universities think students need and the skills employers require (Archer & Chetty 2013:137). With universities being placed under great pressure to

increase graduate employability, they cannot only focus on the academic content of qualifications any longer, but need to focus on graduate employability and the employability skills employers require from graduates (Bridgstock 2009:31; Cox & King 2006:262; Kulkarni & Chachadi 2014:66).

Furthermore, students need to know how to apply the above in practice (Bikse & Riemere 2013:515). According to Oluwajodu *et al.* (2015:8) the skills employers require include leadership skills, soft skills, management skills and cultural fit. Literature supports the above by indicating the different skills employers want including communication skills, teamwork, interpersonal, negotiating skills, problem solving as well as leadership and time management skills (Ju *et al.* 2011:30; Kulkarni & Chachadi 2014:67; Nagarajan & Edwards 2014a:19; Omar, Manaf, Mohd, Kassim & Aziz 2012:106,108).

Other studies have attempted to group the skills into different clusters. For example, "most valued skills", "highest rated attitude" and "most important general skills". This correlates to other findings regarding employability skills including all the different skills valued by employers, for example, work ethic, teamwork and communication skills (Ju *et al.* 2011:30). A lot of time and effort has been put into research to conceptualise graduate employability skills and try to determine exactly what is required of newly employed graduates (Jackson 2014:1). However, the exact employability skills graduates need are still difficult to outline (Bridgstock 2009:31).

It is also important to realise that skills may not be clustered similarly by different individuals (Tran 2015:215). This is seen in literature where different studies group the different skills together differently as well as refer to these differently. For example, Herok, Chuck and Millar (2013:43) use the term personal abilities when referring to a person's ethical attributes, whereas Kulkarni and Chachadi (2014:67) use the term human skills to refer to an employee's ethical principles, responsibilities and norms.

Other authors may also use the term human skills; however, these would include attributes rather than ethics, including for example teamwork to form part of human skills (Kulkarni & Chachadi 2014:69). Furthermore, Tran (2015:215) explains that individuals interpret the meaning of different employability skills differently. Characteristics of different skills may intersect, for example, one cannot have good teamwork skills without having the ability to communicate. It is therefore important to have a clear understanding of the intended meaning of each skill when referring to different skills. Understanding the meaning of each

skill will help to identify which of these skills might be important for the consumer science student in the South African context.

Employability skills, specifically constructed for consumer science graduates could not be found in the literature search. Since employability skills for the majority of health professions include patient care and/or clinical skills (Katowa-Mukwato *et al.* 2014:157; Morreale *et al.* 2011:193), these were not applicable to consumer science graduates. Therefore, for the purpose of this study, employability skills for graduates in general, as grouped by Singh and Singh (2008:20) will be used. The research instrument used in this study was a modified version of an employability skills questionnaire used by the above-mentioned authors and includes a variety of employability skills namely communication skills, English language proficiency, information, communication and technology skills, interpersonal skills, teamwork skills, leadership skills, problem solving skills, adaptability skills, risk taking skills, creativity skills and lastly personal organisation and time management skills and will be discussed next. Note that aspects of these skills are intertwined.

2.4.1 Communication skills

In a study reviewing different advertisements for positions available, the skill most required by employers was good communication (Omar *et al.* 2012:106). Dozier (2015:23) supports this by indicating that employers rate communication skills as one of the skills most essential to have in the workplace. This entails communicating effectively on complex issues, not only to individuals but also to a wide audience (Herok *et al.* 2013:44; Kulkarni & Chachadi 2014:67). It also comprises of written and verbal communication including the ability to comprehend and write reports, telephone skills, develop and deliver presentations and communicate and receive clear instructions. Therefore, speaking and writing clearly, including correct spelling, as well as the ability to listen is an important part of communication skills (Dozier 2015:25; Taylor & Govender 2013:17; Herok *et al.* 2013:44; Kulkarni & Chachadi 2014:67; Singh & Singh 2008:27).

The use of applicable language and communication style (formal and informal) is also an integral part of good communication skills when working with clients, colleagues, superiors as well as people from different cultures (Nagarajan & Edwards 2014a:19). Communication skills enable a person to properly interact with others inside an organisation as well as with outside role players including the virtual community (Kivunja 2015:7; Omar *et al.*

2012:106). This includes facilitating meetings as well as being tactful in different situations and could also lead to the prevention of conflict (Dozier 2015:23; Nagarajan & Edwards 2014a:19). Good communication also contributes to better problem solving and selling of ideas (Nagarajan & Edwards 2014a:19). Kivunja (2015:7) explains that good communication skills also include non-verbal methods including facial expressions, gestures, body language and personal appearance. Communication skills contribute towards teamwork skills as the employees would better express ideas, opinions and feelings, would know how to talk to teammates and use correct vocabulary and to listen well (Strom & Strom 2011:242).

Although various authors view cultural awareness as an independent skill, it forms an important part of communication skills, since having good communication skills includes having the ability to work with and communicate with different cultures (Nagarajan & Edwards 2014a:22). Employees frequently communicate with a wide variety of individuals ranging not only from people from different departments and companies but also with different cultural backgrounds (Nagarajan & Edwards 2014a:22). In a diverse work environment, it is important that employees understand and know how to work with and communicate professionally and clearly with different individuals and are sensitive towards international differences, work culture as well as being aware of different languages, customs and traditions from different cultural backgrounds (Nagarajan & Edwards 2014a:20,22).

Universities should have a strong focus on developing cultural skills of graduates before they enter the workplace to prevent graduates from experiencing "culture shock" (Nagarajan & Edwards 2014a:25). Communication skills and cultural awareness are interdependent. Communication skills are essential to develop cultural awareness, and similarly, cultural awareness increases communication skills (Mahmud & Wing 2016:5565,5572). Good communication skills will help employees to effectively interact with one another (Mahmud & Wing 2016:5572).

Different aspects of communication skills (oral and written) including the ability to communicate with various cultures is an essential part of all work spheres in South Africa. Since consumer sciences' employment opportunities are diverse and graduates work in various fields, communication skills are especially important for consumer science graduates.

Communication skills are interconnected with the next skill, namely English language proficiency. By learning to use English properly, a student's communication skills are promoted (Vinod 2013:391).

2.4.2 English language proficiency

According to Vinod (2013:391) language learning is a skill which helps employees to build a successful career and succeed in the work environment. Being fluent in English can help students to be employable but also increases their social status (Rajendran 2013:407).

Although the ability to speak and write forms part of communication skills, in South Africa, English is the general language used in the work environment (Casale & Posel 2011:385; Kamwangamalu & Tovares 2016:428) and failing to communicate properly in English might affect the employability of graduates (Omar *et al.* 2012:107).

English is considered to be essential for most employment opportunities (Tran 2015:217). Therefore, graduates must be fluent in English in a written and verbal context (Taylor & Govender 2013:17; Omar *et al.* 2012:106). Being fluent in English will increase students' confidence. Showing confidence in the use of English during an interview may also have a positive effect during the recruitment process (Omar *et al.* 2012:107; Tran 2015:217). Although English is the general language used in the work environment, there are 11 official languages in South Africa (Kamwangamalu & Tovares 2016:424), and only 9.6% of South African's home language is English (Brand South Africa 2015:online). Apart from the fact that English is not necessarily the home language, due to the variety of languages spoken in South Africa, most people can speak more than one language and often tend to mix their language, resulting in more informal speech. Krugel and Fourie (2014:223,226) highlight that South African university students' English language proficiency is insufficient. It is therefore important to make sure students are able to use English efficiently before graduating.

Amongst the different languages in South Africa, English is seen as a unifying language enabling different cultures to communicate and interact (Kamwangamalu & Tovares 2016:431). This emphasises the importance of English language proficiency in the South African context, since it enables graduates to participate in diverse work environments (Kamwangamalu & Tovares 2016:431).

2.4.3 Information, communication and technology (ICT) skills

While information, communication and technology (ICT) skills overlap with some of the characteristics of communication skills, ICT skills mainly refer to technology and technical knowledge or skills, including the ability to work with or use certain computer software or technologies (Omar *et al.* 2012:107). This includes skills such as knowing how to use different MS-Office suites, mainly MS-Word, Excel and PowerPoint (Omar *et al.* 2012:107) as well as send and receive e-mails (Singh & Singh 2008:27). It is thus not surprising that employers list technology as an essential basic skill to have and that employees must have proficient computer skills (Dozier 2015:26). It was found that not only the ICT industry requires these skills from graduates, but more than half of vacancies available from other sectors requested the same (Herok *et al.* 2013:43; Omar *et al.* 2012:107). This includes health care professionals (Oberprieler, Masters & Gibbs 2005:598). Unfortunately, many studies have revealed that this is a skill students often lack (Chu, Tse & Chow 2011:132).

Availability of information is constantly increasing, therefore students' skills in locating, evaluating and using information must be developed (Price, Becker, Clark & Collins 2011:706). Information literacy can be defined as the ability to find, evaluate and communicate information in an effective manner and is an essential skill in the work environment (Brettell & Raynor 2013:103; Makani-Lim, Agee, Wu & Easter 2014:3). It is therefore combining the skills to get the right information, usually through the use of technology and knowing how to communicate this information efficiently. A study done in South Africa including only university students indicated that 62.7% of participants used the internet several times a day and 13.6% at least once a day, concluding that more than 76% of students access the internet daily (Queiros & de Villiers 2016:176).

With the availability of technology and individuals who have access to the internet, there is an overload of information available and employees need to be able to retrieve the correct and valuable information needed (Makani-Lim *et al.* 2014:3; Sasikala & Dhanraju 2011:24). Students must therefore learn to be "information literate" and know how to quickly sift through different sources of information and recognise the best information as well as know how to communicate it (Makani-Lim *et al.* 2014:3; Sasikala & Dhanraju 2011:24). Employers want employees to obtain and process information in a quick and effective manner (Makani-Lim *et al.* 2014:3). Time wasted on searching for information influences the productivity of employees in a negative way (Makani-Lim *et al.* 2014:5). Students need to learn the best manner in which to find information (Brettell & Raynor 2013:103) referring

to search engines to retrieve information from the internet and other technology based sources (Singh & Singh 2008:27).

Since most students have daily access to the internet (Oyedemi 2012:306; Queiros & de Villiers 2016:176), lecturers have found that students do not have a problem to obtain information, but they often lack the ability to realise which information is relevant (Makani-Lim *et al.* 2014:3). The gathering of the right information is also important in preparing for interviews (Hay, Franklin & Hardyment 2012:5). Enhancing students' ICT skills will therefore enhance their employability prospects (Price *et al.* 2011:706).

2.4.4 Interpersonal skills

Interpersonal skills help an individual to appropriately interact with others. In the work environment it contributes to an employee's ability to get along with others, including peers, supervisors as well as people from other backgrounds or cultures (Herok *et al.* 2013:43; Omar *et al.* 2012:106; Singh & Singh 2008:27).

Most positions in a business require good interpersonal skills, since these skills include the ability to listen to others, work cooperatively together, get along with others and empathise with others. This intersects with communication skills which entail communicating well with others (Herok *et al.* 2013:43; Omar *et al.* 2012:106; Singh & Singh 2008:27). It also means having the ability to listen to different opinions and view-points before making conclusions and decisions (Herok *et al.* 2013:43).

Interpersonal skills involve the manner in which you work with others (Nagarajan & Edwards 2014a:20), which makes these important for employees. However, it is commonly referred to differently and is also inclusive of the term personal attributes or qualities (Nagarajan & Edwards 2014a:20). Smith (2007:24) explains that personal qualities and/or interpersonal skills are some of the skills most desired by employers. Interpersonal skills can contribute to building professional relationships and trust with clients, colleagues and supervisors while understanding the hierarchy at work. It will also contribute to using appropriate conflict management strategies, and helps to understand others from different cultural backgrounds (Nagarajan & Edwards 2014a:20). The ability to work with and understand different cultures was also referred to in the discussion on communication skills (cf. 2.4.1) and it can be concluded that the one skill is integrated with the other (Nagarajan & Edwards 2014a:20).

2.4.5 Teamwork skills

According to Kulkarni and Chachadi (2014:67), although an individual must function effectively as an individual, it is also important to be effective when working as a team. Working and solving problems with others is an important part of the workplace and a skill vital to be a successful employee while improving the productivity of the company (Hughes & Jones 2011:53; Hobson, Strupeck, Griffin, Szostek & Rominger 2014:191; Taylor 2005:201). The importance of teamwork is not a new phenomenon, and for a long time, employers have realised that successful teamwork can improve productivity, motivation, commitment and loyalty of employees (Hobson & Kesic 2002:147).

Different team dynamics include different individual roles, the size and composition of the team, different team meetings, conflicts and tasks. However, teamwork exists in all sectors and therefore having the skills to work effectively as part of a team is very important to employers (Nagarajan & Edwards 2014a:19; Omar *et al.* 2012:107). Team members functioning and working together are known to make fewer mistakes and be more effective than individuals working alone (Lerner, Magrane & Friedman 2009:318,328). To be an effective member of a team you need different attributes including a positive teamwork spirit and the ability to communicate and work well with others (Omar *et al.* 2012:107) (again overlapping with skills previously mentioned). Characteristics of a consistently trustworthy team include a variety of employability skills, including adaptability skills, communication skills as well as interpersonal skills (Lerner *et al.* 2009:324).

Communication is an integral part of teamwork, since somebody with good teamwork skills would be able to communicate with team members in a way everybody understands, repeating messages when needed, using correct terminology, delivering messages in a short, effective way and knowing how to respond in different situations (Wright, Phillips-Bute, Petrusa, Griffin, Hobbs & Taekman 2009:32). Teamwork is essential at all levels of employment, and the development of critical teamwork skills is vital to be prepared for the work environment and be successful (Hughes & Jones 2011:53-54). Employees with teamwork skills will probably be able to take criticism in a good way and see it as a way to progress, will not have the tendency to blame others, will know how to compromise for the sake of the team, are motivated and will have a positive influence on group success (Strom & Strom 2011:242).

2.4.6 Leadership skills

According to Omar *et al.* (2012:108) employers want graduates to have leadership skills. Mistakes made as a result of poor leadership can be very costly for a company and often hard to overcome (Flores, Matkin, Burbach, Quinn & Harding 2012:213-214). To effectively form part of a team is important, but leadership is also needed (Kulkarni & Chachadi 2014:67). Therefore, it is important that students learn to become leaders (Mberengwa & Mthombeni 2012:201).

Leadership entails a range of other employability skills that could be used during teamwork (Mayne 2012:239). A good team leader will help to give direction to a group and support other members; it does not mean that one individual has authority over the other members (Wright *et al.* 2009:32). It is not only a team leader that needs to have leadership skills, each member can show leadership skills and contribute towards leadership in their specific area of expertise (Mayne 2012:239; Wright *et al.* 2009:32).

A good leader is somebody who knows how to listen as well as communicate well (Alwazzan 2017:560), who has time management skills and knows how to prioritise tasks, gives direction to others as well as provides feedback to colleagues (Wright *et al.* 2009:32). Since leaders need to motivate, influence, persuade, increase interactions, inspire, solve problems and be an example, leadership skills include having good interpersonal skills, problem solving and communication skills (Kivunja 2015:3).

2.4.7 Problem solving skills

Employees must be able to identify and formulate problems, analyse and research the problems, identify solutions and alternatives and draw conclusions regarding problems encountered in the workplace in order to solve problems (Kulkarni & Chachadi 2014:67; Vande Zande, Warnock, Nikoomanesh & Van Dexter 2014:20). Also, if the employer is not fully satisfied with the results, employees must also identify that the approach was not successful and search for new solutions (Vande Zande *et al.* 2014:20). Therefore, employees must be able to use or develop suitable problem solving strategies and know how to follow company procedures while handling problems (Asonitou 2014:284; Nagarajan & Edwards 2014a:20).

2.4.8 Adaptability skills

As explained in the introduction of this study (cf. 1.1), the workplace and working conditions are changing rapidly, therefore employers want employees who can easily adapt to different situations and can create new ideas and problem solving methods (Archer & Chetty 2013:141; Herok *et al.* 2013:43; Kivunja 2015:3; Mayne 2012:234). If a company does not adapt, stagnation will occur which leads to failure. Therefore, flexible, adaptable employees are needed (Kivunja 2015:3). Human beings adapt by learning: they learn to adapt to change, to fit into a new way of doing things and they learn to be lifelong learners to ensure personal development and career success (Kolb 2015:3).

Adaptability skills are also vital for lecturers teaching employability skills since they need to constantly adapt to the changing global environment for the knowledge they teach to be relevant as well as adapt their teaching methods. This indicates that adaptability skills are essential in all work environments (Jordaan *et al.* 2014:1279). Adaptability skills include the ability to adapt to fulfilling different roles, responsibilities, tasks and schedules (Kivunja 2015:3). Adaptability skills also have a positive effect on cultural awareness due to the fact that employees will be more adjustable and flexible to the customs of other cultures (Mahmud & Wing 2016:5572). Employees who have these skills can adapt to any unexpected incident without being emotional, and are able to handle negative feedback in a proper way and use it to grow (Kivunja 2015:3). Therefore, having adaptability skills usually entails having the ability to solve problems, be creative, show interpersonal skills and with changing schedules demonstrate good time management skills. This highlights the fact that employability skills are interdependent.

2.4.9 Risk taking skills

Some employers indicate that risk taking is not always a desired skill, because employees may take risks with the company's assets (Galloway, Marks & Chillas 2014:655). However, risk taking is inevitable in the changing work environment (Steinberg 2016:50). For a business to succeed, risk taking is needed, but employees must have the ability to take calculated risks that will benefit the company (Steinberg 2016:50). In health professions, risk taking usually involves human lives. Risk taking in the diverse employment opportunities for consumer sciences involves largely financial risks. Since job opportunities range from buyers to project developers, risks with unsuccessful outcomes could lead to great financial loss for a company. Therefore, consumer science employees must be able

to manage and evaluate risks in the work environment (Nagarajan & Edwards 2014a:20). Furthermore, employees who take on risks are usually the individuals who take initiative and show leadership in the workplace (Bolton & Lane 2011:221). Risk taking skills usually include adaptability skills (cf. 2.4.8) and also the ability to think out of the box and be innovative. Therefore creativity skills enhance risk taking ability (Steinberg 2016:50).

2.4.10 Creativity skills

Also called initiative and innovative skills, employers want their employees to think out of the box and work creatively (Dozier 2015:25; Herok *et al.* 2013:44). It involves creating new solutions for problems and often questioning the norm (Herok *et al.* 2013:44). Although risk taking is seen as a distinct skill, having creativity skills also includes the skills to understand risk management and risk taking (Herok *et al.* 2013:44). Lecturers must focus on developing students' creativity skills since employers expect employees to apply what they know in new and creative ways (Bjorner & Kofoed 2013:556).

Employers view creativity as an essential skill to have (Dozier 2015:27). The discipline of consumer sciences aims to address the needs of consumers and enhance their well-being (Duncan 2011:391). These needs continuously fluctuate, and in a continually changing work environment, new challenges arise daily and unique problems need unique solutions (Bjorner & Kofoed 2013:556), requiring creativity.

Many lecturers tend to give the best marks for the best looking assignment, and originality and quality of ideas, and thought processes may often be overlooked (Hargrove 2013:490). However, creativity involves original ideas that have value. Having creative skills means that you are able to constantly generate ideas contributing to the performance of the business (Tallent & Crowley 2012:30). It also involves innovative and useful ideas to solve problems (Fariborzi 2015:100; Hargrove 2013:492).

2.4.11 Time management skills

Time management can be defined as "the completion of tasks within an expected timeframe while maintaining outcome quality, through mechanisms such as planning, organising, prioritising, or multi-tasking" (Liu, Rijmen, MacCann & Roberts 2009:174). In order to be successful, effective time management is vital (Nadinloyi, Hajloo, Garamaleki & Sadeghi 2013:134). One of the things students complain the most about, is that they do not have

enough time for all their assignments (Nadinloyi *et al.* 2013:135). However, if students plan more, they will have more control, less last minute tasks that will lead to less stress and more time to complete more tasks, reach more goals and be more successful while also having more free time to relax and recharge (Nadinloyi *et al.* 2013:135). Research found that when continuous anxiety decreases, time management abilities seem to increase (Kaya, Kaya, Pallos & Kucuk 2012:288).

According to Nadinloyi *et al.* (2013:136) good time management skills can be taught to and learned by students. If students learn to manage their time during their studies, they can apply these learned time management skills in the workplace (Kaya *et al.* 2012:284). Interestingly, literature indicates that females tend to have better time management skills than males (Kaya *et al.* 2012:287; Liu *et al.* 2009:174). Also, employees must have the necessary skills to manage time in such a way to be able to take into account the duration of different projects, the ability to multi-task and handle a high workload while under pressure (Nagarajan & Edwards 2014a:19). Another factor concerning time management is knowing how to manage time in an international work environment including people from different time zones (Nagarajan & Edwards 2014a:19).

2.4.12 Other skills

The dynamic workplace also requires employees with passion and enthusiasm for their jobs demonstrated in positive attitudes, integrity and good work ethic (Kulkarni & Chachadi 2014:67; Nagarajan & Edwards 2014a:20; Omar *et al.* 2012:107). Dozier (2015:24) supports this by indicating that employers value ethical employees who are passionate individuals. Employers are also looking for employees who have the ability to think critically meaning that they think more comprehensively and see beyond simple facts (Flores *et al.* 2012:213). Critical thinking is not necessarily developed through knowledge gained from education. Thinking is the application of the knowledge learned and when that knowledge is applied in a complex way, critical thinking takes place (Flores *et al.* 2012:214). Although critical thinking skills are not included in this study as a stand-alone skill, they are embedded into different employability skills. For example, in order to be a good leader critical thinking is necessary, in order to make decisions and have problem solving skills, critical thinking is needed to determine the best options (Flores *et al.* 2012:213,214).

Another graduate attribute or skill employers seek is assertiveness. This includes having the ability to make a decision, and stick to it unless convinced otherwise (Wright *et al.*

2009:32). Similar to assertiveness, employers also value employees who have the ability to make decisions by looking at different solutions, evaluating the alternatives and making a decision (Wright *et al.* 2009:32). Again, the above-mentioned skills are intertwined with other employability skills and decision making in this study forms part of solving a problem and communicating the solution (Wright *et al.* 2009:32).

Kivunja (2015:3) also indicates that an employee's ability to work independently is valued by employers. The author argues that an employer does not have the time to tell employees how to adapt to changes or solve problems and therefore they must be able to work independently. Although self-motivation forms part of this skill, skills already included above, for example, adaptability, creative skills, time management and problem solving (Kivunja 2015:3), risk taking and leadership and even interpersonal skills form the cornerstone of this skill and therefore it is not individually referred to in this study.

Another skill desired by employers is the effort graduates put in to make a good first impression and be presentable during an interview as well as the presentability of their curriculum vitae (CV) (Lowden, Hall, Elliot & Lewin 2011:13). Interviews are very important to employers and some even use assessment centres to assist them in finding applicants who possess enthusiasm and the employability skills needed (Lowden *et al.* 2011:13). Some test applicants' employability skills through certain strategies during interviews including role play activities and presentations (Lowden *et al.* 2011:13). To stress the importance of these skills, some employers even have follow up workshop sessions to ensure employability skills are embedded and to make sure their newly employed graduates have all the needed skills to benefit the company (Lowden *et al.* 2011:13,14).

Omar *et al.* (2012:108) are of the opinion that if universities do not focus on employability skills, graduate unemployment will continue to increase. Although understanding the meaning of each skill is important, knowing the definition thereof is less important than demonstrating how to attain these skills (Lowden *et al.* 2011:vi). In order to ensure that these skills are attained by students, different teaching strategies are needed (Atfield & Purcell 2010:7).

2.5 TEACHING EMPLOYABILITY SKILLS

Students must be informed regarding the skills they need to attain throughout their studies and the importance thereof (Cranney, Kofod, Huon, Jensen, Levin, McAlpine, Scoufis & Whitaker 2005:25).

2.5.1 Importance of employability skills for students

Continuous global change, economic pressure, fierce competition and employer demands are making it crucial for graduates to equip themselves with certain skills to adapt to new challenges and thrive in the work environment (Helyer & Lee 2014:368). However, it seems as if universities do not inform students regarding the important employability skills employers are looking for (Herok *et al.* 2013:45). According to Nagarajan and Edwards (2014a:15) students are not knowledgeable regarding the employability skills they need after graduation. Students must be aware of these different skills required by employers and the value thereof before graduating (Cranney *et al.* 2005:25; Greenbaum & Rycroft 2014:93; Nagarajan & Edwards 2014a:15). Students must also be informed regarding workplace cultural differences before they enter the work environment (Nagarajan & Edwards 2014a:25). The intention of employers requiring employability skills of students is mainly to ensure that graduates are prepared for the workplace, fit in easily and succeed (Jackson 2014:1). Employability skills will also minimise the time it takes to adapt to the new work environment and it will also decrease extra training offered by the employer (Tran 2015:215).

There are however research which shows that students do understand the importance of employability skills, yet they do not make an effort to enhance these skills but rather expect the university to make sure they are equipped with the right skills (Tran 2015:219). However, students do not realise that they need to be actively involved in class activities to increase the development of these skills and are often reluctant to join in activities, for example, group work (Asonitou 2014:286; Tran 2015:219).

The majority of graduates who realise that they did not acquire all the needed skills blame their university for not teaching them the right skills (Tran 2015:219). Symanowitz (2013:online) also found that employers blame universities for students' lack of skills. Although universities must inform graduates regarding the skills they need and must use appropriate teaching strategies to teach those skills, the prime responsibility to acquire

those skills rests with the student and therefore they must become the owners of their own learning (Oluwajodu *et al.* 2015:3; Tomlinson 2013:126; Tran 2015:219). It is important that this awareness by students must take place early in their studies for them to use each opportunity available to them to obtain the relevant skills (Cranney *et al.* 2005:25). Although universities have an obligation to teach these skills, it does not take place without any challenges (Archer & Chetty 2013:137).

2.5.2 Challenges faced by universities teaching employability skills

The first challenge universities face is the fact that the South African schooling system does not deliver students with good basic reading, writing, mathematical and communication skills (Jordaan *et al.* 2014:1271; Oluwajodu *et al.* 2015:3). Literature has indicated that South African mathematics, science and literacy levels compared to 50 other countries are very low (Jordaan *et al.* 2014:1274). This is troublesome since lecturers find it challenging to teach new skills, if basic literacy is not adequate (Jordaan *et al.* 2014:1272).

Another challenge is the fact that lecturers may be accustomed to being researchers and subject specific experts, and often feel that they do not know how to teach employability skills (Jordaan *et al.* 2014:1278; Radloff, De La Harpe, Dalton, Thomas & Lawson 2008:2). Traditionally classes were based on subject content and knowledge which students had to gain, mostly by memorising the contents of material presented to students by lecturers through a lecture-based method (Carpenter 2006:14; Flores *et al.* 2012:220). Hence, lecturers taught only their subject matter (Jordaan *et al.* 2014:1278). Although this decreases hours spent on managing projects and marking long assignments, the outcome was that students graduated with a deep subject knowledge; however, it did not teach students to be critical thinkers (Flores *et al.* 2012:220;221; Green, Hammer & Star 2009:24). By only focussing on subject knowledge, students do not learn to be creative and solve problems (Shieh & Chang 2014:650). Lecturers often lack motivation and since they are accustomed to teach only subject matter, teaching other skills requires training and takes time away from research (Asonitou 2014:286; Radloff *et al.* 2008:3).

Green *et al.* (2009:24) are of the opinion that quality teaching includes the teaching of employability skills and not only subject matter and must also be rewarded; this could also help lecturers to be more motivated. If the senior staff engage in the development of certain skills, it could convince other academics to get involved and realise the value of these skills (Lowden *et al.* 2011:vij; Radloff *et al.* 2008:5). However, there are not enough

teaching opportunities to help lecturers know how to teach these skills (Asonitou 2014:286). Ongoing training opportunities and practical guidance could help lecturers to engage in the development of certain skills (Flores *et al.* 2012:225; Lowden *et al.* 2011:vii; Radloff *et al.* 2008:5).

Large classes also make it challenging for lecturers to change their teaching strategies and implement the teaching of employability skills (Green *et al.* 2009:23; Van der Merwe 2013:24). Institutions must aim to ensure that lecturers receive the needed support, aim for appropriate class sizes, address the workload of lecturers and maintain infrastructure of teaching facilities (Radloff *et al.* 2008:5). It is also recommended that universities should include strategies to improve employability skills in strategic and faculty planning, mission statements, learning and teaching strategies and strategic documents and policies (Lowden *et al.* 2011:vii).

Another challenge universities face is the fact that lecturers have different views regarding the meaning of employability skills (Herok *et al.* 2013:47). Furthermore, they are not informed regarding which employability skills employers require and a link between what is being taught and the need of the industry may be lacking (Herok *et al.* 2013:48). Therefore, collaboration between the workplace and universities is important as it will provide information regarding the skills required by employers (Dozier 2015:20). This may help lecturers to stay up to date with the ever changing workplace and will also contribute towards relevant research topics (Taylor & Govender 2013:15). However, employers sometimes feel that universities are more interested in collaboration for research and funding than enhancing students' employability skills; therefore, collaboration should have a clear focus on the needs of employers (Lowden *et al.* 2011:16).

Lecturers also find it difficult to assess the employability skills of students and some view it as subjective (Herok *et al.* 2013:48). The assessment of these skills will be discussed later in this literature study (cf. 2.6). Although it has been established that teaching subject content is not enough anymore, as previously mentioned it is important to know what the needs of the employers are (Archer & Chetty 2013:137; Odora 2011:91). Collaboration and discussions between institutions and employers could help improve the curriculum and prepare students for the workplace (Dozier 2015:26). Therefore, it is important to involve the employers during planning, development, implementing and assessment of different curriculums, which raises a new set of challenges for universities and lecturers (Odora

2011:91). These challenges include the risk of constructing a curriculum too much according to only one specific employer's needs (Cox & King 2006:265).

Another challenge universities face regarding the teaching of employability skills is that students often focus more on academic knowledge and think their knowledge-based education is sufficient while employers report the lack of certain skills (Oluwajodu *et al.* 2015:3). Effective teaching-learning is thus needed to ensure employability skills are attained by students (Kulkarni & Chachadi 2014:69). It is recommended that students are taught employability skills from their first year by fragmenting the skills and implementing them gradually through different teaching strategies as well as assessing whether students have attained the skills taught (Nagarajan & Edwards 2014a:14).

2.5.3 Teaching strategies for attaining employability skills

Employability skills are not necessarily something specific a lecturer teaches, but it is rather learned through the way in which a lecturer teaches the contents of a curriculum (Mberengwa & Mthombeni 2012:209). To embed employability skills into a curriculum, a variety of new teaching methods are needed (Atfield & Purcell 2010:7). Some employers feel that graduates do not have sufficient employability skills (Oluwajodu *et al.* 2015:6). According to Harden and Laidlaw (2012:125) the most appropriate method of teaching depends on the expected learning outcome. If the teaching strategies currently used by lecturers are not helping students learn the needed skills, lecturers need to address the problem by using other more appropriate teaching and assessment methods to make sure that students learn these desired skills (Barker 2008:1; Jordaan *et al.* 2014:1279).

A study done in Australia found that the majority of all teaching and assessment activities focused on discipline specific knowledge and did not include the enhancement of employability skills (Herok *et al.* 2013:46). This was confirmed by Hiew (2012:16) who indicated that students feel lecturers only base teaching on a textbook without introducing interactive sessions or group discussions and presentations. As previously indicated, traditional teaching activities where knowledge learned in class is repeated in an exam is still the main teaching strategy used (Bikse & Riemere 2013:515; Herok *et al.* 2013:46).

Therefore, it is important to look at different teaching methods or strategies to determine the best way to teach in order to ensure students acquire certain skills. A great number of teaching strategies exist; however the aim of this literature study is not to explore, evaluate or describe different pedagogical strategies. The aim is rather to review literature

specifically focussing on employability skills and determine which teaching methods are recommended by literature to ensure that students acquire these skills. A variety of methods were found which could be used to teach different employability skills. The different methods were grouped together by the researcher as experiential learning, group work, active learning and other methods, and will be discussed next.

2.5.3.1 *Experiential learning*

When students are not just learning something by reading or listening to a lecturer talk about it, but also interacting with it, it can be seen as experiential learning (Kolb 2015:5). As seen in literature, it is obvious that employers desire employability skills and it is clear that employers have a strong desire to employ students with experience (Helyer & Lee 2014:348; Omar *et al.* 2012:106; Tran 2015:221). Not surprisingly experiential learning is a strategy which receives a lot of attention not only in the education sector but also in employability skills literature and embraces work experience. Even though many lecturers implement experiential learning into their teaching, lecturers do not necessarily refer to it as experiential learning. Some do not refer to their teaching methods at all, and do not bother to give it a specific name or know which pedagogy they are using; they are often only focused on what students must learn (Tanner 2013:322).

Experiential learning is seen as a teaching strategy that helps students to transform their experience into knowledge (Shieh & Chang 2014:650). Consumer science literature has indicated that experiential learning is beneficial for consumer science students since they learn different skills to prepare themselves for the workplace, which also contributes to help them succeed in the work environment (Brooks & Simpson 2014:16). With various learning strategies and many of them overlapping each other, it is not unexpected that there is some confusion regarding the term experiential learning (Kolb 2015:xviii). Some see it as a method where students only learn from life experience and that academic knowledge is not involved. However, experiential learning is defined as the foundation for lifetime learning and a more accurate explanation is that experiential learning helps the student realise the connection between the classroom and the workplace and is therefore the link between education, work and personal development (Kolb 2015:4). The experience gained from the workplace is a supplement for formal education and lifelong learning and is essential to reach one's full potential and be a lifelong learner (Kolb 2015:4).

According to Kolb (2015:38) students constantly derive knowledge from experiences. Because the workplace is constantly changing, students need the skills learned by experiential learning to cope with these changes and know what to expect and also how to adapt in the work environment (Helyer & Lee 2014:368). These ever changing conditions also force employees to be adaptable: this is also stimulated through experience (Kivunja 2015:3; Kolb 2015:3). Experiential learning was found to be very effective to help students acquire a wide range of employability skills (Helyer & Lee 2014:368). Experiential learning can be applied through a variety of teaching strategies including out of class methods (work experience, including internships and service learning), methods applied outside or in class (work integrated learning), or in class methods (group work and other active learning strategies) (Brooks & Simpson 2014:16). Although group work and active learning form part of experiential learning, it also consists of a variety of other components and will therefore be discussed separately.

According to Archer and Chetty (2013:141) three types of work experience exist, including subject or degree-related work experience usually arranged by the students themselves (for example internships) and work unrelated to students' studies usually only done for extra money. The third type may, but does not have to include the student entering the workplace. This type of work experience is integrated into their learning and forms part of a curriculum, known as work integrated learning (WIL) (Archer & Chetty 2013:141). When focusing on traditional work experience, subject or degree related work experience is more beneficial to employment. Although it is not futile, unrelated work experience usually involves unskilled work and does not develop all the skills employers require from graduates (Archer & Chetty 2013:141; Atfield & Purcell 2010:1). Although teaching strategies are intertwined and although a variety of methods can be seen as experiential learning, for the purpose of this study, work experience, service learning as well as work integrated learning (WIL) will be discussed next forming part of experiential learning.

Work experience

It is important to realise that learning does not only happen inside the classroom (Atfield & Purcell 2010:20; Helyer & Lee 2014:352). As mentioned earlier (cf. 2.5.3.1), work experience is one of the most popular aspects literature indicates to contribute towards employability (Atfield & Purcell 2010:14; Tran 2015:221). Students with work experience have a more practical and realistic understanding of the workplace and what is expected of them (Tran 2015:221). Therefore, the best place to develop employability skills relevant

to the workplace is through real engagement, in other words, work experience (Tran 2015:211).

A study done by Omar *et al.* (2012:106) found that the majority of job vacancies advertised require work experience and less than a quarter of jobs offered in general are likely to be filled by graduates without any experience. Work experience thus contributes positively to the employability of graduates (Archer & Chetty 2013:141). Work experience such as internships, organised by students themselves or placements with the help of universities are not always referred to as a teaching strategy. However, since many graduates struggle to find graduate-level employment, universities realise the importance of work experience (Helyer & Lee 2014:348). It is known to help students obtain a variety of employability skills and is also an efficient way to bridge the gap between education and employment (Asonitou 2014:286; Lowden *et al.* 2011:24; Pop & Barkhuizen 2013:31). Therefore, it is not surprising that increasingly more curriculums include work placements or internships within or at the end of their programmes (Helyer & Lee 2014:349).

Work experience does not only help to develop employability skills, but also helps students to be more aware of workplace culture, it improves graduate self-confidence and also helps graduates to make more informed decisions regarding their career (Helyer & Lee 2014:353; Lowden *et al.* 2011:24). Newly employed graduates often find the issue of "working with people" and professional relationships difficult when employed after graduation including issues such as age differences in the workplace, gender dominations, superiors' expectations, and not getting recognition in the workplace (Nagarajan & Edwards 2014a:20). During work experience, students learn time management skills, to work with as well as understand clients and to work with different cultures (Nagarajan & Edwards 2014a:21). Furthermore, it gives the student the opportunity to put into practice what has been learned during his/her studies and it contributes to building a good CV (Helyer & Lee 2014:358).

The main employability skills learned during work experience by working with colleagues in the workplace include teamwork skills, problem solving skills, self- or time management skills, communication skills as well as how to work with people from a variety of cultures (Atfield & Purcell 2010:14; Nagarajan & Edwards 2014a:25; Pop & Barkhuizen 2013:31). Team members in the workplace are usually socially and professionally different, therefore students learn much more regarding teamwork than working in groups consisting of friends

with more or less the same sociocultural background and academic standards (Nagarajan & Edwards 2014a:24).

Students who took part in an internship programme revealed that the top benefits from the programme included the real work experience, the importance of teambuilding and how to work together in teams, conflict management, networking, to have business etiquette, the fact that they actually got paid for their work, as well as that their CV was enhanced, that they gained extra skills and also that they now have some practice in interviewing skills (Helyer & Lee 2014:362; Pop & Barkhuizen 2013:32). During an internship, students realised that it was not enough only to have knowledge and skills in one area, indicating the importance of adaptability and flexibility skills (Helyer & Lee 2014:367).

However, for students to gain optimal employability skills through internships, it is advisable that they are not only included in low-demanding or routine tasks, but form part of challenging projects, with an expert, to gain a realistic picture of the work environment (Asonitou 2014:287). Graduates develop optimal skills when they receive specific responsibilities and have the chance to collaborate with colleagues (Nagarajan & Edwards 2014a:24). By familiarising oneself with the work environment before entering permanent employment, it will help to prepare work ready graduates and minimise trouble experienced with the above (Nagarajan & Edwards 2014a:20). Students could best prepare themselves by gaining work experience as early in their academic life as possible and not leave it for their final year (Asonitou 2014:287).

Although work experience helps students to enhance their employability skills, students also tend to be positive about it since it usually involves remuneration and sometimes results in permanent employment. It is also an opportunity to integrate classroom theory with the workplace and real life issues helping them to bridge the gap between education and employment (Blom 2013:viii; Taylor & Govender 2013:15). Some workplace settings use internships as part of their recruiting and interview process and therefore may lead into a permanent job opportunity (Helyer & Lee 2014:354). Therefore, it is not only a positive experience for graduates but also for employers who have an opportunity to source for the best employees to fit into the company (Helyer & Lee 2014:355).

Universities should thus promote work experience and try to increase opportunities for students to attain work experience (Lowden *et al.* 2011:vii). Students find it very useful if universities facilitate work experience opportunities or work placements as it contributes to

them finding work experience that is relevant to their specific field of study (Helyer & Lee 2014:352; Nagarajan & Edwards 2014a:20). Internships also help students to realise how relevant their courses/modules are and how what they have been taught fits into the workplace (Nagarajan & Edwards 2014a:25). Another tool to use when striving to close the gap between theory and practice by providing work experience to students is implementing service learning into the curriculum (Roofe, Brinegar & Seymour 2015:46; Strydom & Tselepis 2013:47).

Service learning (SL)

Service learning (SL) involves students integrating community service as part of their learning experience (Roofe *et al.* 2015:42). Although this is also viewed as work experience, the difference is the fact that it has benefits to both students and communities. Students have to learn something while contributing positively to the community, therefore benefiting the student and the community (Roofe *et al.* 2015:41; Strydom & Tselepis 2013:46)

Since students are confronted with real life scenarios, they tend to develop a strong sense of responsibility towards the community or individuals involved (Roofe *et al.* 2015:46; Strydom & Tselepis 2013:47). Although SL may develop the same employability skills as work experience explained above, since the aim is to provide for people's needs and contribute to the community, students tend to develop important life skills which are also vital for employability. These skills focus more on interpersonal skills including empathy and being ethical. The exposure to diverse cultures during SL also increases students' cultural awareness (Kruger, Nel & Van Zyl 2015:163). Managerial skills are also crucial during SL which also help students to develop leadership skills (Strydom & Tselepis 2013:47).

Service learning projects are usually presented in groups and therefore all the important skills learned during group work as explained later in the literature study (cf. 2.5.3.2) will also be gained during SL (Strydom & Tselepis 2013:47). The workplace environment gives students the opportunity to apply the knowledge learned in the classroom while improving their skills, including time management and communicating with a variety of individuals (Roofe *et al.* 2015:47). It has been noted that the skills learned through SL motivates students' need for more creative teaching where they can learn more skill development (Roofe *et al.* 2015:46).

Work experience be it through vacation work, internships or service learning is however not the only way in which students can attain certain skills. Experiential learning through work-based exercises which can be done in class also helps to embed different employability skills into the curriculum (Cox & King 2006:265). According to Gliatto and Stern (2009:282) using real life scenarios as close to real life issues as possible, is the best manner in which to teach required employability skills in class. This could be implemented through work integrated learning (WIL) and contribute towards employability of graduates (Archer & Chetty 2013:141; Taylor & Govender 2013:21).

Work integrated learning (WIL)

Work integrated learning (WIL) has formerly been known as workplace learning or in-service training. Some refer to it as experiential training or experiential learning (Taylor & Govender 2013:15). However, some literature uses the term experiential learning as an umbrella term for different teaching strategies including service learning and work integrated learning (Taylor & Govender 2013:15). During WIL students attain experience and therefore it is seen as a form of experiential learning. Although this kind of teaching method has been given different names, the fact is that this kind of experiential learning helps students to experience the work environment and learn a variety of important employability skills needed to succeed in the work environment (Helyer & Lee 2014:352). WIL can entail universities placing students in the workplace or be part of service learning groups to gain work experience including all the advantages as explained above. Graduates that have been part of such a WIL programme who were placed in the actual workplace by the university gained a variety of essential skills (Mthembu 2013:3).

Furthermore, it can also include class activities where lecturers use work related assignments to help students understand real work issues. Different institutions make use of WIL inside the classroom where students are introduced to different work related issues and assignments (Van der Merwe 2013:24). Using concepts related to the context of a real work situation helps to not only gain knowledge but also an understanding of the workplace as well as skills that will be useful in the work environment (Lowden *et al.* 2011:14). Blom (2013:viii) explains that WIL is the vehicle for learning and is thus not about working but rather about learning. The employability skills learned through WIL enhances graduates' ability to fit into the work environment (Blom 2013:viii). Mthembu (2013:3) supports the above by stating that graduates who were exposed to WIL during their studies learned certain skills that employers are looking for in their employees and it also helps students to

connect theory and practice. Again, it is vital that assignments and class activities must replicate actual workplace scenarios to ensure WIL is successfully implemented (Rust & Froud 2011:30).

Students who experience WIL activities in class are more technically competent and could be more productive in the work environment (Mthembu 2013:3). The WIL process also helps them to question more and improves their problem solving skills, helping them to be more innovative which contributes to their creativity skills. They gain knowledge and understanding from the experience and learn how to plan and interact with co-workers and supervisors which contributes to both communication and teamwork skills (Lerner *et al.* 2009:325; Mthembu 2013:3; Strydom & Tselepis 2013:34). Projects based on real life problems can therefore contribute positively towards the practical experience of students and enhance the gaining of relevant employability skills (Flores *et al.* 2012:222; Strydom & Tselepis 2013:34).

SUMMARY OF TEACHING EMPLOYABILITY SKILLS THROUGH EXPERIENTIAL LEARNING

It can be concluded that during experiential learning, students do not only get the opportunity to apply theory to practice, but that experiencing the workplace through authentic work experience helps students attain important employability skills. Health professions deals with supporting people, who are typically patients in need of medical/health assistance. Consumer sciences shares this dedication to people; however their main focus is the well-being of consumers, and not specifically patients in need of medical assistance. Graduates work in diverse fields after graduation and it is important to prepare them for these diverse work environments by gaining work experience.

At different institutions the curriculum differs and students are able to make subject choices. Students who experience the actual workplace, find it easier to choose the subjects which will benefit them to achieve their career goals. Although service learning forms a big part of training in the health professions, work experience for students in consumer sciences is usually through internships. These include a variety of retailers (food and fashion), in-store as well as in head offices, buying departments, visual planning, fashion and food magazines, consumer consulting companies as well as food product developers. These diverse, competitive and fast paced work environments force these 'interns' to cope, communicate and work in teams with co-workers from diverse cultures. This not only improves their

communication skills but also their English language proficiency and teamwork skills. It teaches them to adapt to different situations and solve problems by thinking out of the box which stimulates their creativity. These work environments also expose them to a variety of technologies stimulating their ICT skills, improving their interpersonal skills as well as positively affecting their leadership skills. To gain optimum advantage of work experience, students must get a realistic view of the work environment and be included in projects and have responsibilities (Asonitou 2014:287; Nagarajan & Edwards 2014a:24). In most health professions, risk taking may impact human lives, while the risks consumer science students take in the workplace mostly impact the company's assets. During internships it is advisable that students are exposed to the daily risks of each career and the effect it may have on a company. Finally, being on time for work and actual deadlines teaches students time management skills.

2.5.3.2 *Group work*

Graduates found skills learned through group work done in class beneficial for the workplace (Nagarajan & Edwards 2014a:20). They indicated that it was more useful to learn employability skills through group work-based learning than independent learning (Nagarajan & Edwards 2014a:25). Characteristics of group or team members include the fact that they have a common goal at hand, are interdependent regarding their tasks and outcomes, and that in a team, there are different roles assigned to each member to ensure optimum results (Hughes & Jones 2011:53). According to Hughes and Jones (2011:53) there is much debate as to the difference between group work and teamwork; however, the goal is for students to work together while interaction occurs. Therefore, for the use of this study, the term group work and teamwork will be used interchangeably, holding the same meaning.

When working in a group students have the ability to teach each other a variety of knowledge and skills, conduct peer assessment and individual self-assessment and submit group-based work for assessment which entails collaboration (Nagarajan & Edwards 2014a:22). Working in groups also prepares students and aids them with the needed skills to effectively work with colleagues once they enter the workplace (Martin, West & Bill 2008b:24). Different components of group work will be discussed next namely: enhancing teamwork, diversity in groups, brainstorming, group discussions, leaderless group discussions, team-based learning (TBL), problem-based learning (PBL), project-based learning (PjBL) and cooperative learning.

Enhancing teamwork

As explained earlier, it is important to teach students certain employability skills, as in this case teamwork skills, by teaching them effective ways to work in groups (Herok *et al.* 2013:47). Although group tasks are a teaching method used at universities, Herok *et al.* (2013:46) found that it usually accounts for less than 15% of teaching. Moreover, when lecturers do make use of group work, it is generally task orientated, meaning that students have to write an essay or make a poster or any other form of assignment in a group (Herok *et al.* 2013:47). The assessment consequently focuses on the outcome of the assignment and does not teach students how to work together to increase their teamwork skills (Herok *et al.* 2013:47). Although the value of group work is known, it seems as if lecturers do not understand how to optimally transfer the skills during group work (Nagarajan & Edwards 2014a:22).

Lecturers must give structured tasks to make sure certain skills are obtained (Nagarajan & Edwards 2014a:22). By giving a shared group mark to a group, it often motivates the members to collaborate and work together and this increases teamwork skills learned by students (Mayne 2012:239). However, lecturers who only evaluate the end result or outcome of the assignment, often forget the necessity of teamwork (Fidalgo-Blanco, Sein-Echaluce, Garcia-Penalvo & Conde 2015:150). Interaction during group work helps students learn a variety of skills including how to respect others' opinions (Kivunja 2015:3). Therefore, when using group assignments, it is important that the focus is on how students work together rather than only the outcome of the assignment (Hughes & Jones 2011:55). Although a good project outcome may indicate team success, it does not necessarily indicate good teamwork (Hughes & Jones 2011:55). A good outcome might be the work of one team member's effort to guarantee a successful end project, in which case the outcome might be a success. However, no teamwork skills or other important employability skills have been learned in the process (Hughes & Jones 2011:55).

Therefore, Hughes and Jones (2011:55) explain that teamwork is a set of individual skills, and each member contributes to the team. Many companies focus on group performance when employing or promoting (Strom & Strom 2011:234). Optimum teamwork is most effective when a team plans together, determining the goals and expectations of each member, giving structure to the team and planning the work ahead as well as constantly monitoring their progress while ensuring a supportive environment (Hughes & Jones

2011:56). It is not only team leaders that determine success; each member contributes and is needed for good teamwork (Hughes & Jones 2011:56).

To enhance learning through group work, there are certain aspects to consider. It is important to give clear instructions to students to know what is expected of them (Nagarajan & Edwards 2014a:22). By assigning roles, cooperation between members could be enhanced. This could also be replaced by giving students the opportunity to decide what each member will be doing and assigning roles themselves, as long as there is a clear understanding of each member's task (Shieh & Chang 2014:659). However, students should regularly share their ideas and activities for the rest of the group to evaluate and contribute. This could furthermore be enhanced by sharing their progress with other teams to also get insightful and encouraging feedback from them (Shieh & Chang 2014:659). A valuable method that is not used often is setting time aside at the end of the project where the most successful teams could help other teams and improve their projects/assignments (Shieh & Chang 2014:659). This could contribute largely to positive attitudes, increase problem solving skills as well as interactions which improves communication skills (Shieh & Chang 2014:659).

Fariborzi (2015:101) also describes collaborative learning as students working together to learn from each other helping to increase a possible relationship between students as well as improve self-esteem when teaching others something. Collaboration is enhanced by arranging seats in class for students to sit face to face in addition to the traditional rows with a lecturer in front of the class (Shieh & Chang 2014:653). This collaborative flexible environment contributes to creativity (Shieh & Chang 2014:652).

In the workplace, members are mainly socially and professionally different (Nagarajan & Edwards 2014a:24) as opposed to group work during class assignments which usually involves friends with similar sociocultural backgrounds. Students tend to learn more from working in teams in the work environment than from class group work. Diversity in groups is thus encouraged (Nagarajan & Edwards 2014a:24).

Using diversity in group work

To ensure group work teaches optimum employability skills, groups must reflect workplace scenarios by including diverse students in groups from different backgrounds, age groups and knowledge (Nagarajan & Edwards 2014a:24). Furthermore, since the above is not

always present in one specific class or even faculty, lecturers are encouraged to design projects which are implemented across different faculties (Nagarajan & Edwards 2014a:24). Designing projects which run across different faculties involves much planning and administration; however, the skills students learn through this experience are vital (Nagarajan & Edwards 2014a:24).

Working with other students across the university creates a flexible environment where students learn to collaborate with students with a different mind-set and knowledge, contributing to the development of creativity skills (Shieh & Chang 2014:652). As mentioned earlier, the field of consumer sciences is also transdisciplinary in nature, and therefore working across faculties could help the consumer science student to understand diversity and be adaptable. Cultural awareness as part of communication skills was found to be important to employers (cf. 2.4.1) and it is thus important that universities encourage students' cultural awareness. Employers have to work with a range of people from different sectors, position levels, age groups, and also importantly, different culture groups (Nagarajan & Edwards 2014a:24). Including a variety of students who are English first and second language speakers respectively in a group, could also improve students' English language proficiency (Krugel & Fourie 2014:226). Making sure students are introduced to diversity and maximising their involvement with diversity could assist graduates in developing social and cultural skills to help them work effectively with individuals from different cultures and backgrounds (Nagarajan & Edwards 2014a:23).

Brainstorming during group work

Brainstorming, an active learning strategy, is a valuable technique used by groups where students can be divided into small groups and receive a problem to solve. The group must come up with a solution by writing different answers on a board or paper, and decide on the best solution for the problem (Fariborzi 2015:101). This method forces members to pay attention to what is on the board or paper. It is good for creating creativity and problem solving skills since members stimulate each other's brain activity by proposing different solutions and working together to create the best solution for the proposed problem (Fariborzi 2015:101). Students are forced to collaborate and work together to find solutions.

Group discussions

By forming groups in class and giving certain topics for each group to discuss, different skills are developed. These skills include verbal communication skills. Since students have to work together their ability to conform to norms, teamwork skills as well as decision making skills is stimulated (Rajendran 2013:408; Vinod 2013:392). Students also improve their listening skills since the lecturer may ask questions during the sessions to facilitate the discussions (Rajendran 2013:410). Earlier (cf. 2.5.3.2) it was explained that group work should be structured and different roles assigned to ensure optimum results. However, by using group work and intentionally not assigning different roles is a method recommended to develop a different set of employability skills.

Leaderless group discussions

Leaderless group discussions (LGD) is a technique where students form groups and a problem is assigned to the group; however, no roles are given to participants. The only objective is that they must come up with a solution to the problem as a group (Hobson *et al.* 2014:194). To ensure LGD are optimally utilised, it is advised that group discussions are video recorded to evaluate team participation, leadership, communication and conflict among individuals. This revision could lead to valuable feedback (Hobson *et al.* 2014:194). Through evaluating the recordings, students can obtain a good understanding of how important optimum collaboration is during group work, and the importance of planning and structure. Students could be asked to write down all the problems they have experienced in the group as well as provide solutions (Hobson *et al.* 2014:194). This also encourages group discussion and identifies the areas which need improvement. Another type of group work recommended by literature to improve employability skills is team-based learning.

Team-based learning (TBL)

In an attempt to facilitate class discussion and other interactive methods in contrast to lecturing in large classes, team-based learning (TBL) was developed (Elmore, Skelley & Woolley 2014:488). TBL is discussed as part of group work since it entails a lecturer who groups the class into small groups. The whole class receives a lecture; however, group members have to work together in and outside the classroom on different activities and have continuous group discussions (Lerner *et al.* 2009:325). Time spent inside the class is mainly focused on the application and integration of knowledge they had to gather before

class (Lerner *et al.* 2009:323). The lecturers are therefore not teaching academic knowledge in front of the class, but rather helping and facilitating the different groups on their specific assignments. Students have to prepare and gather information before class regarding specific topics, and therefore individual performance as well as team performance can be evaluated (Lerner *et al.* 2009:326). To ensure this is happening, individual assignments or tests are usually conducted before the group starts to work together and the same test is done in group format to get consensus answers. This is a good way to establish individual deficiencies and also promotes collaboration and learning between members (Lerner *et al.* 2009:326).

It was mentioned earlier that a lecturer must not only focus on the outcome of the group assignment (cf. 2.5.3.2), but examine progress as well as the contribution of each member, as is done during TBL (Hughes & Jones 2011:56). Similar to LGD, TBL is a good method to ensure the lecturer focuses on more than just the outcome. Furthermore, TBL encourages verbal and written communication and students learn to solve problems, work with individuals from diverse backgrounds and learn the ability to work as a team (Elmore *et al.* 2014:488). To encourage communication, after assignments are submitted, big group discussions are held where different groups in a class discuss the assignment and give feedback to other groups (Lerner *et al.* 2009:326).

Another way to improve employability skills through group work is using problem-based learning (PBL). This method helps students learn to listen and collaborate with group members while solving a relevant problem (Lerner *et al.* 2009:325).

Problem-based learning (PBL)

New problems employees face daily need new and unique solutions and PBL helps to teach students how to solve problems (Bjorner & Kofoed 2013:558). PBL combined with group work is a very good method as it will enhance the creative process while having all the advantages of group work (Bjorner & Kofoed 2013:558). PBL is not very different from the group methods mentioned above. However, the foundation of PBL is providing students with a real life workplace relevant problem, and they have to work in groups to provide an applicable solution.

PBL is a type of experiential learning and enhances students' ability to think critically and solve problems (Flores *et al.* 2012:222; Martin *et al.* 2008b:18). Students need to use knowledge and experience previously gained to solve different problems (Flores *et al.*

2012:222; Lerner *et al.* 2009:325). Since students are actively involved, this type of learning is also referred to as an active learning teaching strategy (Lord, Prince, Stefanou, Stolk & Chen 2012:608).

PBL provides problems or real life scenarios in relevant contexts which helps students to not only develop knowledge but since they have the opportunity to work in teams they gain important teamwork skills, communication skills and it also improves students' time management skills (Kulkarni & Chachadi 2014:69; Martin *et al.* 2008b:18). Since PBL develops certain skills it also increases student self-confidence; students are motivated to work on real life scenarios and it can have a positive influence on their grades (Martin *et al.* 2008b:23). It also involves independent learning which has an influence on student realisation of ownership of learning (Martin *et al.* 2008b:23). Lecturers are not in control of students learning; students must take ownership of their own learning (Martin *et al.* 2008b:24). Flores *et al.* (2012:222) explain that PBL does not only enhance critical thinking, but also helps students with problem solving and applying employability skills and focuses on a student's previous knowledge and experience.

Another method lecturers use to develop important skills is inquiry project-based learning (PjBL) where questioning is used to involve students in the learning process (Chu *et al.* 2011:133).

Project-based learning (PjBL)

PjBL is mainly done through group work but is a different pedagogical approach. This involves students working together on a project in groups exploring problems while students are forced to think critically (Chu *et al.* 2011:133). With inquiry PjBL the lecturer facilitates; however, the students themselves are constructing their own knowledge through raising questions, identifying problems as well as solving those problems through the collection of information (Chu *et al.* 2011:133). Doing this as part of a group stimulates the development of a variety of skills (Chu *et al.* 2011:133). This method also has an impact on information, communication and technology skills since students need to gather relevant information using technology-based sources and communicate this information to the group. Chu *et al.* (2011:133) found that students who use project-based learning outperform others who still focus on the traditional teaching methods.

During PBL and PjBL students are given realistic work related problems and the two methods are therefore very similar (Lord *et al.* 2012:608). As mentioned earlier this

literature study does not aim to evaluate each pedagogy, but rather explore which different methods are used to teach employability skills. Whichever pedagogy a lecturer decides to use, the focus is on the fact that students work in groups, receive real life realistic problems, determine their own solution in interacting, setting goals, timelines and even assess their own progress (Lord *et al.* 2012:608).

Cooperative learning

Some lecturers refer to their teaching method as cooperative education, where classroom learning is combined with real life on-the-job training (Taylor & Govender 2013:15). Again, similar to the above, it is just a different pedagogy with the same goals in mind as PBL and PjBL. Cooperative learning consisting of group problem solving is often used to help students gain important skills for the workplace (Strom & Strom 2011:235). Research done on students partaking in cooperative learning showed that they had better problem solving skills, and critical thinking skills (Strom & Strom 2011:240). Since the methods above all assist in developing important skills other than academic knowledge, whichever pedagogy is chosen, the aim is to move away from only implementing traditional teaching methods, and get students actively involved to ensure optimum skills development.

One cannot refer to experiential learning and group work without referring to active learning. Active learning requires that students are actively involved in the learning process, they participate and the lecturer's role is to facilitate (Tallent & Crowley 2012:24). There are a variety of active learning methods (some already mentioned above) that could be used to increase the application of employability skills.

SUMMARY OF TEACHING EMPLOYABILITY SKILLS THROUGH GROUP WORK

Interaction takes place in all work environments and effective teamwork is crucial for the success of any business. Therefore it is vital that students learn to work as a team and interact with others. Similar to other health professions, consumer science graduates need others to succeed in their daily work. Although each member plays a different role, each member is important; however the team can only be effective when the group works together. Good teamwork entails a number of skills. Therefore to ensure graduates are ready for the workplace, a variety of group work experiences is essential to gain valuable teamwork skills.

2.5.3.3 Active learning

Lord *et al.* (2012:608) explain that active learning includes anything a student is assigned to do related to learning in class, except listening or taking notes. Experiential and active learning are therefore very similar, with the main difference being the fact that experiential learning focuses mainly on the experience students obtain and sees experience as the foundation of learning (Konak, Clark & Nasereddin 2014:11). When students are actively involved in doing, they tend to think critically and acquire different skills. By ensuring a student can think critically and not just attain knowledge, they are developing employability skills that are crucial for the overall work environment and not just attaining knowledge for one specific job (Cox & King 2006:264).

Critical thinking must not form part of only one class, but must be embedded into all modules for students to learn to apply critical thinking in all parts of life by using different active learning strategies (Flores *et al.* 2012:224). Active learning thus helps students to be more creative and solve problems (Shieh & Chang 2014:650). Active learning strategies that will be explained next include case studies, simulations and role playing, video recordings, feedback through reflection and debriefing, paired problem solving, jigsaw, the flipped classroom, social media/visual learning, encouraging students to write, storytelling and presentations (Flores *et al.* 2012:222; Greenbaum & Rycroft 2014:102; Lerner *et al.* 2009:326; Van der Merwe 2013:24).

Case studies

Makani-Lim *et al.* (2014:3) found that by using case studies students learn information literacy skills by searching for information and only using the information relevant to the specific case study. With case studies, real problems are discussed, using real facts and problem solutions (Fariborzi 2015:106). Since it focuses on real life scenarios critical thinking takes place, and students have the opportunity to think creatively, whilst remaining practical (Fariborzi 2015:106). Doing case studies where students perceive how other individuals go through a design or problem solving process helps them to evaluate other methods of problem solving (Hargrove 2013:490).

Active learning also increases the development of teamwork skills through methods including simulations and role playing (Lerner *et al.* 2009:326).

Simulations and role playing

Simulation can be described as the recreation of an actual real life event that already took place or has the potential to take place (Lerner *et al.* 2009:321). One of the advantages of simulation is the fact that it can be used repeatedly until the desired outcome is reached (Lerner *et al.* 2009:321). Simulation is especially useful in healthcare training where students can practise their skills without harming a patient (Zavertnik, Huff & Munro 2010:65). It is also the ideal opportunity for students to practise communication skills in a safe environment where lecturers and other students can collaborate and give feedback (Rowe 2016:209-210; Zavertnik *et al.* 2010:65). These activities could also increase English language proficiency (Krugel & Fourie 2014:226)

Some lecturers even go as far as hiring actors to attend classes and act as different role players in the work environment. Students get the opportunity to interact and play out different scenarios while the rest of the class and/or lecturer evaluates the interactions and gives feedback (Zavertnik *et al.* 2010:65). Such simulation teaching is best when started with simple communication skills and exercises and evolve into more advanced and formal communication (Zavertnik *et al.* 2010:71). Setting up a scene in the form of simulation which can be recorded from an innocuous environment where students can be comfortable, practice their skills and receive constructive feedback helps them build on their skills (Van den Eertwegh, Van Dalen, Van Dulmen, Van der Vleuten & Scherpbier 2014:94).

Video recordings

As mentioned above, a method that could assist students in the attainment of employability skills is letting students make video clips of themselves with their smartphones (Choi, Song & Oh 2015:92). Evaluating the recording and receiving feedback forms a vital part of learning concerning video recordings (Van den Eertwegh *et al.* 2014:94). This works especially well when a lecturer gives different scenarios to students which they can role play and record. When students then observe these clips, self-assessment as well as feedback from lecturers and peers is given. Group discussions could also play a big role in the feedback, which offers a different set of employability skills (Choi *et al.* 2015:92). This method helps students to realise their own abilities, helps them improve their communication skills and the feedback also improves their emotional intelligence (Choi *et al.* 2015:90,93).

Video recordings were also mentioned during LGD (cf. 2.5.3.2) where students could evaluate teamwork and identify the problems experienced during the exercise by looking at video recordings of themselves working together in teams (Hobson *et al.* 2014:194). Students who took part in a study where their communication abilities were video recorded said that it was extremely insightful for they would have never realised the mistakes they make when communicating (Van den Eertwegh *et al.* 2014:94). This also indicates the importance of learning through experience and being actively involved in the process, as opposed to only listening to a lecture or reading about something. Furthermore, communication skills need practice and constructive feedback (Van den Eertwegh *et al.* 2014:94).

Video recordings also have other advantages. Since university classes are usually large and unavoidable absence often occurs, it is difficult to ensure that all the students are exposed to all the aspects of the curriculum, especially "practicals" (Van der Merwe 2013:24). Video recordings can be used as a tool to overcome this problem. By building a library of recordings of classes it could ensure that all the students have the opportunity to gather all the needed information (Van der Merwe 2013:24). Although this involves a benefit for slow learners to catch up on work and does not really focus on employability skills, another benefit is that it can be used as a tool to enhance group discussions between students by giving it as home work to watch before classes (Van der Merwe 2013:24).

Feedback through reflection and debriefing

Feedback is seen as a vital part of student learning. As seen in this literature study, it has a significant role in most teaching strategies. Harden and Laidlaw (2012:10) indicate that feedback can be defined as information communicated to students in order to change the manner in which the student thinks or behaves, with the aim to improve student learning. For feedback to be effective it must indicate what is expected of students, be used to inform students when they are performing well, point out the areas where they need to improve, as well as guide them to achieve this (Harden & Laidlaw 2012:10). A good way to introduce feedback is by using debriefing sessions or facilitated reflection (Lerner *et al.* 2009:326). Debriefing is important because it helps the student to realise the short falls and where there is room for improvement. If debriefing does not take place, the same mistake often repeats itself (Lerner *et al.* 2009:321). Hargrove (2013:504) also recommends that students make use of journal keeping as a form of independent reflection and evaluation of the planning of a project to understand one's creative thinking process. This helps

students to understand how they manage problem solving and helps with the assessment of outcomes.

Paired problem solving

According to Hargrove (2013:503), paired problem solving is an activity used to increase creative thinking. Similar to group work, students work in pairs to solve problems and also reflect on their ideas. Students have to solve a problem while reporting their thinking process aloud to their partner. This helps them to communicate, observe and acknowledge each other's progress and enhance critical and creative thinking.

Jigsaw

Similar to other group work methods mentioned before, another active learning method to teach employability skills is called the jigsaw method and entails students working in groups. Each member is responsible for reading a portion of the work before entering the classroom (Carpenter 2006:15). During a classroom session, members will get the opportunity to present their part to the rest of the group. This is also effective when using a case study and a specific question. Each member must read the case study and write down their answer. In class the group will compare each member's answer and construct a group answer (Carpenter 2006:15). Although not all students tend to prefer this method (mostly since not all members do their part), Carpenter (2006:17) found that this is one of the most effective ways to reach learning outcomes, improve listening skills, collaboration and is a good method to use in large classes.

The flipped classroom

In some aspects similar to the jigsaw method as well as other methods mentioned earlier, a method called the flipped classroom is used to enhance information literacy skills as well as critical thinking (Kong 2014:161). This method of teaching expects students to gather information and knowledge that was traditionally received in class, on their own time outside of the classroom. Formal class time is then used to do tasks in groups related to the knowledge already self-obtained, where collaboration can take place and the lecturer is available to facilitate (Kong 2014:161). Students must prepare for class by attaining knowledge needed to do their homework in class (Kong 2014:161). This is a student-centred method which forces students to use technology to gather relevant information and

then collaborate in class with peers. The internet is used to access additional information and students are allowed to use digital resources in class by means of, for example, their mobile phones (Kong 2014:161). Students often share their resources on social media groups. This method enhances students' ICT skills and helps them to learn which technologies to use to gain relevant information (Kong 2014:161).

Social media/visual learning

Even though we live in a computer age, Herok *et al.* (2013:47) found that lecturers rarely use computer simulations as part of their teaching strategies. Today's students are prone to instant gratification and have very short attention spans and prefer visual learning. This is due to the fact that they grew up with technology where they are connected to friends throughout the day, constantly checking their statuses, uploading pictures and interacting on the web (Greenbaum & Rycroft 2014:97). Unfortunately, there is also a drop in literacy levels and they tend to read a lot more on the web than other sources and use the internet and television as information source for all their needs (Greenbaum & Rycroft 2014:102).

This does not necessarily mean that lecturers must use social media platforms to interact with students, since studies have indicated that students view social media as a tool to interact with friends and do not want to use it to interact with educational issues (Greenbaum & Rycroft 2014:102). However, interactive exercises including animation or video fragments help to visually stimulate students (Bikse & Riemere 2013:515).

Encouraging students to write

Writing skills are an important part of communication skills that is vital for graduates to be good employees. A crucial writing skill for the 21st century employee is writing effective business e-mails (Vinod 2013:392). Taylor and Govender (2013:17) found that employers will not employ individuals who show poor spelling and writing skills in their application and moreover even reject students for internships when e-mails lack proper text. When writing a business e-mail, the writing style, structure, and even tone is important, and graduates need to know how to write such an e-mail (Vinod 2013:392). A teaching strategy that can be used to help students achieve this as well as improve their English language proficiency is to create an assignment where the student must e-mail the lecturer, and the lecturer can reply directly with comments. Vinod (2013:392) found that this is a much more sensible way of learning than writing a "pretend" e-mail to hand in for assessment.

Journals could also be used to encourage students to write. Journals are a good way in which students can reflect on what they have learned, helping them to realise which skills they have learned and which skills they need to improve on (Herok *et al.* 2013:42,47).

Doing research also encourages writing. Students must be given topics to research, use the internet and write individually or in groups (Vinod 2013:392). This not only promotes their writing skills, but also helps to improve ICT skills by searching for information, using technology and collaborating in groups.

Storytelling

Even though it may seem like a method rather used by school teachers, using storytelling in class has the potential to improve English language proficiency while integrating listening and creativity skills (Vinod 2013:392). A good method to use aiming to improve employability skills is giving each student the opportunity to tell part of a story, and the next student needs to carry on with the story by listening, and then being creative by building their own part of the story (Vinod 2013:392). The lecturer acts as facilitator and may provide interesting twists in the story to make sure students are listening and are innovative. Although this teaching method does not seem relevant to higher education teaching, by using subject-related topics and expecting students to prepare for class, academic knowledge could be included in this exercise.

Listening skills can furthermore be improved by telling a story or letting somebody in a group read a story or article and the rest of the group have to listen carefully to be able to answer questions (Vinod 2013:392). To be a good communicator, listening skills are essential and it improves interpersonal skills.

Presentations

Introducing students to activities like seminars or presentations helps to improve the quality of their communication skills (Kulkarni & Chachadi 2014:69). While students are preparing for the presentation, they are also developing their writing skills and learning how to write concise reports (Vinod 2013:392). Students need to learn how to use Excel and PowerPoint to be able to deliver successful presentations and results of their projects (Chu *et al.* 2011:137) and therefore presentations also improve students' ICT skills.

As also seen above during the explanation of group work and teamwork skills (cf. 2.5.3.2), Herok *et al.* (2013:48) explain that it is important to understand that there is a difference between teaching a specific employability skill and giving a task that may involve such a skill, thinking that it has been taught. These authors give an example regarding presentations and explain that often lecturers give students the assignment to give a presentation saying that it is a method to teach them certain employability skills, for example, communication skills. However, they fail to demonstrate the proper manner of giving an oral presentation and students fail to learn the relevant employability skills from the assignment (Herok *et al.* 2013:48). The result is that lecturers claim to enhance a certain employability skill; however, they are not teaching the skill.

There are, however, different types of presentations. Real life scenarios are important and therefore the presentation should be conducted in a formal manner to simulate a real life conference, interview or other real work experiences (Hiew 2012:17). This will also encourage students to deliver work of a high standard (Hiew 2012:17).

An effective presentation assignment is asking students to present an "elevator pitch" presentation regarding a research project or a topic assigned to them. This type of presentation entails a speech short enough to deliver in a period no longer than the average elevator ride would take (Garces & Black 2015:266). For students to do this, they must be able to condense essential facts and make sure it is in an easily understandable language (Garces & Black 2015:266; Rieger, Aggarwal & Cameron 2017:559). This could contribute to ICT skills since students learn to evaluate and use the relevant information and communicate it in an effective way. Students also use technology to gather as well as present the information (for example internet and PowerPoint). Garces and Black (2015:266) explain that this method could also be applied by not allowing the student to use tools (for example PowerPoint or hand-outs) when presenting. By doing this, the students summarise key concepts and focus on effective communication skills (Garces & Black 2015:266; Rieger *et al.* 2017:559). Furthermore, groups working on a project could also be asked to complete an "elevator speech" as a group project to not only increase communication skills but also teamwork skills (Garces & Black 2015:268).

Presentations can also be an effective way to stimulate creativity, ensuring that students are equipped with creativity skills as well as adaptability skills for the workplace. One such an exercise can be to ask each student to prepare a presentation on an informal topic

known to them, for example "how to fish" (Tallent & Crowley 2012:31). Before the presentation, students are told to pass their presentation outline to the person next to them and then present that presentation. They may ask the original owner of the presentation for help, which will improve communication skills. However, creativity skills are being learned since they have to think quickly and be creative in presenting a presentation they may know nothing about (Tallent & Crowley 2012:31). This will also teach students to learn how to adapt. Again, this type of exercise can be done by focussing on subject specific knowledge and assigning a topic relating to the specific course to each student.

SUMMARY OF TEACHING EMPLOYABILITY SKILLS THROUGH ACTIVE LEARNING

Because textbook knowledge gained through traditional lectures, tests and exams is not sufficient anymore to gain the important skills the workplace requires, students need to be actively involved in the learning experience, think critically and solve problems in innovative ways. Pieterse, Lawrence and Friedrich-Nel (2014:3336) indicated that not all health professions graduates have problem solving skills. This can be addressed by a variety of teaching methods that encourage active learning. The main skills learned through active learning include creativity and problem solving skills. Since active learning methods usually involve students working together, communication skills are improved. Students must work together which forces them to listen to each other. This also has a positive effect on interpersonal and teamwork skills. Active learning commonly involves students preparing before class which involves using technology. This stimulates their ICT skills. Lecturers can also require that students use English only, stimulating their English language proficiency.

2.5.3.4 *Other methods*

A variety of other methods focusing on the enhancement of different employability skills also surfaced including actively enhancing English language proficiency, employment readiness, capstone modules, skill modules or workshops, setting goals and extra-curricular activities. These methods will be discussed next.

Actively enhancing English language proficiency

A study done by Hiew (2012:16) found that students want to receive lectures in their mother tongue, especially when there are difficult issues they need to understand. Although there

is value to these findings, as mentioned earlier, English is fundamental in the work environment, not only helping employees succeed but also important for graduates to be able to secure employment (Casale & Posel 2011:385; Omar *et al.* 2012:107; Tran 2015:217). Lecturers must encourage and motivate students to speak English (Hiew 2012:19).

To ensure students are fluent in English, they have to be comfortable speaking the language. All the different teaching strategies mentioned in the above literature study could be implemented in English to ensure students are comfortable with the language in different scenarios. Lecturers who focus on students' ability to communicate in English are usually more focused on the reading and writing aspect, although speaking and listening is vital in the work environment but neglected by lecturers (Jyoti 2012:1, Roberts & Gous 2014:64). Lecturers may neglect teaching students oral speaking proficiency and listening skills because of time constraints (Van der Walt *et al.* 2008:135). These skills form part of communication skills (cf. 2.4.1) (Roberts & Gous 2014:64) as well as English language proficiency (cf. 2.4.2), and since English language proficiency is important in the challenging work environments consumer science graduates find themselves in, it is vital that lecturers implement methods to enhance these skills.

Fear, negative judgement and previous experience impede effective learning; therefore, when aiming to enhance students' English literacy capabilities, lecturers need to be aware that language mistakes are inevitable and must encourage students to continue to speak the language although a few mistakes may occur (Hiew 2012:14). By writing topics on a piece of paper and giving students the opportunity to speak on the topic, students will develop speaking and presenting skills (Vinod 2013:392).

Students indicated that more informal exposure could enhance their language abilities, for example, interacting with friends fluent in English orally and also through written format for example on social media (Hiew 2012:18,19; Jyoti 2012:3). This could also enhance ICT skills. Furthermore, watching English movies and documentaries and reading English newspapers, magazines and books to build their vocabulary is found to have a positive impact on language skills (Hiew 2012:18,19; Jyoti 2012:3).

In addition, students could start to communicate in English with lecturers, write assignments and e-mails in English, and practice their English in front of the class by starting with small groups (Hiew 2012:18; Jyoti 2012:3). This will help students become more

comfortable. Receiving feedback from lecturers and peers will help students improve their language skills and boost their confidence (Hiew 2012:18). Assignments done in English must again be focused on real life scenarios for students to be able to implement the language in the most realistic way possible (Jyoti 2012:4).

English must be introduced to students through integrated and interesting approaches where students are comfortable to make mistakes and learn to be more self-confident to use the language comfortably (Vinod 2013:392). Another method Hiew (2012:17) identified which could increase students' comfort with English is by introducing the language in a fun and interactive way, for example, through playing a game. Playing games as teaching method is often seen in mathematics, biology, chemistry and physics classes where student play interactive games and increase their knowledge (Bikse & Riemere 2013:515). This method could also be used to make class activities enjoyable and encourage students to take part in class activities, helping them to be comfortable to use the language properly (Hiew 2012:17).

Employment readiness

To make sure students are ready for employment, many lecturers include certain class activities in their modules. These activities often include a presentation, handing in their CV, writing a reflective piece on what they have learned or taking part in a mock interview (Rust & Froud 2011:30). Unfortunately, students usually only do the work to receive a mark and employers have indicated that when graduates are confronted with the above in real life situations they often fail to deliver desirable outcomes (Rust & Froud 2011:30).

Lecturers must make sure assignments focussing on employment readiness mirror actual employment situations and are assessed accordingly. Otherwise, students might believe they are ready for employment, their CVs are suitable, they have the needed interview and presentation skills and are effective team players (Rust & Froud 2011:30). When lecturers conduct mock interviews with students, it should not only prepare them for different scenarios faced in real life interviews, but also help them to develop self-confidence and other employability skills (Vinod 2013:392).

Critical self-awareness is important and students must have a realistic view of their own abilities, strength and weaknesses (Rust & Froud 2011:32). Interviews with an actual employer could be a great way to determine if the student has attained the skills needed

that are relevant to real employers (Rust & Froud 2011:36). This could be developed by realistic feedback. Students must know what is expected of them during assignments including the standards they need to uphold to meet the requirements (Rust & Froud 2011:33). These standards cannot always be articulated in words; however, an effective method is to demonstrate it by example, which is often imitated by students (Rust & Froud 2011:34).

To ensure all the relevant skills are learned before graduating, students could conclude their degree with a capstone module.

Capstone modules

A capstone course or module is usually implemented during the final year of study where students are expected to combine theory with practice (Nagarajan & Edwards 2014a:21). The course usually entails a real workplace problem and students have to use their knowledge and skills gained throughout their studies to solve the specific problem (Nagarajan & Edwards 2014a:21). Such a course at the end of a student's journey also helps students to experience a sense of accomplishment and helps them discover their readiness to enter the work environment (Strydom & Tselepis 2013:35). It also exposes students to the challenges that might occur in the workplace and teaches them to implement the skills already attained (Nagarajan & Edwards 2014a:21).

Capstone courses help students to deal with real life problems and can contribute largely in the development of important employability skills of graduates (Kulkarni & Chachadi 2014:69; Nagarajan & Edwards 2014a:22; Strydom & Tselepis 2013:35). Although vital skills could be learned by using capstones, the aim is not to teach students all the employability skills needed for the workplace, but rather to assist students in applying different skills to different situations. Individuals from the workplace often form part of the course and can be consulted and used as advisors or in some cases even as assessors, helping the course to be even more relevant to the workplace (Nagarajan & Edwards 2014a:21).

Students' attainment of employability skills could also be increased by making use of skill courses designed to teach specific skills.

Skill modules or workshops

Although it is recommended that employability skills are embedded into the curriculum, stand-alone skill modules or workshops at department level or offered by the university could be beneficial to help students attain employability skills (Atfield & Purcell 2010:7). Rust and Froud (2011:30) found that a short intensive two-day programme designed to enhance teamwork and leadership skills can be very promising. Such a programme focuses on teamwork, giving students real world problems to solve, focussing on continuous feedback. This helps students to realise their weaknesses, helps them improve, shows their strengths and helps them use these, and improves their confidence (Rust & Froud 2011:35). Some universities offer a wide variety of these types of workshops focussing on a variety of skills needed for the work environment (Rust & Froud 2011:35). Problems arising from these programmes is the fact that it is often outside of the curriculum and not attended by all students (Rust & Froud 2011:35).

A course that is also recommended is a stress management course (Kaya *et al.* 2012:284). It is found that time management skills increase when anxiety levels decrease; therefore, it is suggested that a programme which teaches students how to handle stress could be beneficial for students and have a positive impact on other employability skills (Kaya *et al.* 2012:284).

Time management skills can also be stimulated by incorporating timeframes to assignments and activities.

Setting goals

Without deadlines, tasks or assignments can take a very long time to complete. Deadlines often create pressure, which encourages people to accomplish different tasks on time (Kivunja 2015:6). Other than lecturers assigning timeframes to different assignments, students must also learn to construct timelines and make sure they stay within their set timeframe. It has been found that the shorter the timeline, the more likely the task is to be done since there is no time to put off the task (Kivunja 2015:6). With the fast-moving work environment, it is essential that students know how to manage their time and therefore deadlines for assignments and tasks could help students to learn this skill.

Extra-curricular activities

As mentioned earlier, knowledge gained in class is only one source and graduates develop important skills needed for employment outside of the classroom (Nagarajan & Edwards 2014a:20; Tomlinson 2013:126). Work experience has already been mentioned, and extra-curricular activities like student organisations can contribute greatly to students gaining employability skills (Lowden *et al.* 2011:iii; Tran 2015:219). Teamwork is one of the vital skills learned through extra-curricular activities (Atfield & Purcell 2010:14). Motivating students to form part of student organisations or volunteers who are involved with the planning of different activities and events on campus might increase their interactions with others and, importantly, individuals from different backgrounds and cultures. This interaction will improve communication and teamwork skills, and contribute to their cultural awareness and sensitivity (Nagarajan & Edwards 2014a:24). Furthermore, students involved in extra-curricular activities are often an indication to employers that students are committed to improve themselves and develop all the necessary skills. It also shows employers that students know their own strengths and how to apply these strengths (Rust & Froud 2011:34).

2.5.4 Summary of sources for attainment of employability skills

It is concerning that many students are still complaining that the teaching they receive at universities mainly includes the transmission of knowledge from lecturer to student (Tran 2015:216). This includes exam-orientated teaching and learning where assessments are mainly based on exams where students are required to repeat the knowledge they received in class (Tran 2015:217). Unfortunately, these traditional methods do not include the development of critical thinking and attaining skills essential for the workplace (Tran 2015:217).

As seen throughout this literature study, the best way to get a better understanding of new knowledge and to learn is to be actively involved in the experience (Taylor & Govender 2013:15). A student-centred approach instead of a lecturer-centred approach is essential (Radloff *et al.* 2008:4). This approach focuses less on memorising and more on the integration of skills where the focus is on the students and how they learn to apply a variety of skills to job-related situations (Odora 2011:88,89). Student-centred learning helps students to think critically, improves communication skills, and teaches students how to self-reflect and have a critical understanding of their own work and the work of others (Barker 2008:1). Since exercise and being involved turns into skill, lecturers should rather

act as participant, facilitator, coach or mentor who helps and works with students rather than the instructor or subject expert (Flores *et al.* 2012:222; Simelane, Blignaut & Van Ryneveld 2007:941). The role of such a mentor is not to provide knowledge but to guide students to attain the knowledge themselves (Fariborzi 2015:106).

All the teaching strategies mentioned throughout this literature study focus on the student being the main focus of the learning environment in contrast to the lecturer presenting and talking to a passive group of students. Using a student-centred approach where the student is experiencing and actively involved in the learning process ensures that students learn all the needed skills as well as how to implement those skills in the work environment (Taylor & Govender 2013:15). A student-centred approach encourages learning among peers and group work assists in preparing students for employment (Kliegl & Weaver 2014:205).

Nagarajan and Edwards (2014b:52) compiled an illustration indicating the contribution of a variety of subjects towards the development of certain skills as seen in Figure 2.2.

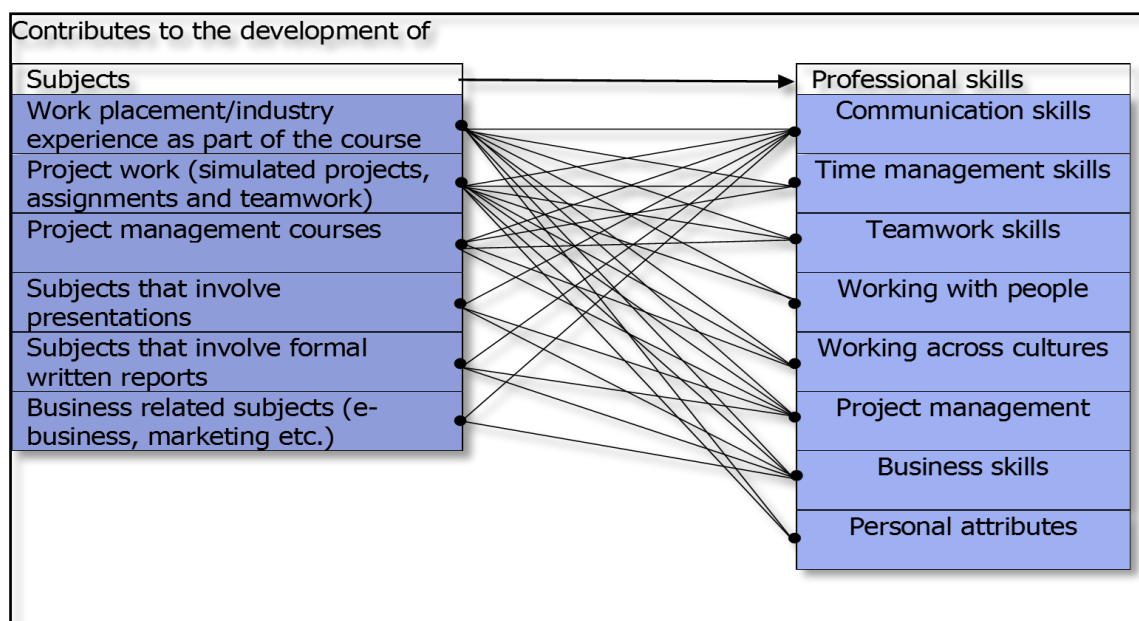


FIGURE 2.2: MULTIPLE RELATIONSHIPS BETWEEN THE MOST USEFUL ASPECTS OF UNIVERSITY STUDIES AND THE MAJOR PROFESSIONAL SKILLS (NAGARAJAN & EDWARDS 2014B:52)

Eight important skills for employment were identified including communication skills, time management skills, teamwork skills, working with people (interpersonal skills), working across cultures, project management, business skills and personal attributes (Nagarajan & Edwards 2014b:52). Six subjects as methods to implement these skills were also identified including work placements/experience, project work (simulations, assignments and teamwork), project management courses, subjects involving presentations, and subjects

involving written reports and business related subjects. Interestingly it can be seen that the methods mainly focused on in this study namely work experience and project work (group work and active teaching strategies) were the only two methods found to develop all eight identified skills.

In another study, these authors also compiled a diagram illustrating the relationship between sources of skills and skills (Nagarajan & Edwards 2014a:21). They found that academic, social, personal as well as work experience are useful sources for a variety of skills. They also found that work experience is the only source where all eight skills they identified as mentioned above could be optimally learned. Academic sources, for example a university degree or other short courses were found to be a place where communication skills, time management skills, teamwork, working with people, working across cultures, project management and personal attributes could also be attained. This was also seen in the literature where different teaching strategies can be used by lecturers in class to teach a variety of important employability skills (Atfield & Purcell 2010:7). Literature also indicated that extra-curricular activities are a useful source to attain certain attributes (Tran 2015:219). This is confirmed by Nagarajan and Edwards (2014a:21) who say that social sources including extra-curricular activities, travel and interacting with friends can develop communication skills, time management skills, teamwork, working with people, working across cultures, as well as personal attributes. These authors also indicate that personal hobbies and pastimes can contribute to the development of communication skills, time management skills, teamwork skills and personal attributes.

2.5.5 Summary of teaching strategies for employability skills

A variety of teaching strategies must be used to ensure students acquire the needed employability skills. Although teaching strategies overlap, for the purpose of this study different strategies were grouped together including experiential learning, group work, active learning and other methods to attain certain skills. It was found that students learn through experience. This experience can take place outside of the classroom in the work environment as well as inside the class through a variety of methods. Group work enhances this learning experience. It also enhances teamwork, which is an essential skill for the workplace. Group work also enhances other employability skills through diversity in groups, group brainstorming, discussions and other useful teaching strategies where students must work together in groups. These strategies interlink with active learning, a teaching strategy which suggests that students learn when they are actively involved in a process. This could

be done through case studies, simulation and role playing, making video recordings, using reflection and debriefing methods to give feedback, problem solving, jigsaw, flipped classroom methods, visual learning, encouraging students to write, storytelling and presentations. Other methods which surfaced included the enhancement of English language proficiency by exposing students to the language and making them feel comfortable using the language by practising. Certain activities including constructing CVs and mock interviews can prepare students for the work environment. Including modules in the curriculum, for example capstone modules that combine all the skills learned as well as basic modules that specifically focus on certain employability skills could be beneficial. It was also noted that lecturers must set goals during their teaching that will encourage time management skills. Lastly, literature indicated that extra-curricular activities can also enhance students' employability skills.

It can be concluded that employability skills may be embedded in different subjects by using and integrating a variety of teaching strategies (Nagarajan & Edwards 2014a:21; Rowe 2016:209). Lecturers must facilitate in a student-centred environment, including real life scenarios with real life work problems. However, it is important to use assessment methods to ensure that students have mastered these skills.

2.6 ASSESSMENT OF EMPLOYABILITY SKILLS IN HIGHER EDUCATION

Even though the attainment of a degree is an indication of the acquisition of certain skills, how students apply these skills is a much better indicator of the quality of the degree and employability of the students (Odora 2011:89). The gaining of certain skills must therefore be seen as an objective of higher education and not only the acquisition of a degree (Odora 2011:89).

Embedding employability skills into the curriculum is complex. One of the barriers to successful implementation of employability skills is the fact that lecturers find it challenging to assess these skills (Greenbaum & Rycroft 2014:102; Radloff *et al.* 2008:1,3). Although most universities are aware that certain employability skills are needed, structured assessment thereof is unavailable (Herok *et al.* 2013:46). Makani-Lim *et al.* (2014:3) support this by stating that the teaching of skills is implemented at university level. However, effective ways of measuring if the skills have been attained are lacking.

Universities have become more aware of the fact that a wider variety of skills other than academic knowledge must be assessed (Atfield & Purcell 2010:1). When assessing, the assessor must firstly know what the criteria or standards are for the assignment or task to succeed, and secondly the assessor must have the ability to make an informed and fair judgement regarding the work and whether or not it meets the criteria or standards (Lawson, Taylor, Thompson, Simpson, Freeman, Treleaven & Rohde 2012:4). Lecturers usually use traditional ways of testing knowledge as it is the least resource intensive with the fastest turnaround times (Herok *et al.* 2013:47). However, the outcome is that students' theoretical knowledge is primarily tested (Herok *et al.* 2013:47).

Methods including self-reflective journals, portfolios or oral presentations which could be used to assess employability skills are seldom used, and when it is used, it is usually poorly implemented (Herok *et al.* 2013:42,47). Students are aware of what their lecturers assess, and since students tend to only focus on the things that will be assessed, when lecturers only focus on academic knowledge, students often miss the importance of other skills since they are only focused on gaining enough academic knowledge to pass (Greenbaum & Rycroft 2014:93; Nagarajan & Edwards 2014a:14; Radloff *et al.* 2008:2; Taylor 2005:201).

Although employability skills are difficult to access and it is almost impossible to determine exactly the level of achievement of these skills, lecturers must include it in their assessment criteria for students to realise the importance thereof (Greenbaum & Rycroft 2014:93; Radloff *et al.* 2008:5). Assessment criteria must thus focus on employability skills and be introduced in the same way as graduates will encounter in the work environment (Greenbaum & Rycroft 2014:93). Hence, many lecturers are known to involve employers as part of student assessment (Cox & King 2006:265). Ways in which employability skills can be assessed include checklists, rating scales, rubrics, peer assessment, self-assessment, feedback, reflection, evidence of learning, presentations and capstone projects.

2.6.1 Checklists

One form of assessment which is useful for certain situations is using checklists to make sure a student has attained a certain employability skill (Wright *et al.* 2009:33). By using checklists, a lecturer can indicate which skills a student has obtained. It does not involve a judgement regarding the quality of a student's work, and usually only demands yes or no answers (Erickson 2011:online).

It is not always possible to have a checklist and indicate if a certain skill has been learned as checklists do not indicate a student's knowledge or understanding of a certain skill (Erickson 2011:online). Skills are complex and usually consist of a variety of dimensions. An example used by Wright *et al.* (2009:32) is by dividing a certain skill into different dimensions and using a rating scale to indicate to what degree each skill has been attained.

2.6.2 Rating scales

When lecturers want to judge the level of a student's work, rating scales are a more suitable method to use than a normal checklist (Erickson 2011:online). An example of a rating scale used to assess teamwork is given by Wright *et al.* (2009:32). These authors determined different dimensions of teamwork including assertiveness, decision making, leadership, communication and situational assessment. To use a rating scale to indicate the level of teamwork skills a student possesses is difficult; however, to look at the different dimensions of the skill and rate each individual dimension, a better idea could be created of where a student can grow. By rating (5-complete, 4-high level of skill, 3-adequate, 2-some skill, 1-hardly any skill) Wright *et al.* (2009:32) found that a total score for a student's teamwork abilities can be calculated. This type of checklist with rating scales can be used for a variety of skills by determining the different dimensions of each skill and rating each dimension separately (Lerner *et al.* 2009:328). Using a rating scale is therefore a good way in which to determine if students have gained certain skills. The student, team members as well as the lecturer can use this method to determine if the student has the specific skill and if he/she needs improvement (Lerner *et al.* 2009:328).

Hobson and Kesic (2002:148) have also constructed a rating form as assessment tool as an accurate way to evaluate each team member's skills concerning teamwork by providing a list of positive teamwork behaviours alongside a list of negative behaviours. This could be completed throughout the duration of group work. It is important to note that this type of group work where continuous evaluation of teamwork takes place, will not only provide an end result which could be assessed, but also helps students learn important teamwork skills throughout the process. Students can still receive a mark for the outcome of the assignment as done in traditional teaching methods; however, they may also be assessed on the teamwork skills including other valuable employability skills which are often viewed as difficult to assess by lecturers.

However, although students can assume where improvement is needed according to low ratings for certain skills, a checklist with rating scales does not give detailed feedback (Erickson 2011:online). A rubric could be used to give more detailed feedback and is used when a student must demonstrate a deeper understanding of certain skills (Erickson 2011:online).

2.6.3 Rubrics

Rubrics can be used to assess a variety of different assignments including literature reviews, presentations, portfolios, group and self-assessment and indicate precisely what students will receive marks for (Makani-Lim *et al.* 2014:3). Rubrics can be seen as a teaching and assessment tool since they can help students to be conscious regarding the skills they need to attain and help them realise which skills they need to build on (Makani-Lim *et al.* 2014:3). Similar to checklists with rating scales, rubrics also have a list of criteria; however, rubrics provide descriptions for each scale. This helps students understand the level of skills they must attain to receive desirable grades (Erickson 2011:online).

Rubrics were initially developed to assist students in their learning by providing descriptive feedback (Erickson 2011:online). Therefore, a rubric does not have to indicate performance according to marks, but may rather have tick boxes, for example, beginning level, proficient level or advanced level. Other rubrics use categories with levels such as satisfactory and unsatisfactory (Makani-Lim *et al.* 2014:3). However, a mark could also be assigned to each level of performance if desired. The significance of a rubric is that students know beforehand what is expected of them and lecturers have the opportunity to give honest feedback (Makani-Lim *et al.* 2014:3). Rubrics are good tools to assess specific knowledge and skills attained by students including information literacy. Students can also see the areas they need to improve (Makani-Lim *et al.* 2014:3).

The effectiveness of a rubric depends on the design and clarity. Lecturers should take their time to make sure the rubric represents specific learning outcomes and must also take the time to explain the rubric to students (Makani-Lim *et al.* 2014:3). Since employability skills are often interchangeable and one skill may consist of a group of different skills, it is advisable that a rubric will consist of different skills or dimensions of one skill, as explained above. For example, when testing to see if a student has attained information literacy, after completion of a task, for example a literature study, the rubric may indicate different skills the students had to convey. This can include, for example, if the student was able to

communicate ideas, if the student used correct and ethical citation of sources, and if the student showed the ability to critically analyse and evaluate data (Makani-Lim *et al.* 2014:3).

Rubrics are also a good method to use during group work. When assessing groups, lecturers cannot be actively involved in each group and can only facilitate. Therefore, they do not always have a precise knowledge of the group dynamic since it is mainly dependent on their observation (Strom & Strom 2011:234). Students must also be able to make fair judgements regarding teammates and their contribution towards teamwork. This could be done in an anonymous way. It is important that group members are actively involved and have a good understanding of each member's contributions or skills (Strom & Strom 2011:234).

2.6.4 Peer assessment

Assessment must not only be done by the lecturer. The responsibility must be shared amongst students (Strom & Strom 2011:235). Working and assessing in groups can help students learn from each other (Nagarajan & Edwards 2014a:22). Assessment can sometimes be objective and therefore self- and group assessment helps the lecturer to have a better idea of students' ability and better feedback could be given to students (Fidalgo-Blanco *et al.* 2015:150).

Lecturers may know the subject field, but teammates know the group dynamics and are able to give the best judgement regarding the contribution of each member (Strom & Strom 2011:235). Feedback from peers is crucial since they have a more realistic picture of the member's actual contribution (Hughes & Jones 2011:61). However, this requires that the lecturer trusts students' judgements (Strom & Strom 2011:235). Students must therefore be taught how to assess each other, and when using rubrics or rating scales, learn how to use these (Hughes & Jones 2011:61). Peer assessment also motivates students who usually do not partake in group assignments to contribute, since they know they will be assessed by group members and there is a sense of accountability (Strom & Strom 2011:247). It also helps lecturers to focus more on their role to facilitate (Strom & Strom 2011:235). Students who are being assessed on practical demonstrations by their peers not only experience immediate feedback but it also encourages debates among students (Van der Merwe 2013:24).

2.6.4.1 *Peer assessment of teamwork skills*

Many standardised assessment tools exist, especially regarding teamwork skills. Two such tools include the Comprehensive Assessment of Team Member Effectiveness (CATME) and the Valid Assessment of Learning in Undergraduate Education (VALUE) which can be used by team members to evaluate one another's performance and to evaluate their teamwork skills (Hughes & Jones 2011:60). Both tools consist of different aspects that are important for a variety of skills, in this instance teamwork skills, and students can use it to rate other members' performances in different areas. The reason why this is so effective is because this could be done throughout the teamwork process, and students could be given feedback on where to improve on a continuous basis. This is also effective when done before a group project, throughout and after, to evaluate and monitor the developing process (Hughes & Jones 2011:60). Although managing this type of assessment and giving feedback to students might take some extra time from lecturers, teamwork skills are not developed spontaneously, and lecturers need to monitor students, give feedback and help them develop the needed skills (Hughes & Jones 2011:60).

Another effective way to assess a student's teamwork abilities is an assessment tool developed by Hobson and Kesic (2002:147) originally used during corporate training sessions and then later applied to students testing their teamwork skills. The tool is an evaluation or rating form with two columns. The left column consists of 15 positive behaviours essential for teamwork and the right column has 10 negative behaviours known to be dysfunctional for teamwork. Lecturers or peers can use the form to rate each behaviour where after the marks for the positive behaviour as well as the negative behaviour are calculated, and the total of the negative behaviours subtracted from the positive behaviours. This could give an indication of the level of teamwork skills a student possesses (Hobson & Kesic 2002:149). The same type of assessment could also be done with other employability skills where a list of positive and negative behaviour is made regarding the skill assessed, to give an indication to a student of their strengths and weaknesses.

Yet another method is the Teamwork Skills Inventory (TSI) (Strom & Strom 2011:236). This instrument identifies the teamwork skills individuals demonstrate, provides individual profiles of anonymous feedback from peers, compares self and peer observations, identifies where skills need improvement, recognises best skilled students as well as students with less developed skills and gives a user-friendly report regarding the above (Strom & Strom

2011:237). Teamwork skills are again divided into five different clusters including attention to teamwork, seeking and sharing of information, communication skills, critical and creative thinking and relationship with teammates. Each skill is further divided. These five clusters each have five questions to determine how students did in each cluster (Strom & Strom 2011:237). The Inventory is completed online by students regarding their own skills, as well as their teammates and provides quick feedback, limiting the task of lecturers working out scores and other extra administration (Strom & Strom 2011:241). Lecturers and students can see how they graded themselves as well as the anonymous grades their teammates gave them and then start to implement ways to work on the skills they are lacking (Strom & Strom 2011:241).

Students who have the ability to make good judgements regarding their own work will also have the ability to realise where and how they can improve (Lawson *et al.* 2012:4).

2.6.5 Self-assessment

Universities must encourage students to be lifelong learners; however, they must also teach students to be able to assess their own learning and have the capacity to reflect and make informed judgements regarding their own work (Lawson *et al.* 2012:4; Nagarajan & Edwards 2014a:22). Self-assessment will help students improve and build on the important employability skills they need to succeed in the work environment (Lawson *et al.* 2012:4).

When students self-assess, they have a better understanding of what is expected of them (Lawson *et al.* 2012:7). A problem faced by students assessing their own work, is the fact that they often do not understand the meaning of the assessment criteria and do not know exactly what is expected of them, therefore clear assessment criteria must be presented to students (Greenbaum & Rycroft 2014:93; Lawson *et al.* 2012:5; Radloff *et al.* 2008:5; Van Diggelen 2017:130). Furthermore, Lawson *et al.* (2012:7) found that students tend to overestimate their abilities. However, they found that when students assess themselves together with lecturers, they learn to better assess and by the second assignment there is usually a much smaller difference between the marks they give themselves and the marks lecturers give them. This indicates that they learn to assess better over time by practising (Lawson *et al.* 2012:7; Van Diggelen 2017:130).

Self-assessment of students can be compared to the evaluation made by peers. The feedback regarding such a comparison could help students to evaluate their skills and have a more realistic view of the skills they have attained and improve their assessment skills

(Strom & Strom 2011:235). It is important that lecturers make enough time for feedback since the most effective learning takes place when a student receives feedback, and has the opportunity to improve (Hughes & Jones 2011:61).

2.6.6 Feedback

Feedback is an important part of teaching, as well as an important part of assessment (Harden & Laidlaw 2012:30). When assessment takes place, there must be sufficient time set aside for feedback which will assist students in their learning as well as help the lecturer to assess what students have already learned (Harden & Laidlaw 2012:30).

Feedback is also essential to help students learn how to become better at both peer and self-assessment (Tai *et al.* 2016:664). Whether formal or informal, generic or individual, or formative or summative it is essential that students receive feedback throughout the duration of the course regarding their skill development (Greenbaum & Rycroft 2014:93; Kivunja 2015:4). Feedback is valuable since it not only indicates to students what they have done wrong, but also helps students to improve the next time they do a similar assignment and enhances their learning (Hughes & Jones 2011:59). Using feedback helps students to identify the skills they lack and motivates them to improve (Kivunja 2015:3; Strom & Strom 2011:243) while assisting the lecturer to assess student development.

Feedback specifically from employers might increase the employability of students since they have a good idea of what is needed in the workplace (Nagarajan & Edwards 2014a:15). When students have the opportunity to present their work to role players from the workplace, valuable feedback could be gathered (Nagarajan & Edwards 2014a:22). Since this feedback is received in a safe class environment, students can learn from the experience without compromising their confidence (Rowe 206:210).

Furthermore, feedback in the form of comments rather than marks could contribute more positively toward students' understanding where they need to improve (Kivunja 2015:4). Receiving verbal feedback is therefore also valuable (Harden & Laidlaw 2012:30). Students receiving constant feedback could take responsibility for their own learning by monitoring their own progress (Kivunja 2015:4). According to Shieh and Chang (2014:651) somebody who is intrinsically motivated is likely to repeat a task if the task was completed successfully and is a challenge. Providing constant feedback to students will contribute to successful

outcomes that will lead to student's future engagements in tasks and will enhance their interest (Shieh & Chang 2014:651).

Kivunja (2015:3) said that lecturers must teach students to appreciate feedback and respond to it in a positive manner since it will contribute to a student's adaptability skills. When students receive feedback throughout the duration of an assignment, the student can adapt and correct mistakes instead of completing an incorrect task, receiving bad marks and not having the opportunity to work on the mistakes. This teaches the student adaptability (Kivunja 2015:4). Giving students the opportunity to resubmit after feedback will encourage adaptability and problem solving skills (Kivunja 2015:5).

It is always advisable that feedback comments must include sentences which encourage students to think in addition to only giving the answer (Kivunja 2015:3). For feedback to really have an impact, lecturers must have realistic expectations and also show empathy to student's efforts by giving critical as well as encouraging feedback (Kivunja 2015:5). Something valuable that is rarely done is asking students to take time to go through the feedback and write down the things they are going to work on to improve during their next assignment (Kivunja 2015:5). This is a good way of reflecting.

2.6.7 Reflection

Although it is noted that students must experience the workplace, this must not be a passive experience. For students to learn, they need to be actively engaged. When students reflect on what they have experienced, it helps them to realise what they have learned (Helyer & Lee 2014:353). Deep learning takes place when students reflect on a specific assignment, internship or learning experience since it helps them to identify what skills they have developed but also which skills they need to work on (Gliatto & Stern 2009:282). Therefore time for reflection is thus needed after each assignment or experiential opportunity (Lowden *et al.* 2011:vii). Students must have the opportunity to engage in critical thinking as well as reflect critically in class (Greenbaum & Rycroft 2014:93).

Therefore, students must summarise their findings after feedback. Reflective writing is a very effective tool to use when one wants to gauge a student's learning experience (Mayne 2012:239). Literature has indicated that reflective writing is best implemented if the students are informed beforehand on what they should learn from a specific assignment (Mayne 2012:239). Reflective writing helps students to look back on a specific experience

or assignment, critically analyse their experience and helps them realise what has been learned (Mayne 2012:239). This method was used by Hobson and Kesic (2002:150) after using a rating form for teamwork completed by peers showing the student's positive behaviour and negative behaviour during teamwork. Students had to evaluate the feedback and summarise their strengths as well as their weaknesses. To increase the value of this feedback session, open reflections could be held where students discuss their self-evaluation in groups (Hobson & Kesic 2002:150). This does not only have all the valuable contributions of group work but also helps the student with personal development plans by not only writing down which areas need improvement but also how they are going to implement the plan. This will help students focus on specific skill areas and improve their efforts (Hobson & Kesic 2002:150). When students reflect on group work, they can analyse the experience and also learn from it which could help them in future teamwork sessions and also help them to determine where and how they need to improve (Mayne 2012:239).

Effective debriefing takes place when one firstly looks at what happened during the exercise and then evaluates the positive outcome as well as the areas that still need improvement (Lerner *et al.* 2009:322). It also helps team members to evaluate together, recognise what the problems were as a team as well as plan how to prevent these errors in future (Lerner *et al.* 2009:323). It is advisable that a debriefing session usually lasts about 40 minutes to give members a chance to recognise the problems and have a valuable discussion regarding their findings (Lerner *et al.* 2009:323).

2.6.8 Evidence of learning

Since there are so many individuals applying for jobs, employers want evidence that the applicants have certain abilities. Rust and Froud (2011:30) found that employers want examples of how students use feedback to change their approach to a problem, how they motivate themselves and others and push beyond boundaries, and if they have the ability to persuade others by giving examples of situations where they have changed other individuals' point of view. They also want evidence of the skills they have attained and what they could bring to the team. They do not only want to hear that the student is adaptable, but they want an example of where the student has adapted to a new situation or group. Furthermore, they want reliable employees, and having evidence of being reliable is crucial, for example, being on time, time management to ensure everything gets done, staying enthusiastic about one's work and going the extra mile (Rust & Froud 2011:34).

When students are being assessed on these skills and the skills they attain are clearly communicated, employers will be able to recruit graduates based on the fact that they have evidence of the skills they acquired (Holmes 2013:546). This is also known as assessment documentation and helps lecturers and employers know the competencies the students have (Van der Merwe 2013:23). This evidence can be made possible by using personal portfolios (Holmes 2013:546; Van der Merwe 2013:23). It is the student's responsibility to keep the portfolio up to date and record all work related experience, including the number of hours he/she has worked in order to offer evidence to employers of their skills and experience (Lowden *et al.* 2011:vii).

Students often learn certain communication skills that are helpful especially during an interview; however, these good communication skills could sometimes give a misrepresentation of what the student really has to offer. A portfolio can be seen as a systematic collection of evidence regarding a student's work and experience including the hours students have worked as well as the type of work and serve as evidence of the knowledge, skills and even student's attitudes (Srikaew, Tangdhanakanond & Kanjanawasee 2015:765). Therefore, a portfolio is a good illustration where the employer can see what the student has done and learned (Cranney *et al.* 2005:29; Gliatto & Stern 2009:285). It is also a good way for a student to reflect on his/her own work and identify the employability skills they have attained and help to identify which skills need improvement (Cranney *et al.* 2005:29; Gliatto & Stern 2009:285).

2.6.9 Presentations

Also included as a teaching strategy (cf. 2.5.3.3), presentations could also be a valuable assessment method. A good way in which to receive relevant and constructive feedback is to give students the opportunity to present their work to the workplace, for example, industry meetings (Nagarajan & Edwards 2014a:22). Presentations could indicate which skills students have learned, for example, ICT skills, by using a rubric to assess the type of information students use, if they communicate it effectively and if they are using technology to their best advantage (Garces & Black 2015:266).

2.6.10 Capstone projects

Capstone modules were also mentioned earlier as a teaching strategy (cf. 2.5.3.4); however, capstone projects could be a great assessment opportunity of employability skills

since a variety of employability skills developed through the duration of the degree may be assessed as well as how students apply these skills during an assignment. Communication, time management, ability to work in a team and project management may be assessed and students may reflect on the skills they have attained (Nagarajan & Edwards 2014a:22).

2.6.11 Summary of assessment methods of employability skills

It is important that lecturers use different assessment methods to ensure that students have obtained the needed employability skills. Since students usually only focus on the things they get marks for, assessment criteria must include different employability skills. Checklists, rating scales and rubrics can be used to indicate whether or not students have mastered these skills. Peer and self-assessment help students to evaluate the skills gained as well as teaches them how to assess. Furthermore, feedback is an important part of assessment because it helps students to realise what they did wrong, which helps them to improve in the future. When students reflect on their learning, it helps them to realise what they have learned and what they are still lacking. This is important since students need to have evidence of the skills they have gained during their studies. Lastly, doing presentations and capstone projects can contribute to the assessment of the skills students have gained during their studies.

2.7 SUMMARY

Although the main focus of consumer sciences is still well-being, the “family focus” of the consumer science curricula has faded over the recent years and there is a definite focus on consumer issues and the importance of the work environment (Mberengwa & Mthombeni 2012:201). Consumer needs differ from domestic needs (Bailey 2010:250) and therefore the South African curriculum is more consumer orientated.

Due to the fact that knowledge is revolutionary, graduates must develop certain skills to help them adapt, interact and communicate in the changing work environment (Barker 2008:1). These skills should be embedded into the curriculum and different teaching strategies and assessment methods must be used to ensure students attain these skills (Barker 2008:1). It can be concluded that whatever the pedagogy used, literature indicates that the best manner in which to ensure that students attain certain employability skills is to make use of a student-centred approach where the student is actively involved in the teaching and is part of an experience, rather than only listening to a lecturer. It is also

important that real life scenarios and group work are used that mirror actual workplace scenarios to ensure optimum skill attainment.

2.8 CONCLUSION

Chapter 2 included a theoretical framework and provided background to the research problem. Since there is limited literature available regarding employability skills of consumer science graduates, this literature study provided background knowledge regarding employability skills in general. An overview of the teaching strategies and assessment methods that can be used to help students attain the needed skills was also discussed.

Chapter 3, **Research design and methodology**, will explain the research design and methodology that was used to reach the aim of this study.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

In this chapter, the research design and methodology used in this study will be explained. Different methods were used in this study with the aim to construct an employability skills framework for consumer science graduates. The methodology will be explained in detail in this chapter along with information regarding the study population, the sampling techniques, the pilot study, data collection, data analysis and interpretation, validity, reliability and trustworthiness as well as the ethical considerations of the study.

3.2 THEORETICAL PERSPECTIVES ON THE RESEARCH

3.2.1 Theory building

When taking on a new research project, it is important to clearly define the research problem and then examine the best manner in which it can be addressed (Walliman 2011:40). Since the problem that was addressed in this study was the absence of a framework regarding employability skills of consumer science graduates, the researcher had to consider different research approaches/methods in order to address the problem. A quantitative or qualitative approach alone was found to be inadequate to address the problem and therefore both methods were needed to solve the research problem. The literature's theoretical framework (cf. Figure 2.1) as discussed in Chapter 2 (cf. 2.1) was used to build theory regarding the research problem where after the empirical part of the study took place making use of a mixed methods research approach.

3.2.2 Strategy of inquiry and research approach

It is evident that a research approach must be suitable for the research problem and purpose of a study (Creswell *et al.* 2011:7). One particular research strategy that is considered the best for all research does not exist (Denscombe 2010:4). The best research strategy differs for each research project and it is determined by the specific research problem and the goal in mind (Denscombe 2010:4). Since a quantitative or qualitative approach alone was inadequate to address the research problem of this study, a mixed

methods approach was used. Focussing on the research problem and then choosing the best methods to address the problem is a typical pragmatic approach (Creswell 2014b:10).

The researcher also demonstrated a pragmatic worldview during data gathering by collecting different types of data to provide a more comprehensive understanding of the research problem than quantitative or qualitative data would have provided alone (Creswell 2014b:19). This pragmatic mixed methods approach aimed to construct an employability skills framework that will be practical and useful to lecturers and empower students with certain skills (Feilzer 2010:8). Johnson and Christensen (2014:489) add to this by stating that the pragmatic researcher aims to find working solutions to a problem, as is the intention of the framework constructed during this study.

Pragmatism is often viewed as the best paradigm for mixed methods research as quantitative data can generate the big picture of the research problem and qualitative data can refine or explore the problem in more depth (Creswell 2014b:572; Migiro & Magangi 2011:3759) as done in this study. The researcher firstly identified different employability skills employers require from their newly employed graduates through the quantitative phase of the study, and during the second phase, in-depth information was added through qualitative data.

The study followed a mixed methods sequential explanatory research design (Creswell 2014b:11; Creswell & Plano Clark 2011:54,71). Since the qualitative phase took place after the quantitative phase, it was a sequential design (Creswell 2014b:15). Furthermore, the design was explanatory due to the fact that the results from the quantitative data were explored in more depth by the qualitative data. During this study the skills that are required by employers as identified by the quantitative phase, and findings regarding how to teach and assess the required skills from the qualitative phase, were both important for constructing a complete framework. Both methods were therefore emphasised equally (Creswell 2014b:219; Creswell *et al.* 2011:7).

As mentioned above, during phase one, quantitative data collection and analysis mainly determined which skills are required by consumer science employers and also which skills are currently lacking in graduates. These results were used to construct an interview schedule for the focus group discussions during the qualitative phase of the study. The qualitative phase elaborated on the quantitative results (Creswell & Plano Clark 2011:71) by gathering information on how to teach and assess the identified required employability

skills. Integration of the two methods took place at two stages of the research process (Creswell *et al.* 2011:7; Migiro & Magangi 2011:3763) namely after phase one when quantitative data were used to develop the interview schedule for focus group discussions. Further integration took place after the second phase where results from both phases were integrated during the interpretation stage of the study (Migiro & Magangi 2011:3763).

The mixed methods design chosen for this study was most suitable since mixed methods research can answer a wider range of research questions as the researcher is not confined to a single method (Johnson & Christensen 2014:491). This was suitable for this study since the study has six research questions. Another strength of mixed methods research as indicated by Johnson and Christensen (2014:491) is the ability to link theory with practice. In this study the theory was generated by determining the employability skills employers require; however, practical guidelines are also presented as determined through qualitative methods on how these skills can be taught and assessed practically.

3.3 RESEARCH METHODS

The study consisted of two phases, namely a quantitative phase followed by a qualitative phase. A visual representation of the sequence in which the research methods took place can be seen in Figure 3.1. After an in-depth literature study of the topic, the quantitative phase took place. A non-experimental, descriptive survey design was used during the first phase of the study (Creswell 2014b:13). Data obtained during the quantitative phase were analysed and used during the qualitative phase of the study by means of focus group discussions (Johnson & Christensen 2014:235). Interpretation of both quantitative and qualitative data was used to construct a framework regarding employability skills of consumer science graduates.

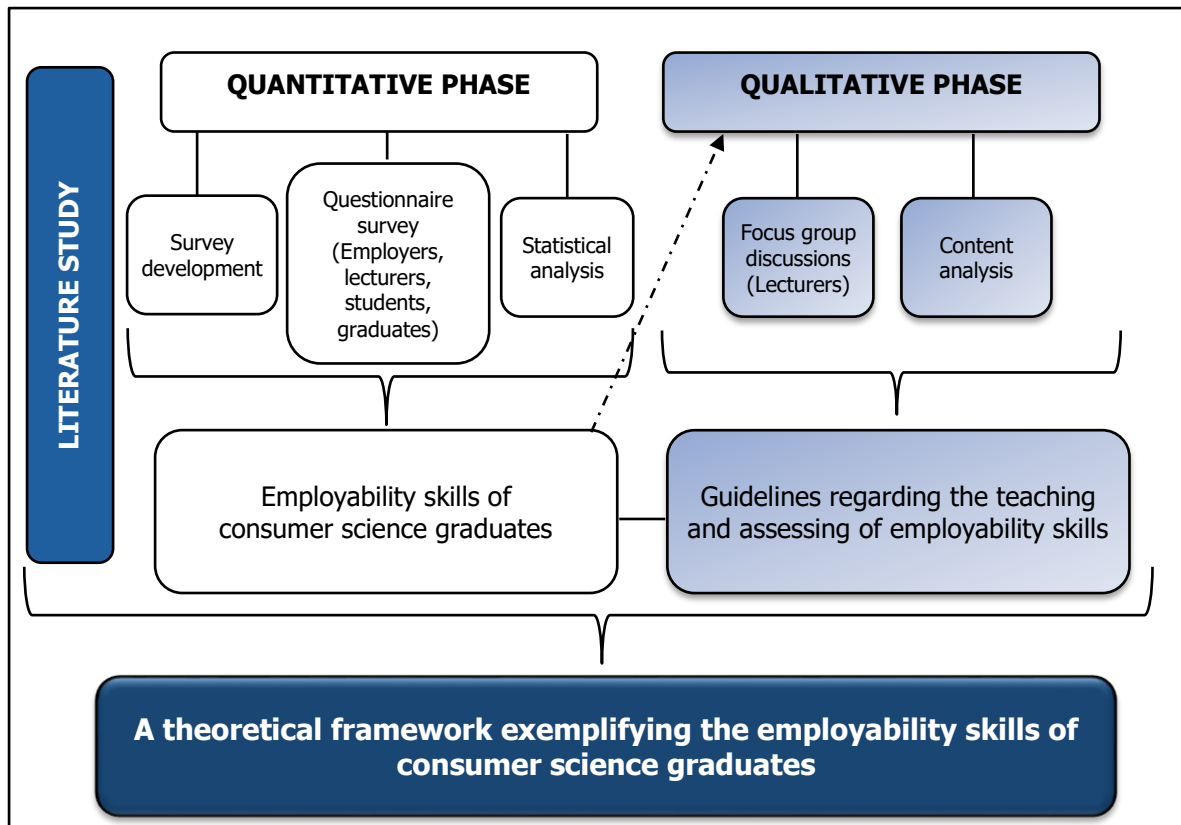


FIGURE 3.1: A VISUAL REPRESENTATION OF THE SEQUENCE IN WHICH THE RESEARCH METHODS TOOK PLACE (COMPILED BY THE RESEARCHER, DU PREEZ 2016)

3.3.1 Literature study

Meaningful research can only take place when a researcher is familiar with the specific field (Strydom & Delport 2011:283). In this study, a thorough literature study enabled the researcher to demonstrate a good background knowledge of the research problem, keep abreast of current findings, theories, definitions and key concepts in the specific field of study, increase her confidence as a specialist and to ensure that similar research had not taken place (Fouché & Delport 2011:135).

The researcher did a thorough literature search using the following search engines: EBSCOhost: Academic Search Premier, AHFS Consumer Medication Information, Business Source Premier, CAB Abstracts, CINAHL with Full Text E-Journals, Environment Complete, GreenFILE, Health Source - Consumer Ed, Health Source - Nursing Academic Ed, MasterFile remier, MEDLINE, PsycARTICLES, PsycINFO; ScienceDirect; Scopus; Web of Science; SAePublications and GoogleScholar. Since a vast amount of literature exists regarding employability skills, the researcher narrowed the search by only searching for employability skills of consumer science graduates. Little information was found, and so, employability

skills alternatives were used including consumer science skills, soft skills, competencies, characteristics, attributes and requirements. As there was not much literature regarding these skills in consumer sciences, a general search was done. A variety of employability skills were identified from literature, and the above-mentioned search engines were used to search for these specific skills in consumer science graduates (for example communication skills and interpersonal skills). As there was limited literature on these skills amongst consumer sciences graduates, the search was expanded to skills in general.

Although various literature sources regarding employability skills were found (Dozier 2015:20; Martin *et al.* 2008a:11; Messum *et al.* 2011:23), little has been found in consumer science literature. Literature related to the research problem includes a USA study by Mosenson and Fox (2011:63). These authors compiled a 21st century Process Skills Model which identified skills leading to student achievement and lifelong learning combining a general skills framework with National Standards of Family and Consumer Sciences in the USA (cf. 1.2). This study did not focus on the needs of the employer. Another study relevant to the research objectives was done by Dozier (2015:20) but was only published after data gathering of this study had been completed (cf. 2.1).

Studies regarding similar topics, for example, employability skills in other disciplines, helped the researcher to learn more about sampling strategies, designs and measuring instruments (Fouché & Delpont 2011:135). Literature was also vital after data collection assisting the researcher in explaining and understanding different findings and comparing results to literature used in the beginning of the study (Creswell 2014a:96).

A theoretical framework was constructed as seen in Chapter 2 (cf. Figure 2.1) to help guide the literature needed for this study. Chapter 2 provided a full discussion on the literature supporting this study. The literature initially explored the history of consumer sciences as a subject field, where after it gave an overview of what the subject field currently comprises of. This helped to understand the consumer science graduate and led to a better understanding of what the consumer science employer expects from these graduates, especially in the South African work environment. Since limited research is available regarding the employability skills of consumer science graduates, the literature explored employability skills in general. An in-depth study was also done regarding the importance and challenges of teaching employability skills including the teaching strategies used to attain these skills and assessment methods available to evaluate whether students have mastered these skills. This formed the background knowledge needed for the study and to

develop a questionnaire survey to be completed by consumer science students, graduates, lecturers as well as employers.

3.3.2 The questionnaire survey

3.3.2.1 *Theoretical aspects*

A survey provides quantitative data regarding information of a population. By using a sample of a specific population, the researcher can generalise the information to the population (Creswell 2014b:158). Surveys include the use of questionnaires (Babbie 2013:230). Johnson and Christensen (2014:191) define a questionnaire as a "self-report data-collection instrument" completed by respondents in a study regarding their thoughts, opinions, feelings, beliefs, attitudes, values, perceptions or behaviour intentions regarding a specific topic. Questionnaires are a quick and economical way of obtaining data from respondents while minimising interviewer bias (Babbie & Mouton 2010:258,266). However, the researcher must take certain aspects into consideration when planning to use questionnaires.

A questionnaire must always be user-friendly and have an acceptable appearance; it must be comprehensible and questions must be straightforward (Maree & Pietersen 2016b:177-179). To help the respondents better understand the study and questions in the questionnaire, it is beneficial to start the questionnaire with some background regarding the study followed by instructions on how to complete the questionnaire (cf. Appendix A). These instructions should be clear and easy to follow (Maree & Pietersen 2016b:178). A questionnaire should preferably not take longer than 30 minutes to complete; this timeframe should be tested by the pilot study (Maree & Pietersen 2016b:179). The questions should follow a sequence where questions on the same topic follow each other and questions with similar responses are in a logical order. Easy to answer general questions at the beginning of the questionnaire help to put the respondents at ease (Maree & Pietersen 2016b:179).

The researcher can use open-ended or closed-ended questions (Babbie 2013:231). Open-ended questions allow for in-depth answers by respondents. Although used mostly with qualitative data collection, it can also be included in quantitative questionnaires (Babbie 2013:231). Closed-ended questions are more frequently used in questionnaire surveys since they provide the respondent with a list of answers to choose from (Babbie 2013:231).

Furthermore, the manner in which questions are asked is also important. Questions need to be clear and comprehensible. For results to be reliable, it is important that respondents understand the questions and that all the respondents interpret questions similarly (Babbie 2013:232). Reliable results can also be increased by avoiding double-barrelled and double-negative questions (Babbie 2013:232). The researcher must make sure each question requires a single answer and does not include multiple concepts in one question; keeping questions short is recommended (Babbie 2013:232; Johnson & Christensen 2014:195). It is also important that the respondents are comfortable with the language used in the questionnaire; it must be understandable and familiar to the respondents in the study (Johnson & Christensen 2014:194). The researcher must only ask questions relevant to the research topic (Babbie 2013:234) and questions must not lead the respondent to a certain answer (Johnson & Christensen 2014:196).

Based upon the type of respondents, the researcher can decide to use interviewer-administered questionnaires, or self-administered questionnaires where the questionnaires are handed out to respondents; a hard copy can be mailed or an electronic survey can be used (Johnson & Christensen 2014:194).

3.3.2.2 *Employability skills questionnaire*

With the aim of constructing a framework exemplifying employability skills of consumer science graduates, information regarding the skills employers require from consumer science graduates was needed. During the first phase of the study a non-experimental, descriptive survey design was used (Maree & Pietersen 2016a:171). A descriptive design was suitable since the research question involved "what" skills are needed by graduates - being a typical descriptive question (Jansen 2016:10). Surveys were used to obtain quantitative information in order to describe the research topic (Maree & Pietersen 2016b:174). A cross-sectional design was used where data were collected at one point in time from employers, lecturers, students and graduates (Creswell 2014a:404). The researcher made sure to take all aspects mentioned above (cf. 3.3.2.1) regarding the planning of a questionnaire into consideration.

The target population was expected to be adequately literate; therefore, self-administered questionnaires were used due to the cost-effectiveness, speed and lack of interviewer bias (Babbie & Mouton 2010:258,266). Furthermore, as indicated above, respondents need to be comfortable with the language used in questionnaires (Johnson & Christensen

2014:194). English is not only a global language (Neeley 2012:117) but even though South Africa has 11 official languages, English is still the dominant language used in public and economic spheres in South Africa as well as the language most used in South African schools (Casale & Posel 2011:385). Since the target population was expected to be adequately literate, and English is the general language used in the corporate environment, self-administered English questionnaires (cf. Appendix B-E) were used. Questionnaires ensured anonymity of respondents and since self-administered questionnaires are more ideal for sensitive issues, it was the best option since employers, lecturers, graduates and students were able to provide answers knowing their names will not be connected to the questionnaire (Babbie & Mouton 2010:262).

Questionnaires had to be sent to different universities and workplaces; therefore, electronic surveys were suitable (Babbie & Mouton 2010:259) by making use of EvaSys, a web-based survey programme. However, electronic surveys were only used for employer, lecturer and graduate questionnaires. Questionnaires completed by students were handed out as hard copies during class to ensure a maximum response rate from students.

Questionnaires regarding employability skills have been developed and used by a variety of authors and published in accredited journal articles (Blom & Saeki 2012:38; Singh & Singh 2008:20). However, these questionnaires either dealt with only certain aspects of employability skills and/or are developed for other fields of study and were thus not entirely applicable to consumer science graduates and/or are only developed for a specific sample, for example, only for employers or students and not all four samples as indicated in this study. Therefore, modifying an instrument was seen as the best manner in which to develop the questionnaire for this study. The questionnaires in Appendix B to E were developed in a correct manner by locating relevant existing questionnaires from published journal articles (Blom & Saeki 2012:38; Singh & Singh 2008:20), obtaining the complete questionnaire from authors by means of e-mails stating that the author will be acknowledged if the researcher uses the questionnaire, and making changes to fit the objectives of the study (Creswell 2014a:175). The questionnaire formatting was done by the researcher and sent to an Evasys officer who helped convert the questionnaire to a user friendly electronic version (cf. 3.3.2.5). The final formatting of the questionnaire layout was evaluated by the researcher and study promoters. Each of the four sample groups received a similar questionnaire applicable to them.

An employability skills questionnaire developed by Singh and Singh (2008:20) was used in the study, as an employability skills questionnaire focussing on consumer science graduates only could not be found. The researcher evaluated applicable questionnaires in health professions, however these questionnaires were not suitable for consumer science graduates as these were more focused on either patient/health care, confidentiality or clinical skills (Katowa-Mukwato *et al.* 2014:157; Morreale *et al.* 2011:193). Other questionnaires were considered focussing on finance graduates (Wye & Lim 2009:97), library and information sector graduates (Stephens & Hamblin 2006:220) and computer sciences (Wickramasinghe & Perera 2010:231), however these questionnaires were very subject specific and not suitable for the aim of this study. The questionnaire developed by Singh and Singh (2008:20) was originally constructed to determine the employability skills of graduates in general, and was seen as most appropriate to apply to consumer sciences.

As stated in chapter 2 (cf. 2.4) employability skills are grouped differently in literature. For example, some authors use the term human skills for teamwork and ethics, whereas others place teamwork as a separate skill (Kulkarni & Chachadi 2014:69). Singh and Singh (2008:20) group employability skills into 11 skills, constructing a questionnaire for both employers as well as graduates. What made this questionnaire more appealing is the fact that these authors did not only list the 11 skills and asked respondents to rate their importance, but they also divided each skill into smaller parts to rate the importance of different aspects of each skill, providing a more in-depth understanding of each skill and its importance.

In addition, Singh and Singh (2008:20) included English language proficiency as an independent skill. As explained in 2.4.2, South Africa has 11 official languages (cf. 2.4.2) however, English is seen as the main language used in the work environment. Also, the two universities included in this study are traditionally Afrikaans institutions, and English is not necessarily students' first language. Therefore it was valuable to determine the importance of this skill.

The questionnaire only focused on the importance of each skill, and since the objective of this study included the competence of graduates regarding each skill, aspects of a questionnaire developed by Blom and Saeki (2012:38) were also used. These authors are of the opinion that it is important to determine which skills are needed, as well as determining skills gaps. Therefore, the questionnaire used in this study also determined respondents' perceptions on graduate's competence in each skill.

The questionnaires (cf. Appendix B-E) include two different sections, namely:

- Section A: Demographic information of respondents

This section includes demographic questions concerning personal characteristics of each respondent including gender, race, employment and study information. Respondents did not have to give their names or other personal identifiers in order to ensure anonymity. Similar to the study done by Singh and Singh (2008:20), the current study included more than one sample group and the questionnaire had to be altered according to each group. For the employer's questionnaire, Singh and Singh (2008:20) asked respondents to indicate the industry they work in, gender, nature of their company, race, number of vacant positions in the company, highest academic qualification, age, work experience, job position as well as the type of institution their graduates graduated from. Since respondents in this study had to adhere to certain inclusion criteria (cf. 3.3.2.3), employers were also asked whether or not they had ever employed or worked with newly employed consumer science graduates. All demographic information as in the questionnaire by Singh and Singh (2008) was included in this study with the exception of the question regarding vacant positions since it was not relevant to the objectives of this study.

For the graduate's questionnaire, Singh and Singh (2008:20) requested respondents to indicate their gender, highest qualification, race, institution they graduated from, age, job position, if their current field is related to their field of study, the industry they work in and whether or not they are currently employed. In this study, respondents also had to indicate whether or not they have completed their degree in the last seven years as well as their gender, subjects they majored in, race, age, highest academic qualification as well as the institution they graduated from, in order to adhere to the inclusion criteria of the study.

Singh and Singh (2008:20) did not include students and lecturers in their study. For the purpose of this study, the questionnaire was altered for these groups while ensuring that the demographic information is comparable to the employer and graduate groups. As per the inclusion criteria of the study, lecturers were requested to indicate if they are academic staff members as well as their gender, subjects they specialise in, race, age, highest qualification, years of work experience, which students they lecture as well as the university they work for. Students had to indicate whether they are currently registered consumer

science students, as well their gender, subjects they major in, race, age, whether or not they have work experience as well as which university they are registered at.

- Section B: Employability skills information

This section consists of Likert scales determining employability skills of consumer science graduates. Different items related to the 11 employability skills as well as aspects of each skill were included similar to the questionnaire by Singh and Singh (2008:20). The questionnaire administered by Singh and Singh (2008:20) only determined respondents' perceptions regarding the importance of these skills. For the purpose of this study, the questionnaire was modified to determine respondents' perceptions regarding graduate's competence in each skill as well. Employers were asked to rate the importance of certain skills as well as indicate to what extent newly employed graduates already have certain skills. Lecturers, students and graduates were asked to indicate which skills they think are important to employers as well as indicate the competency of students/graduates regarding these specific skills. Singh and Singh (2008:20) included a set of questions regarding different types of universities which was not included since it was not applicable to the objectives of this study.

Additional questions were added to the questionnaires for students, graduates and lecturers (cf. Appendix B–D) asking them to indicate how students acquire certain skills. Although the majority of the questions were closed-ended questions, there was the exception of a few open-ended questions where a more in-depth answer was needed. As mentioned above (cf. 3.3.2.1) the researcher ensured that all the questions were clear, did not lead the respondents to certain answers, avoided double barrelled questions with two or more issues included in one question and also avoided double negatives (Johnson & Christensen 2014:194). This was confirmed by the pilot study as discussed in 3.3.2.4.

3.3.2.3 *Sample selection*

Target population

A target population consists of a group of individuals who share specified characteristics that relate to the research problem (Strydom 2011:223). It entails the entire group that is of interest to the researcher (Wilson & Maclean 2011:161). Because the aim of this study was to construct a framework for employability skills of consumer science graduates, the

target population included consumer science employers and consumer science graduates since they will have a good understanding of what is needed from graduates entering the workplace. The target population also included consumer science lecturers and students who are actively involved in the teaching and acquisition of these skills.

Survey population

The survey population included employers who employ consumer science graduates or employees in a managerial position who interact, manage or work with newly employed consumer science graduates on a regular basis. Furthermore, academic consumer science staff members, registered final-year undergraduate consumer science students and consumer science graduates from the University of the Free State (UFS), Bloemfontein campus and the North-West University (NWU), Potchefstroom campus, formed part of the survey population.

These identified universities were suitable for the study since they offer a full-time, on-campus Consumer Science degree in the different domains of the subject field. The UFS follows a parallel-medium teaching system in Afrikaans and English. Therefore, consumer sciences lectures are presented in Afrikaans and English. The majority of students are enrolled for the Afrikaans class. The NWU consumer science modules are presented in Afrikaans, with translation services available for English speaking students. However, these services are seldom used, since the majority of students are Afrikaans.

A third South African university offering a consumer science degree did not consent to participate in the study. The University of South Africa (UNISA) presents an online course with distance learning teaching methods. Students attend class for practical sessions only. The Consumer Science Department of the University of Stellenbosch unbundled at the end of 2005 and alternatively offers a B.Sc. in Food Science or Polymers and Textile. These two universities were not included in the study. The two other universities in South Africa (CPUT & DUT) offering a consumer science degree, focus only on food and nutrition and were not included in this study.

Description of the sample and sample size

Including a whole population in a study is rarely possible, therefore sampling is necessary (Maree & Pietersen 2016c:192). It is important that the sample is drawn in such a way

that it is a representation of the population and results can be generalised if possible (Maree & Pietersen 2016c:192). Since this population included individuals with specific characteristics, non-probability purposive sampling was used (Strydom 2011:232). Hence, individuals were included in the study because they belong to a pre-defined group and were not selected randomly (Wilson & Maclean 2011:165). Since purposive sampling allows the researcher to specify the characteristics of the population needed to answer the research question, it was the most appropriate method to use in this survey (Johnson & Christensen 2014:264).

The sample of employees included representatives of the workplace being employers of consumer science graduates or managerial employees working with them, as well as consumer science graduates, all consumer science academic staff members/lecturers and all final-year consumer science students from the two campuses described. As the sample population consists of four different sample groups, the researcher used inclusion criteria for potential respondents (Johnson & Christensen 2014:264) as described in Table 3.1.

TABLE 3.1: INCLUSION CRITERIA USED FOR PURPOSIVE SAMPLING OF CONSUMER SCIENCE EMPLOYERS, GRADUATES, STUDENTS AND ACADEMIC STAFF MEMBERS PARTICIPATING IN THE STUDY

NO.	CRITERION	DESCRIPTION
1	An employer of consumer science graduates	An employer who employs new graduates in positions that are open to consumer science students will have the knowledge regarding the skills the employers are looking for as well as what skills the new graduates already have
2	An employee in a managerial position who interacts, manages or works with newly employed consumer science graduates on a regular basis	An employee who regularly works with new graduate employees will have the knowledge regarding the skills the employees are supposed to have as well as what skills the new graduate employees already have
3	A consumer science graduate, who graduated within the last seven years from the University of the Free State OR the North-West University	A consumer science graduate will have the knowledge regarding the skills they needed after graduation, the skills they had after graduation as well as how they think they acquired these skills
4	A final-year, undergraduate, registered consumer science student at the University of the Free State OR the North-West University	A final-year consumer science student will have the knowledge regarding the skills they think they need, the skills they think they have as well as how they think they acquired these skills
5	An academic consumer science staff member at the University of the Free State OR the North-West University	Consumer science academic staff will have knowledge regarding different aspects concerning the degree, knowledge regarding the skills students may or may not have, how they got the skills as well as the skills they think the graduates need

In order to be included in this study, respondents needed to comply with one of the above-mentioned inclusion criteria. Consumer science graduates work in diverse environments after graduation and have different job descriptions. Therefore, identifying respondents complying with Criteria 1 or 2 was a complex process. Possible respondents complying with Criteria 1 or 2 were identified by evaluating different vacancies available to consumer science graduates to identify businesses that employ consumer science graduates. Recruiters helping consumer science students to enter the workplace were also contacted to help identify suitable employers. Subsequently, the possible respondents were contacted by e-mail and asked to participate in the research study. Since recruiting these respondents was a challenging task, the researcher aimed to include a minimum of 40 respondents. A total of 61 respondents were included in the study complying with Criteria 1 or 2.

Respondents complying with Criterion 3, namely consumer science graduates who graduated during the last seven years from one of the two identified campuses were also included in this study. The Consumer Science department on each campus was contacted to obtain a list of graduates who completed their degree during the last seven years. Possible respondents were requested via e-mail to be included in the study. A total of 101 graduates were included.

Concerning Criteria 4 and 5, all academic consumer science staff members (18) and final-year consumer science students (113) from the two campuses were invited to take part in the study. Table 3.2 provides a summary of the sample size included in the study.

TABLE 3.2: SAMPLE SIZES OF CONSUMER SCIENCE EMPLOYERS, GRADUATES, STUDENTS AND ACADEMIC STAFF MEMBERS WHO PARTICIPATED IN THE STUDY

UNIVERSITY	STUDENTS	LECTURERS/ACADEMIC STAFF	GRADUATES	EMPLOYERS
University of the Free State	38	5	101	61
North-West University	53	8		
Total	91	13	101	61
Total respondents (N)	266			

Due to the number of final-year undergraduate consumer science students registered and academic consumer science staff members employed at the time of data gathering who were willing to participate, the student sample included 91 respondents complying with Criterion 4 and the sample complying with Criteria 5 included 13 lecturers.

3.3.2.4 *The pilot study*

A pilot study enhances the success of a study by ensuring that the questions included in the questionnaire are clear, not biased, well-structured and have content validity (Creswell 2014b:161). The pilot study for this study was conducted in the same manner as the main investigation with the exception that there was an open space after each question where respondents had the opportunity to criticise and comment on the questions asked in the questionnaire (Strydom 2011:240). Since the pilot study served as a pre-test, it was conducted in the same manner as the main investigation to make sure the data-gathering method is appropriate as well as determine the time to complete the survey (Strydom 2011:241). Therefore, the questionnaire was distributed by e-mail to two consumer science graduates (cf. Appendix C), two lecturers (cf. Appendix D) and two employers (cf. Appendix E) and a hard copy given to two students (cf. Appendix B) who complied with the same inclusion criteria as those in the main study. Only minor changes were made to the questionnaire as a result of the feedback from pilot study respondents, as discussed in 4.2.1. Since the sample size was limited, data gathered during the pilot study were used in the main study.

3.3.2.5 *Data gathering*

To ensure a maximum response rate by students, the researcher contacted a lecturer on each campus and organised a time suitable to the lecturer and students where the questionnaires were handed out during class. Because questionnaires for employers and graduates had to be sent to different workplaces and university lecturers of different campuses in two different provinces, electronic surveys were used (Babbie & Mouton 2010:259) by using the EvaSys e-mail survey collection method for employer, graduate and lecturer questionnaires.

EvaSys is a web-based survey programme which assists the researcher with data gathering. After ethical approval for the study was granted, the questionnaires were sent to an EvaSys officer. The researcher had to provide evidence of an approved proposal, ethical clearance of the study and questionnaires, consent where relevant and a list of e-mail addresses of the respondents of the study in Excel format.

The researcher met with the EvaSys officer and agreed on the timeframes and procedures of the questionnaire distribution and both signed an EvaSys project agreement. The EvaSys officer created the questionnaire on the system where after it was sent to the researcher for evaluation and possible changes. The researcher, with the help of the study promoters, evaluated the questionnaire and modified the questionnaire format until they were completely satisfied. Thereafter the questionnaires were ready for distribution.

The respondents were notified by e-mail that the questionnaire would be sent. Respondents completed the questionnaire online and responses were updated to the system automatically. Respondents sometimes take a long time to complete questionnaires (Best & Kahn 2006:324). The EvaSys system could detect who had not replied and followed-up on respondents and reminded them about the questionnaire. This led to additional responses (Best & Kahn 2006:324); however, the response rate was still low. A second reminder was sent which resulted in minimal additional responses. Accordingly, the researcher sent a personal e-mail to respondents requesting them to complete the questionnaire. Thereafter the EvaSys officer closed the survey collector once the agreed date had been reached. The final survey results were converted to Excel and exported in SPSS format, ready for data analysis to take place. The hard copy student questionnaires handed out during class were taken to the Evasys officer to be scanned into the Evasys system where after results were also converted to Excel and exported in SPSS format, ready for data analysis.

3.3.2.6 *Data analysis*

Data were analysed by the Department of Biostatistics, University of the Free State and the interpretation of the results was done by the researcher. Descriptive statistics were reported using frequencies and percentages for categorical data and ranges, means with standard deviations, and medians for continuous data.

The employability skills portion of the questionnaire (cf. Section B of Appendixes B–E) was first evaluated for its consistency and suitability and then used in further analysis. The former entailed a calculation of the reliability of the scale using Cronbach's alpha coefficients for the eleven subsections. The latter entailed the evaluation of the construct validity of the scale through the use of factor analysis to determine whether the items do in fact relate to the intended categories. Because of the small sample size relative to the number of items, a principal component analysis was performed. The scale was used to evaluate employability skills by calculating mean subtotals for each of the 11 employability skills.

Means were used because the various subscales did not consist of like numbers of items. Using the mean allowed better comparison of scores between subscales, and since the mean is related to the total, would make no difference to the results. Furthermore, a numerical transformation was applied to convert each score from the restrictive range of 1–4 for the Likert scale, to 0 to 100. These skills were then rated according to relative importance within each group (employers, students, lecturers, graduates) and the differences in the scores between the four groups were tested with a multivariate analysis of variance (MANOVA), as inter-relatedness between the 11 skills (the dependent variables) should be assumed. Post hoc tests were done to indicate the differences among the means to indicate which means differ significantly from each other (Coolican 2014:586). Scheffé's tests were used, which consider all the groups (employers, students, lecturers, graduates) and possible comparison combinations of the group means indicating the significant differences between the groups (Coolican 2014:586). The Scheffé test is considered better where group sizes are not equal, and it is a more conservative test, although it may be at the expense of some statistical power.

Lastly, difference scores between the rating given to the relative importance of each item and the degree to which the respondent (employer, lecturer, student, graduate) believes graduated students possess that particular skill was also determined. The subtotals of the difference scores were also calculated and analysed as above. These identified areas in which skills gaps in the training exist.

3.3.2.7 *Data interpretation*

A comparison was made between the skills employers require from graduates and the skills lecturers, students and graduates believe graduates should have. Furthermore, it was determined if employers believe newly employed graduates have these specific skills which were again compared to students', lecturers' and graduates' opinion of whether or not graduates are in possession of these skills. The skills employers require were compared to the skills graduates have. Data analysed were used to determine how students, lecturers and graduates believe they acquired these skills. Results were interpreted and an overview of the findings was given in Chapter 4. The interpretation of the data was also used to construct the interview schedule for focus group discussions during the second phase of the study. The data were used to help construct a framework for employability skills of consumer science graduates.

3.3.3 Focus group discussions

3.3.3.1 *Theoretical aspects*

A focus group discussion can be a structured, semi-structured or unstructured interview which allows a researcher/interviewer to question several individuals simultaneously while being systematic (Babbie 2013:349). Typically, a group of individuals will be brought together in a private and comfortable environment to engage in a guided discussion regarding a specific topic (Babbie 2013:350). A focus group discussion is a small group of people usually with specific characteristics who are purposively selected since specific information with regards to a research problem is needed (Johnson & Christensen 2014:235; Silverman 2013:213). The participants are selected due to their knowledge of or relevance to a certain topic (Maree & Pietersen 2016c:198). The researcher therefore selected participants who could assist the researcher to answer the research questions (Creswell 2014b:189). In this case, consumer science academic personnel were identified since they had knowledge regarding the teaching of consumer science students and their employability skills. Focus groups are normally useful to compliment other methods of data collection and provide in-depth information in a fairly short period of time (Johnson & Christensen 2014:236). It is important that the facilitator of the group has the skill to facilitate the group, making sure there is not an individual who is dominating the group and ensuring that everybody is participating (Babbie 2013:350; Cowton & Downs 2015:S56). Furthermore, the facilitator must not bring his or her own view in the group (Babbie 2013:350).

3.3.3.2 *Employability skills focus group discussions*

During the second phase of the study, focus group discussions were conducted with consumer science academic staff members from the two different university campuses. According to Goodwin *et al.* (2012:8) a valuable and functioning framework is best constructed by using input from individuals who are most likely to use the framework. Therefore, consumer science academic personnel were seen as the most appropriate participants not only because they have the best knowledge regarding the teaching and assessing of these employability skills but also since the framework is mainly intended to be used by them.

An independent facilitator facilitated the group discussions, posed open-ended questions to the group, involved everybody in the group and did not allow certain people to dominate the group (Johnson & Christensen 2014:235; Wilson 2012:130). Data gathered during the first phase of the study were analysed and used to develop an interview schedule that was presented to the focus groups. This interview schedule was sent to the Ethics Committee of the Faculty of Health Sciences at the University of the Free State for approval prior to the focus group discussions. The focus group discussions were recorded, transcribed and analysed (Silverman 2013:213).

3.3.3.3 *Sample selection*

Target population

The qualitative phase of this study focused on the teaching strategies used to teach employability skills as well as the assessment thereof. Therefore, the target population for phase two included lecturers involved in the teaching of these skills since they have suitable knowledge regarding the teaching and assessment of these skills.

Survey population

The survey population included academic consumer science staff members at the University of the Free State (UFS) and the North-West University (NWU). These participants were also included in the first phase of the study.

Description of the sample and sample size

Similar to phase one, non-probability, purposive sampling was used (Strydom 2011:232) and suitable participants for the focus group discussions were selected from a pre-defined group (Wilson & Maclean 2011:165). This study aimed to include all academic consumer science staff members willing to participate from the two identified campuses. The number of participants included in each focus group discussion depended on the number of academic staff employed and willing to participate at the time of data gathering on each campus. This included 10 possible participants from the UFS and eight possible participants from the NWU. Focus group discussions usually consist of six to 12 members (Johnson & Christensen 2014:235); therefore, one focus group discussion could be conducted on each campus. Subsequently, the focus group discussion at the UFS included six participants and the NWU focus group discussion included seven participants.

3.3.3.4 *The pilot study*

Since this study aimed to include all the consumer science academic staff from each campus in the respective focus group discussions, it was difficult to conduct a pilot study (exploratory interview) beforehand. It is not uncommon for the first focus group discussion to also be the pilot study and include the data in the main study (Greeff 2011:370) as was done in this study. However, pilot interviews were done with the promoters, to test the interview schedule. The focus group facilitator who is an expert in conducting focus group discussions also evaluated the interview schedule and discussed each question with the researcher before the focus group discussions took place. Even though a complete pilot was not done, pilot interviews with promoters and the facilitator assisted the researcher to evaluate the questions and to become comfortable with recording devices (Marshall & Rossman 2011:96).

3.3.3.5 *Data gathering*

Focus group discussions can take up to three hours, therefore the sessions must be held in a comfortable setting as participants who are comfortable and content with one another tend to provide richer information (Browne 2005:54; Greeff 2011:371). As a result, the focus group discussions were held on each campus in a comfortable location known to the participants. Each focus group discussion involved only members from the specific campus and therefore the participants were familiar with each other.

The independent facilitator facilitated the focus group discussions without suggesting answers. The researcher acted as an assistant and took field notes, recorded seating arrangements, captured non-verbal behaviour, and highlighted all the salient themes derived from the session (Greeff 2011:272; Phillippi & Lauderdale 2017:1,3,5). The researcher did not form part of the focus group discussions and only evaluated the situation. The independent facilitator who guided the focus group discussions was prepared, friendly and made sure all the participants were at ease (Greeff 2011:271). Before the focus group discussions were conducted, the researcher prepared the seating arrangements so that all participants could make eye contact. Refreshments were served and two recording devices were used to record the focus group discussions (Greeff 2011:371; Cowton & Downs 2015:S62-S63).

The facilitator began the focus group discussions by welcoming all the participants and introducing herself as well as the researcher (assistant). The research problem was clearly explained as well as the procedure of the focus group discussion. Participants received stickers where they could write down a number or any name which was used to refer to one another to ensure anonymity during data transcription. Participants were asked to speak one at a time since recording devices were used. The skills required by employers as identified during the quantitative phase of the study were presented to the focus groups through the interview schedule. A short definition of each skill was provided to eliminate possible confusion where after the participants were encouraged to share their knowledge regarding the teaching of each skill (referring to different teaching strategies) as well as the assessment methods necessary for the attainment of these skills. The facilitator used verbal probing techniques to encourage participants to elaborate on answers where needed. The facilitator proceeded to the next question on the interview schedule; each time enough information on a topic had been gathered.

Although all the participants understood English, the majority of them were Afrikaans speaking. Individuals are more prone to participate and elaborate in their home language (Planas & Civil 2013:375) and therefore they were allowed to participate using a language (Afrikaans or English) of their choice. Questions were posed in English, but also repeated in Afrikaans.

At the end of the session, the facilitator asked the participants for any last comments and briefly summarised the main themes to elicit any last ideas. Finally, the facilitator thanked the focus group discussion members for their participation. After the session, the facilitator and researcher reflected on the focus group discussions and made notes (Greeff 2011:372; Phillippi & Lauderdale 2017:6). The researcher then transcribed the recorded data, which was also checked for accuracy by an independent observer who compared the recordings to the transcripts. Afrikaans data were translated and again checked for accuracy by an independent observer. To ensure the trustworthiness of the data, the transcribed and translated data were sent to focus group participants for confirmation. This process, known as member checking (McMillan 2012:303) gave the participants the opportunity to review the transcripts and ensure it is a true reflection of the focus group discussions.

3.3.3.6 Data analysis

The transcripts were analysed through close reading and thematic analysis. Emerging themes and patterns were coded by using descriptive words representing the emerging trends (Babbie & Mouton 2010:493; Creswell 2014b:198). After all the coding was done, the researcher evaluated the codes and grouped similar codes or concepts together with the aim of generating the major themes that emerged from the data (Creswell 2014b:198; Schurink, Fouché & De Vos 2011:411). These themes were named by the researcher and supported by different categories and sub-categories as well as quotes from participants (Creswell 2014b:198; Schurink *et al.* 2011:411). After all the different themes, categories and sub-categories were grouped together, interpretation of the data took place. Categories and sub-categories were only used where needed.

3.3.3.7 Data interpretation

The aim of the qualitative phase was to gain in-depth information regarding the teaching strategies and assessment methods of the employability skills that were identified during the quantitative phase. Analysed data were interpreted to determine which teaching strategies should be implemented to ensure students acquire the identified employability skills required by employers and which assessment methods should be used to ensure the acquisition of these skills. The interpretation of the quantitative and qualitative data was used to construct a complete and detailed framework for employability skills of consumer science graduates. This framework is theoretical in nature and has two main components. Firstly, it provides information regarding the employability skills consumer science employers require from consumer science graduates as determined by this study. Secondly the framework provides a visual presentation followed by in-depth information regarding the teaching and assessment strategies that can be used to ensure these identified skills are being acquired by students.

3.4 ENSURING THE QUALITY OF THE STUDY

3.4.1 Validity

Validity is present when an instrument measures what it is intended to measure (Pietersen & Maree 2016:239). In this study face validity, content validity and construct validity were present (Pietersen & Maree 2016:240).

Face validity is an indication that an instrument appears valid (Pietersen & Maree 2016:240). Although this type of validity cannot be tested, by using experts from the Faculty of Health Sciences and department of Biostatistics at the University of the Free State to inspect and evaluate the questionnaire, face validity was ensured.

Content validity is an indication that an instrument covers all the content of the problem to be measured (Pietersen & Maree 2016:240). By doing an in-depth literature study regarding all the aspects related to employability skills, combining different questionnaires to ensure all aspects of employability skills are included in the measuring instrument and presenting the questionnaires to experts in the field before finalising the content, content validity was reached. Construct validity was tested through the use of a principal component analysis as explained in 3.3.2.6.

3.4.2 Reliability

Reliability can be seen as the degree in which an instrument can be used repeatedly on different subjects of the same sample and give the same outcome in each instance (Pietersen & Maree 2016:238). Since four samples were used, the reliability of the questionnaire was ensured by making sure the questions are clear, to ensure that all respondents interpret questions in the same manner (Creswell 2014a:177). The pilot study helped minimise errors and unclear questions that occurred in the questionnaire (Muijs 2011:44). Reliability of the final scale was checked through the computation of Cronbach's alpha coefficients. Furthermore, data gathering of each sample group was done in exactly the same manner as the rest of the respondents of the particular sample group. All respondents belonging to the sample group received the questionnaire in the same manner with the same timeframe to complete at a time convenient to them (Creswell 2014a:177).

3.4.3 Trustworthiness

Trustworthiness is explained as the believability of research findings (Babbie & Mouton 2010:276). Giving a detailed discussion regarding the purpose and methods of a study enhances the credibility or trustworthiness thereof (Maykut & Morehouse 1994:144) as done in this study. Different measures are used to ensure the accuracy of findings (Brink, Van der Walt & Van Rensburg 2012:171). In this study trustworthiness was enhanced by credibility, transferability, dependability and confirmability (Marshall & Rossman 2011:40).

Credibility concerns the accuracy and appropriateness of the research findings (Denscombe 2010:299). Focus group discussions were audio-recorded to ensure all data were captured adequately and were also transcribed as soon as possible in order to ensure quality data and credibility was enhanced by making use of member checking (McMillan 2012:303). Transcribed data were sent to focus group participants for revision. Peer debriefing was also used where an independent observer and promoters were asked to review if the results were correctly interpreted from the data, enhancing the credibility (McMillan 2012:303).

Transferability concerns whether or not and to what extent the research findings can be transferred to other contexts (Denscombe 2010:300). Purposive sampling helps to enhance the transferability by selecting participants according to their knowledge regarding the research problem (Brink *et al.* 2012:172). By conducting focus groups on different campuses using purposive sampling, a greater representation of the population was ensured. Transferability was also enhanced during this study by giving a comprehensive description of the entire research process (McMillan 2012:306).

Dependability has to do with the fact that the research instrument will produce the same results if a different researcher were to use it in the same context (Brink *et al.* 2012:172; Denscombe 2010:300). Although difficult in qualitative research, explaining the methods and analysis in as much detail as possible, enhances the dependability of the study. The researcher gave a detailed record of the research process and provided as much detailed feedback as possible on each step during the research process (Denscombe 2010:300).

Confirmability is also known as objectivity of the researcher and is needed to ensure findings that are not influenced by the researcher conducting the research (Denscombe 2010:300). The independent facilitator only facilitated the focus group discussions and did not lead the participants to a specific answer. Data will also be kept to allow confirmation if any enquiries arise. Peer debriefing furthermore helped to ensure that the results were correctly interpreted (McMillan 2012:303).

3.5 ETHICAL CONSIDERATIONS

3.5.1 Approval

Approval for the research project was obtained from the Ethics Committee of the Faculty of Health Sciences at the University of the Free State (ECUFS 220/2014). This approval

stipulated that all the relevant authorities of the universities included in the study must give their consent. After approval for the research project was obtained and an ethics number for the study had been issued (ECUFS 220/2014), an approval form with the approved protocol attached and the ethics number was sent to relevant authorities of the universities according to the procedures of each institution. At the UFS, Consumer Sciences is part of the Faculty of Natural and Agricultural Sciences; therefore, approval was required from the Dean of the Faculty of Natural and Agricultural Sciences, the Vice-Rector: Research and the Head of Department of Consumer Sciences. An approval form to include the relevant lecturers and students in the study from the NWU was sent to the Campus Registrar, the Dean of the Faculty of Health Sciences as well as the Head of Department of Consumer Sciences. The signed approval forms are included in Appendix F.

3.5.2 Informed consent

To ensure that the survey is ethical the respondents should be informed regarding the study they are voluntarily part of (Floyd & Fowler 2014:141). As recommended by Floyd and Fowler (2014:141), in this study a short overview of the study accompanied the questionnaire given to the different sample groups. The overview consisted of an explanation of the purpose and benefits of the study as well as an explanation regarding the research topic (cf. Appendix A). Furthermore, the contact details of the researcher, a statement ensuring anonymity of the respondent, assurance that cooperation is voluntary and instructions on how to complete the questionnaire was given. It was also indicated that the researcher will assume that by completing the questionnaire, the respondents agree to participate in the study. With regards to the focus group discussions, request forms were sent to invite potential participants to participate in the focus group discussions (cf. Appendix G). Consent forms and the interview schedule were sent electronically prior to the focus group discussions again with an overview and explanation of the purpose and benefits of the study (cf. Appendix H-I). Signed hard copies of the consent forms were collected before each focus group discussion took place.

3.5.3 Right to privacy

Privacy of individuals participating in research studies must be protected (Creswell 2014a:166). Therefore, in this study respondents were not asked to write their names on the questionnaire. By using EvaSys for electronic surveys (employers, lecturers and graduates), or questionnaires completed by students in class, no names or personal

identifiers appeared on any data sheets received by the researcher or on data sent for statistical analysis. Number coding was used to ensure the anonymity of the respondents. During focus group discussions, participants were asked to write down any number or name on a sticker which were used when referring to one another and no names were included in any transcripts. This ensured anonymity of participants during the capturing of data.

3.5.4 Minimising of potential misinterpretation of results

The researcher took all possible measures to ensure that the study complied with high ethical standards. Questionnaires were anonymous to increase truthful answers from respondents and the researcher made sure no answers were biased. Aiming to minimise the misinterpretation of results, a qualified statistician was used for the data analysis. Data interpretation was done by the researcher and checked by study promoters and a qualified statistician. Open-ended questions and focus group data were coded by using descriptive words, themes were created and peer debriefing took place.

Respondents had to indicate the competency of consumer science graduates regarding different skills. To prevent the potential of misinterpretation of results, the researcher reflected on the decision to include students in this study since literature has shown that students tend to overestimate their own competencies (Kajander-Unkuri *et al.* 2016:308; Lawson *et al.* 2012:7). However, the goal of asking respondents to indicate graduates' competency was to identify skills gaps in current consumer science students' employability skills, in order to highlight the importance of implementing strategies to ensure that students attain the relevant skills. Besides students, respondents also included consumer science employers, lecturers as well as graduates. Their perceptions on consumer science graduates competency ratings were vital. Therefore, students' overestimation of their own abilities would not affect the construction of the framework of the study.

3.6 CONCLUSION

This chapter provided details of the research design and methods that were used during this study. The next chapter, Chapter 4, entitled **Results of questionnaire survey findings**, will provide an overview regarding the questionnaire survey results.

CHAPTER 4

RESULTS OF QUESTIONNAIRE SURVEY FINDINGS

4.1 INTRODUCTION

In this chapter, the results from the questionnaire survey used during the first phase of this study will be discussed. The questionnaire survey aimed to answer research questions two and three concerning the employability skills consumer science employers require from employees and the employability skills consumer science graduates have after graduation. Results from this phase were also used to construct an interview schedule for the focus group discussions used during the qualitative phase of the study. The aim of the focus group discussions was to add in-depth information regarding the teaching and assessment of the employability skills identified during the first phase of the study. Therefore, information regarding the teaching of employability skills was also included in the questionnaire survey. To ensure reliable and relevant information regarding the research topic, appropriate respondents were needed. Consequently, questionnaires were completed by consumer science employers, or employees working with consumer science graduates. Questionnaires were also completed by consumer science graduates themselves. The above-mentioned respondents were included as they had a good understanding of what is needed from graduates entering the workplace. Consumer science lecturers and final-year consumer science students who are currently in the teaching and learning environment were also included in this study and requested to complete questionnaires (cf. 3.3.2.3; Table 3.1).

4.2 QUESTIONNAIRE SURVEY

The identified sample groups each received a similar questionnaire. Although various questionnaires regarding employability skills exist, an employability skills questionnaire aiming at the specific research problem and designed for the different identified sample groups could not be found (cf. 3.3.2.2) (Blom & Saeki 2012:38; Singh & Singh 2008:20). By modifying an employability skills questionnaire survey constructed by Singh and Singh (2008:20), a survey (cf. Appendix B-E) was developed to achieve the aim of this study (cf. 3.3.2.2).

The questionnaire was divided into two sections consisting of mainly closed-ended questions; however, open-ended questions were used where respondents could provide more information or elaborate on certain issues. Although the questionnaire for each sample group was similar, the wording and phrases differed across the four questionnaires to keep questions relevant for each sample. These different words and phrases would not have contributed to different outcomes. (For example, student and graduate questionnaires referred to *your* competency, since they had to rate their own competency, while lecturers and employers were asked to rate *consumer science graduates'* competency). Also, questions regarding demographic information had to be altered to fit each group. (For example, it was not relevant to ask students to indicate their position at work).

Section A – Demographic information

This section included demographic information regarding the respondents. Questionnaires completed by employers firstly inquired whether or not they have ever employed or worked with newly employed consumer science graduates as part of the inclusion criteria of the study (cf. 3.3.2.3; Table 3.1). Thereafter respondents had to indicate their gender, the industry they work in, race, age, highest level of education, years of work experience, their position at work as well as indicate at which institution the consumer science graduates working with them obtained their degrees.

Questionnaires completed by graduates commenced by asking respondents to indicate whether or not they had completed their degree during the past seven years as part of the inclusion criteria. This was followed by demographic information including their gender, subjects they have majored in, race, age, highest level of education as well as the tertiary institution where they obtained their degree.

For the questionnaires completed by lecturers, respondents had to confirm that they are employed consumer science academic staff members. Further questions included their gender, the subjects they specialise in, race, age, their highest academic qualification, years of work experience, which students (year group) they teach as well as which tertiary institution they are employed at.

For the student questionnaires, respondents had to confirm that they are registered final-year consumer science students and questions regarding their gender, subjects they major in, race, age, if they have ever worked or did an internship during holidays and the university they are registered at were also included.

- Section B – Employability skills information

This section consisted of Likert scales to determine consumer sciences graduates' employability skills. Eleven employability skills, as identified by Singh and Singh (2008:20) were presented in the questionnaire: communication skills, English language proficiency, information, communication and technology (ICT) skills, interpersonal skills, teamwork skills, leadership skills, problem solving skills, adaptability skills, risk taking skills, creativity skills and personal organisation and time management skills. Each skill was further divided into different components as done by Singh and Singh (2008:20). For example, respondents were not asked to rate the importance of communication skills, but rather to rate the importance of different components of communication skills; for example, how important it is to speak clearly so that others understand. Also, to write clearly so that others understand, listen in order to understand instructions and views of others, ask questions in order to understand instructions and views of others, express ideas verbally, one on one, express ideas verbally to groups, make effective oral presentations and put up a good logical argument to persuade others. By indicating the importance of the different components of communication skills a better understanding could be gained regarding the skills employers require, as well as about the specific skills or area of a skill a student is lacking.

For the different questionnaires, employers had to indicate the importance of each employability skill by rating the importance of each component of the different skills. They also had to indicate to what extent newly employed graduates already have certain skills by rating each individual component. The survey ended by asking respondents to indicate the three skills they view as most important for career success followed by an open-ended question where they had the opportunity to mention any other skills not mentioned in the survey which they regard as important for career success.

Graduates, lecturers and students were asked the same set of questions; however, graduates had to indicate the skills they think employers are looking for as well as indicate how competent they think they are regarding each skill. Lecturers had to indicate which skills they think employers require and also indicate graduates' competency regarding each skill. Final-year students had to indicate which skills they think employers require as well as their own skill competency. These three sample groups also had to indicate the three skills they think are most important for career success and had the opportunity to mention

any other skills not mentioned as part of the questionnaire which they also regard as important in an open-ended question.

Graduate, lecturer and student questionnaires included an additional set of questions concerning the acquisition of employability skills by students. The 11 skills were presented to the respondents together with a list of possible ways in which they could have attained each skill. Respondents could choose between five different options of how the different skills could have been learned, namely group assignments, oral presentations, literature studies, being part of university, faculty or hostel committees or part-time jobs or internships. Respondents had the option to choose more than one answer and also had the opportunity to choose "other", and indicate any other methods they think could be used to acquire each skill.

4.2.1 Distribution of the questionnaire survey

As explained in Chapter 3 (cf. 3.3.2.4) a pilot study was done before the questionnaires were distributed. This helped to ensure that the questions were comprehensible and it increased the validity of the questionnaire. During the pilot study, questionnaires were distributed through exactly the same procedure as the main questionnaire including consent procedures (cf.3.5.2). Two employers, two graduates and two lecturers who complied with the inclusion criteria each received an e-mail with a link to the questionnaire from EvaSys [a questionnaire distribution service (cf. 3.3.2.5)]. In addition, to ensure a good response rate from the students, two student respondents received a hard copy of the questionnaire. Respondents included during the pilot study were encouraged to give feedback regarding the questionnaire and share their concerns if any. All the recruited respondents for the pilot study completed the questionnaire with the exception of one graduate. The feedback from the respondents regarding the questionnaire was very similar and since the questionnaires were almost identical, only one respondent for the graduate questionnaire was sufficient. Small changes were made to three of the questions. The option "general Consumer Sciences" was added to question 1.3 regarding the subject field the respondents specialise in, an option for "< Grade 10" and "Honours" was added to question 1.8 regarding the respondents' highest qualification, and the question regarding age changed into an open-ended question where respondents could fill in their age instead of indicating the age group they belong to. Other changes included small technical changes or formatting to the questionnaire and did not include changes to any questions or questionnaire content. Results from the pilot study were also sent to the Department of Biostatistics, UFS for

approval. Since only minor changes were made and the sample groups were small, the results from the pilot study were included in the main results.

After the pilot study was completed and all the necessary alterations were made to the questionnaires, students received hard copy questionnaires including consent forms. Employer, graduate and lecturer questionnaires were distributed through EvaSys by sending an e-mail with a link to the questionnaire. It was indicated in the e-mail (cf. Appendix A) that by completing the questionnaire, the respondent gives consent to be part of the study.

4.2.1.1 *Recruiting respondents*

Since recruiting employers and graduates tends to be a complex process, sample sizes to be included in this study were calculated with the help of the Department of Biostatistics at the University of the Free State. Sample size calculation for the study was complicated by the variations in the sizes of the various study populations as well as variations in the expected response rates (e.g., the population of lecturers was a smaller group, but could be expected to deliver a better response rate), and the different calculations to be performed. For comparison of the correlations in subscale scores, it would be expected that, given a critical value (α) of 0.05 and power ($1-\beta$) of 0.8, groups of 36 would be sufficient to detect an anticipated effect size of 0.7. Disparities in group size could drive the required sample size up. For the Manova analysis, given 4 groups and 11 variables (the subscales), an effect size of 0.0625 could be detected using a total sample size of 224. However, the intention to examine the construct validity of the scales using factor analysis placed an additional sample size requirement, in that a general guideline is to have five times more respondents than items (Beavers, Lounsbury, Richards, Huck, Skolits & Esquivel 2013:2; Huysamen 1989:53), which, for the 60 items included in this study, would require a sample of at least 300. It was thus clear that the different intended analyses had conflicting sample size requirements. It would not be sensible to gather data and not use it in some analyses, which does have the implication that some studies may have higher power than the conventional choice of 0.8.

Furthermore, this quantitative analysis formed only part of the overall study, and served as an entry point to the focus group section of the study. It was decided and specified in the approved protocol that a minimum of 40 employers and 40 graduates would be included in the study, together with as many students and lecturers that could be obtained (cf. 3.3.2.3). Lecturer and student sample sizes depended on the number of employed academic staff as

well as the final year registered consumer science students at the participating universities during data gathering (cf. 3.3.2.3; Table 3.2).

Three universities in South Africa offer an on campus fulltime consumer science degree including food and fashion (cf. 3.3.2.3). All three campuses were invited to take part in the study (cf. 3.3.2.3). One of the universities rejected the request due to an excess of requests to complete a variety of surveys. Therefore, two universities [University of the Free State (UFS), Bloemfontein campus and North-West University (NWU), Potchefstroom campus] were included in the study which influenced the lecturer and student sample sizes. Nevertheless, at the time of data gathering the UFS had ten consumer science academic staff members and the NWU had eight who could be included as possible respondents. At the time of data gathering there were 48 final-year consumer science students registered at the UFS and 65 at the NWU who could be included in the study.

Employers

As seen in Chapter 3 (cf. 3.3.2.3) recruiting respondents for employer questionnaires was done by evaluating different vacancies available to consumer science graduates to determine who the consumer science employers are. However, the majority of vacancies available for consumer science graduates were mostly advertised through recruitment companies who are not authorised to share personal information of their clients. Since the initial plan was also to contact recruiters helping consumer science students to enter the workplace to get employer contact details, the same problem was experienced as recruiters are not authorised to share client/employer information. However, some recruiters did comply and shared some e-mail addresses of suitable respondents. In order to obtain enough respondents, an announcement was placed on the NWU official consumer sciences Facebook page to invite consumer science employers to take part in the study by requesting their e-mail addresses. Employers often visit the Facebook page to place vacancies available to consumer science students. A total of 188 e-mail addresses of employers relevant to the study were obtained.

Graduates

Contact details of consumer science graduates were also needed for the graduate questionnaires. The Consumer Science department of the UFS campus assisted in the gathering of e-mail addresses of their graduates. Unfortunately, many of the e-mail addresses were the official university student addresses and no longer active. The

department of Consumer Sciences at the NWU only had telephone numbers of graduates and not e-mail addresses. Therefore, an announcement was again placed on the NWU official consumer science Facebook page to invite graduates to take part in the study and provide their e-mail addresses to receive a link to the questionnaire. A total of 210 e-mail addresses were obtained.

Lecturers

Information regarding consumer science lecturers is publicly available on official university websites and was therefore easily obtained. Both campuses did however give their consent to include their consumer science academic staff members in the study.

Students

As mentioned previously, final-year consumer science students were also included in the study and they received hard copies of the questionnaire. A lecturer for final-year students was contacted on each campus and a suitable date and time was established to visit the class. The researcher visited each class on the scheduled dates and handed out questionnaires along with consent forms.

4.2.1.2 Increasing the response rate

A low response rate was anticipated due to excessive workload and limited time. Therefore, respondents were informed by e-mail (cf. 3.3.2.5) that a questionnaire is on the way and a few reminders were sent by EvaSys to remind possible respondents to complete the questionnaire. Although different reminders were sent, the response rate remained very low after five weeks. A personal e-mail by the researcher requesting respondents to complete the questionnaire was sent, which resulted in additional responses. After seven weeks the questionnaire was closed. Questionnaires were sent to 188 employers who matched the inclusion criteria and a total of 59 questionnaires were completed (Table 4.1). This resulted in a response rate of 31.38%. Since the two pilot responses were also included, it resulted in 61 respondents for the employer questionnaire. A total of 210 questionnaires were distributed to graduates yielding 100 completed questionnaires (47.61% response rate). In addition to the one pilot response, a total of 101 respondents were included for graduate questionnaires. Eleven of the 16 lecturer questionnaires were completed giving a 68.75% response rate. Inclusion of pilot questionnaires yielded a response of 13 of the 18 academic staff participating in this study. The EvaSys officer (cf.

3.3.2.5) converted the data to Excel where after it was sent to the Department of Biostatistics, UFS for analysis (cf. 3.3.2.6).

TABLE 4.1 RESPONSE RATE OF RESPONDENTS

	QUESTIONNAIRES DISTRIBUTED	QUESTIONNAIRES COMPLETED	RESPONSE RATE	TOTAL RESPONDENTS (INCLUDING PILOT)
Employers	188	59	31.38%	61
Graduates	210	100	47.61%	101
Lecturers	16	11	68.75%	13
Students	111	89	80.18%	91
Total	525	259	49.33%	266

Since the student questionnaire was handed out in class, the majority of the students completed the questionnaire. However, class attendance was not 100% and therefore the researcher revisited the classes to ensure that all students willing to complete the questionnaire could do so. Questionnaires were also left at the different lecturers to ensure that all absent students had the opportunity to complete a questionnaire. No additional responses were received. A response rate of 80.18% was obtained for the student questionnaire. Inclusion of two responses from the pilot yielded a total of 91 completed questionnaires from final year students. The hard copies were taken to the EvaSys officer (cf. 3.3.2.5) who scanned it into the system and the data were converted to Excel and sent to the Department of Biostatistics, UFS for analysis.

4.2.1.3 Description of the data analysis

Data were analysed according to the flow of the questionnaire and will be presented in the same manner. Demographic information regarding the four sample groups will be discussed first followed by a description and discussion regarding the employability skills section of the questionnaire. Results were analysed using descriptive statistics (cf. 3.3.2.6).

Results from the open-ended questions helped to elaborate on the quantitative findings. Open-ended questions were analysed by identifying emerging trends and coding was done by using descriptive words. A variety of themes and categories were generated and will be discussed as elaboration on different closed-ended questions.

4.3 DEMOGRAPHIC DESCRIPTION OF THE SAMPLE POPULATION

The four sample groups included in the quantitative phase of this study resulted in a total of 266 respondents who completed the questionnaire survey. This included 91 students, 101 graduates, 13 lecturers and 61 employers. Although more males are entering the consumer science subject field (cf. 2.1), it is still primarily dominated by females. With the exception of the employer sample group including three male respondents, all the respondents were female. The majority of respondents were white (Table 4.2). This was also representative of the sample population, since the majority of consumer science lecturers and students at the two identified universities are white.

TABLE 4.2: DEMOGRAPHIC INFORMATION OF RESPONDENTS

N		STUDENTS		GRADUATES		LECTURERS		EMPLOYERS	
		n	%	N	%	n	%	n	%
266	Respondents¹	91	34.21	101	37.97	13	4.89	61	22.93
261	Gender²	n	%	N	%	n	%	n	%
	Male	-	-	-	-	-	-	3	4.92
	Female	91	100	96	100	13	100	58	95.08
263	Race²	n	%	N	%	n	%	n	%
	Coloured	2	2.22	-	-	-	-	-	-
	Black	2	2.22	1	1.00	1	7.69	3	5.00
	Indian	-	-	1	1.00	-	-	-	-
	White	86	95.56	98	98.00	12	92.31	56	93.33
	Other	-	-	-	-	-	-	1	1.67

1: n and percentages represent row values

2: n and percentages represent column values

Since demographic questions regarding each sample group differed to match the specific sample, demographic information of each sample will be discussed separately.

4.3.1 Students

As seen in Table 4.3, respondents who formed part of the student sample included final-year consumer sciences students aged between 21 and 25 years, with an average age of 21.18 years. Students were asked to indicate the subjects they major in and could choose more than one answer. At the NWU, students enrol for a general Consumer Science degree with either business or tourism subjects. They can later specialise in a specific field after graduation by enrolling for their honours. At the UFS students can either enrol for a fashion focused or food focused Consumer Science degree. However, it is assumed that students indicated the subjects they major in according to the subjects they prefer and the field they want to enter after graduating and most respondents chose more than one answer.

Responses included 59.55% who indicated specialisation in General Consumer Sciences, 28.57% in Fashion/Clothing, 25.27% in Foods, 15.38% in Interior Design, 15.38% in Consumer Behaviour and 4.40% chose the option "other" and indicated through the open-ended questions that they major in business and marketing. Results showed that 41.76% of the student sample were enrolled at UFS and 58.24% were NWU students. The majority of the students (80.22%) had worked during holidays or had done an internship.

TABLE 4.3: DEMOGRAPHIC INFORMATION OF STUDENT RESPONDENTS

N	STUDENT SAMPLE GROUP		
91	Age	Years	
	Minimum age	21.00	
	Average age	21.18	
	Maximum age	25.00	
	Median age	21.00	
91	Which subjects do you major in¹	n	%
91	Fashion/Clothing	26	28.57
91	Food	23	25.27
91	Interior Design	14	15.38
91	Consumer Behaviour	14	15.38
90	General Consumer Sciences	53	59.55
91	Other	4	4.40
91	University	n	%
	UFS	38	41.76
	NWU	53	58.24
91	Internship	n	%
	Yes	73	80.22
	No	18	19.78

1= Participants were allowed to choose more than one option, therefore percentages do not add up to 100%

4.3.2 Graduates

Only graduates who obtained their Consumer Science degree during the past seven years were included in the study. The age of graduate respondents ranged between 21 and 31, with the average age of 24.58 years (Table 4.4). The graduates also had to indicate the subjects they had majored in and could choose more than one option. The results indicated that 37.62% majored in Fashion/Clothing, 46.53% in Foods, 26.73% in Interior Design, 39.60% in Consumer Behaviour, 47.00% in General Consumer Sciences and 1.98% indicated to have majored in something different, indicating obtaining an honours degree in tourism after graduation.

The majority of the respondents (80.20%) graduated from the NWU. The highest qualification included 2 master's degrees, 47 honours degrees and the remainder completed baccalaureus degrees. One respondent indicated the highest qualification to be matric; however, this was regarded as an error since only graduates received these questionnaires.

TABLE 4.4: DEMOGRAPHIC INFORMATION OF GRADUATE RESPONDENTS

N	GRADUATE SAMPLE GROUP		
99	Age	Years	
	Minimum age	21.00	
	Average age	24.58	
	Maximum age	31.00	
	Median age	24.00	
101	Which subjects did you major in¹	n	%
101	Fashion/Clothing	38	37.62
101	Food	47	46.53
101	Interior Design	27	26.73
101	Consumer Behaviour	40	39.60
100	General Consumer Sciences	47	47.00
101	Other	2	1.98
101	University	n	%
	UFS	20	19.80
	NWU	81	80.20
100	Highest level of education	n	%
	Matric	1	1.00
	Diploma	-	-
	Degree	50	50.00
	Honours	47	47.00
	Masters	2	2.00
	PhD	-	-

1= Participants were allowed to choose more than one option, therefore percentages do not add up to 100%

4.3.3 Lecturers

Lecturers' age groups ranged between 29 and 61 years with the average age being 43.30 years with an average of 16.17 years of work experience (Table 4.5). They were asked to indicate the subjects they specialise in and had the opportunity to choose more than one answer. From the 13 respondents, six specialised in Fashion/Clothing, four in Food, two in Interior Design, six in Consumer Behaviour and two chose the option "Other". One respondent indicated in the open-ended question that they specialise in food security, which forms part of food. Eight of the respondents were employed at the NWU and five at the UFS. Six of the respondents had a PhD, six a master's degree and one respondent had a baccalaureus degree. The year groups the lecturers taught were almost equally distributed: 69.23% lectured first-year students, 53.85% lectured second years, 61.54% lectured third

years, 61.54% fourth years and 61.54% lectured post-graduate students. Note that participants were able to choose more than one option.

TABLE 4.5: DEMOGRAPHIC INFORMATION OF LECTURER RESPONDENTS

N	LECTURER SAMPLE GROUP		
10	Age	Years	
	Minimum age	29.00	
	Average age	43.30	
	Maximum age	61.00	
	Median age	42.00	
12	Years of work experience		
	Minimum years	1.00	
	Average years	16.17	
	Maximum years	38.00	
	Median age	14.00	
	Std Dev	10.86	
13	Which subjects do you specialise in¹	n	%
	Fashion/Clothing	6	46.15
	Food	4	30.77
	Interior Design	2	15.38
	Consumer Behaviour	6	46.15
	Other	2	15.38
13	University	n	%
	UFS	5	38.46
	NWU	8	61.54
13	Highest level of education	n	%
	Matric	-	-
	Diploma	-	-
	Degree (Baccalaureus)	1	7.69
	Honours	-	-
	Master's	6	46.15
	PhD	6	46.15
13	Which students do you lecturer¹	n	%
	1 st Year	9	69.23
	2 nd Year	7	53.85
	3 rd Year	8	61.54
	4 th Year	8	61.54
	Post Graduates	8	61.54

1= Participants were allowed to choose more than one option, therefore percentages do not add up to 100%

4.3.4 Employers

The employer sample group included individuals who had previously employed or worked with newly employed consumer science graduates. The samples age ranged from 23 to 64 years, with the average age being 34.50 years and an average of 12.05 years of work experience (Table 4.6). The different industries the respondents worked in included Fashion/Clothing (21.31%), Food (31.15%), Interior Design (8.20%), Marketing (13.11%) and Other (32.79%). Other industries respondents indicated to work in included education,

administration, human resources, agriculture, architectural, community development, hospitality, pharmaceutical as well as library services, highlighting the fact that respondents work in a wide variety of fields. This indicates the diversity and trans disciplinary nature of consumer sciences (cf. 2.2.1.2). Respondents' job positions included top management (18.33%), middle management (31.67%), supervisors (15.00%) and 35.00% indicated a different position. Open-ended question findings regarding job positions listed business owners, lecturers, teachers, sales clerks, assistants and consultants.

The diversity of endeavours graduates partake in was evident. Only 14.75% of the respondents did not have a degree, 29.51% had a baccalaureus degree, 32.79% had an honours, 21.31% had a master's degree and 1.64% had a PhD. The majority of the respondents worked with consumer science graduates who obtained their degrees from the NWU (65.00%) and 10% from the University of Pretoria. In 11.67% of the cases the employers indicated not knowing the university their employees had graduated at, and 13.33% indicated other without specifying which.

TABLE 4.6: DEMOGRAPHIC INFORMATION OF EMPLOYER RESPONDENTS
(Table continues on next page)

N	EMPLOYER SAMPLE GROUP		
58	Age	Years	
	Minimum age	23.00	
	Average age	34.50	
	Maximum age	64.00	
	Median age	31.00	
61	Years of work experience		
	Minimum years	2.00	
	Average years	12.05	
	Maximum years	46.00	
	Median age	9.00	
	Std Dev	9.62	
61	Which industry do you work in¹	n	%
	Fashion/Clothing	13	21.31
	Food	19	31.15
	Interior Design	5	8.20
	Marketing	8	13.11
	Other	20	32.79
60	Job Position	n	%
	Top Management	11	18.33
	Middle Management	19	31.67
	Supervisor	9	15.00
	Other	21	35.00
61	Highest level of education	n	%
	Matric	1	1.64
	Diploma	8	13.11
	Degree	18	29.51
	Honours	20	32.79
	Master's	13	21.31

	PhD	1	1.64
60	University of your employees	n	%
	UFS	-	-
	NWU	39	65.00
	University of Pretoria	6	10.00
	Don't know	7	11.67
	Other	8	13.33

1= Participants were allowed to choose more than one option, therefore percentages do not add up to 100%

4.3.5 Summary of demographics of the sample population

A total of 266 respondents were included in this phase of the study (91 students, 101 graduates, 13 lecturers, 61 employers). Respondents were mainly white females. Ages of students varied between 21 and 25 years and they were registered at the NWU (58.24%) and the UFS (41.76%). The majority (80.22%) had some work experience. Graduates' ages varied between 21 and 31 years and they graduated from the NWU (80.20%) and the UFS (19.80%). Their highest qualification mainly included a baccalaureus degree (50%) or an honours degree (47%). The lecturer's ages were between 29 and 61 years old with an average of 16.17 years of work experience. They were employed at the NWU (61.54%) and the UFS (38.46%) and their highest qualification was primarily a master's degree (46.15%) or a doctoral degree (46.15%). The ages of employers varied between 23 and 64 years with an average of 12.05 years work experience. Their highest qualification was mostly (83.61%) a baccalaureus-, honours or master's degree and 65.00% indicated that they work with NWU graduates.

4.4 RESULTS OF QUESTIONNAIRE SURVEY: SECTION B [Employability skills of consumer science graduates]

Section B of the questionnaire consisted of questions regarding the employability skills of consumer science students/graduates followed by questions regarding strategies to attain employability skills. Results regarding employability skills will be discussed first.

4.4.1 Importance of and competency in components of different employability skills

To determine the importance of different employability skills, 11 employability skills were identified and each skill was further divided into different components as explained in 4.2. By using a Likert scale, respondents had to indicate the importance of each component by

choosing one of the options: not very, somewhat, moderately, important or extremely important. Respondents also had to indicate how competent newly employed consumer science graduates are regarding components of each skill by choosing between the options poor, fair, good, very good or outstanding. Although differences occurred, the majority of respondents indicated that the components of the different skills were mostly important to extremely important. However, opinions regarding the competency of newly employed consumer science graduates varied among the different sample groups. The results for each skill will be presented in the following section. A table was constructed for the results of each skill and the highest scores are highlighted.

4.4.1.1 *Communication skills*

Communication skills were divided into eight different components, namely speak clearly so that others understand; write clearly so that others understand; listen in order to understand instructions and views of others; ask questions in order to understand instructions and views of others; express ideas verbally (one on one); express ideas verbally (to groups); make effective oral presentations and put up a good logical argument to persuade others. Table 4.7 shows how important the different sample groups indicate each component of communication skills to be as well as the competency of graduates regarding the above.

TABLE 4.7: IMPORTANCE AND COMPETENCY REGARDING COMPONENTS OF COMMUNICATION SKILLS

(Table continues on next page)

Speak clearly so that others understand	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	2.20	32.97	64.84
	Graduates (n=101)	-	0.99	1.98	39.60	57.43
	Lecturers (n=12)	-	-	-	50.00	50.00
	Employers (n=61)	-	-	3.28	34.43	62.30
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	-	35.16	45.05	19.78
	Graduates (n=101)	-	3.96	22.77	59.41	13.86
Lecturers (n=12)	-	-	75.00	25.00	-	
Employers (n=59)	1.69	8.47	35.59	42.37	11.86	

Write clearly so that others understand	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	1.10	6.59	47.25	45.05
	Graduates (n=101)	-	2.97	5.94	52.48	38.61
	Lecturers (n=12)	-	-	-	50.00	50.00
	Employers (n=61)	1.64	4.92	13.11	31.15	49.18
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	1.11	1.11	21.11	54.44	22.22
	Graduates (n=101)	-	1.98	24.75	57.43	15.84
Lecturers (n=12)	-	33.33	50.00	16.67	-	
Employers (n=59)	3.39	10.17	37.29	38.98	10.17	
Listen in order to understand instructions and views of others	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	1.10	28.57	70.33
	Graduates (n=100)	-	-	-	27.00	73.00
	Lecturers (n=12)	-	-	-	41.67	58.33
	Employers (n=61)	-	-	-	39.34	60.66
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	-	-	25.56	48.89	25.56
	Graduates (n=100)	-	2.00	14.00	64.00	20.00
Lecturers (n=12)	-	33.33	66.67	-	-	
Employers (n=59)	1.69	13.56	28.81	44.07	11.86	
Ask questions in order to understand instructions and views of others	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	3.30	40.66	56.04
	Graduates (n=101)	-	-	0.99	41.58	57.43
	Lecturers (n=12)	-	-	8.33	50.00	41.67
	Employers (n=61)	-	-	1.64	47.54	50.82
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	-	6.67	36.67	36.67	20.00
	Graduates (n=101)	-	1.98	28.71	46.53	22.77
Lecturers (n=12)	-	41.67	41.67	16.67	-	
Employers (n=59)	3.39	8.47	33.90	44.07	10.17	
Express ideas verbally, one on one	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	9.89	53.85	36.26
	Graduates (n=101)	-	-	16.83	50.50	32.67
	Lecturers (n=12)	-	-	-	83.33	16.67
	Employers (n=61)	-	-	21.31	45.90	32.79
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	4.40	21.98	46.15	27.47
	Graduates (n=100)	-	4.00	32.00	49.00	15.00
Lecturers (n=12)	-	33.33	33.33	33.33	-	
Employers (n=59)	1.69	6.78	37.29	40.68	13.56	
Express ideas verbally, to groups	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	6.59	52.75	40.66
	Graduates (n=100)	-	-	14.00	56.00	30.00
	Lecturers (n=12)	-	-	-	75.00	25.00
	Employers (n=61)	-	4.92	11.48	50.82	32.79
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	8.79	34.07	41.76	15.38
	Graduates (n=101)	-	12.87	45.54	35.64	5.94
Lecturers (n=12)	-	41.67	50.00	8.33	-	
Employers (n=59)	3.39	16.95	33.90	37.29	8.47	

Make effective oral presentations	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=90)	-	2.22	11.11	36.67	50.00
	Graduates (n=100)	-	-	17.00	41.00	42.00
	Lecturers (n=12)	-	8.33	8.33	58.33	25.00
	Employers (n=61)	6.56	6.56	9.84	40.98	36.07
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	-	14.44	30.00	38.89	16.67
	Graduates (n=101)	-	13.86	40.59	33.66	11.88
Lecturers (n=12)	8.33	25.00	58.33	8.33	-	
Employers (n=59)	3.39	13.56	35.59	37.29	10.17	
Put up a good logical argument to persuade others	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	1.10	18.68	42.86	37.36
	Graduates (n=101)	-	1.98	11.88	38.61	47.52
	Lecturers (n=12)	-	8.33	8.33	50.00	33.33
	Employers (n=61)	-	4.92	14.75	42.62	37.70
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	14.29	31.87	36.26	17.58
	Graduates (n=100)	1.00	17.00	32.00	44.00	6.00
Lecturers (n=11)	9.09	36.36	45.45	9.09	-	
Employers (n=59)	5.08	16.95	44.07	27.12	6.78	

The majority of respondents indicated that all the different components of communication skills are important to extremely important. There were, however, differences in how competent the different sample groups rated graduates to be regarding the above. Results showed that most respondents feel that new consumer science employees are good to very good in speaking clearly so that others understand. Although some students (19.78%) and graduates (13.86%) rated themselves as outstanding, no lecturers indicated this and only 11.86% of employers indicated that employees were outstanding concerning the above. Student respondents indicated that graduates are good to outstanding and graduates indicated they are good to very good in writing clearly so that others understand. Although some students (22.22%) and graduates (15.85%) felt their writing skills were outstanding, no lecturers and only 10.17% of employers shared this opinion. Results regarding listening competency differed. All the students believed they were good to outstanding and 84.00% of the graduates felt they were very good to outstanding with listening. On the other hand, all the lecturers indicated that graduates were fair to good and the majority of employers felt they were good to very good with listening.

Although the majority of respondents felt that new employees were good to very good with asking questions to understand instructions and views of others, lecturers mostly rated their competency as fair to good. The same results were seen in the competency of expressing ideas verbally, one to one and expressing ideas verbally, to groups, make effective oral presentations as well as put up a good logical argument to persuade others. In each

instance, the respondents mainly indicated competency to be mostly good to very good and lecturers rated them fair to good. It is also noted that 45.45% of lecturers and 22.03% of employers said that employee's capability to put up logical arguments to persuade others were poor to fair. Overall students rated their competency higher than the other respondents, followed by graduates. Lecturers on the other hand rated the competencies the lowest.

4.4.1.2 *English language proficiency*

English language proficiency was divided into five components and respondents had to indicate the importance of each as well as newly employed consumer science graduates' competency regarding each component. The five components were understanding written information in books and documents such as manuals, graphs and schedules written in English; creating documents such as letters, directions, reports, graphs and flow charts in English; communicating with colleagues in English; not shying away from using English when communicating, and having no problem in speaking English to others. The importance and competency regarding different English language proficiency components are presented in Table 4.8.

TABLE 4.8: IMPORTANCE AND COMPETENCY REGARDING COMPONENTS OF ENGLISH LANGUAGE PROFICIENCY
(Table continues on next page)

	Importance (%)					
	Not very	Somewhat	Moderately	Important	Extremely	
Understand written information in books and documents such as manuals, graphs and schedules written in English	Students (n=90)	-	-	7.78	43.33	48.89
	Graduates (n=101)	-	-	10.89	34.65	54.46
	Lecturers (n=12)	-	8.33	-	58.33	33.33
	Employers (n=60)	-	-	6.67	45.00	48.33
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	1.11	3.33	23.33	52.22	20.00
	Graduates (n=101)	-	3.96	14.85	58.42	22.77
	Lecturers (n=12)	-	16.67	66.67	16.67	-
	Employers (n=59)	-	15.25	33.90	38.98	11.86
Importance (%)						
	Not very	Somewhat	Moderately	Important	Extremely	
Create documents such as letters, directions, reports, graphs and flow charts in English	Students (n=89)	-	-	8.99	46.07	44.94
	Graduates (n=101)	-	0.99	11.88	30.69	56.44
	Lecturers (n=12)	-	8.33	8.33	50.00	33.33
	Employers (n=61)	-	1.64	16.39	34.43	47.54
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	2.20	4.40	26.37	52.75	14.29
	Graduates (n=101)	0.99	7.92	22.77	40.59	27.72
	Lecturers (n=12)	8.33	25.00	50.00	16.67	-
	Employers (n=59)	6.78	16.95	30.51	37.29	8.47

Communicate with colleagues in English	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=89)	-	-	6.74	49.44	43.82
	Graduates (n=101)	-	-	2.97	24.75	72.28
	Lecturers (n=12)	-	-	-	41.67	58.33
	Employers (n=61)	-	-	3.28	34.43	62.30
	Competency (%)					
	Poor	Fair	Good	Very Good	Outstanding	
Students (n=91)	1.10	10.99	29.67	36.26	21.98	
Graduates (n=101)	0.99	8.91	20.79	42.57	26.73	
Lecturers (n=12)	8.33	8.33	66.67	16.67	-	
Employers (n=58)	-	27.59	39.66	24.14	8.62	
Do not shy away from using English when communicating	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=89)	-	-	6.74	50.56	42.70
	Graduates (n=101)	-	0.99	4.95	24.75	69.31
	Lecturers (n=12)	-	-	-	41.67	58.33
	Employers (n=60)	-	-	5.00	28.33	66.67
	Competency (%)					
	Poor	Fair	Good	Very Good	Outstanding	
Students (n=91)	1.10	14.29	29.67	36.26	18.68	
Graduates (n=101)	2.97	12.87	16.83	41.58	25.74	
Lecturers (n=12)	-	25.00	66.67	8.33	-	
Employers (n=59)	5.08	28.81	33.90	23.73	8.47	
Have no problem in speaking English to others	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=90)	-	1.11	6.67	50.00	42.22
	Graduates (n=101)	-	-	4.95	22.77	72.28
	Lecturers (n=12)	-	-	-	50.00	50.00
	Employers (n=60)	-	1.67	5.00	28.33	65.00
	Competency (%)					
	Poor	Fair	Good	Very Good	Outstanding	
Students (n=91)	2.20	12.09	28.57	32.97	24.18	
Graduates (n=101)	0.99	6.93	17.82	46.53	27.72	
Lecturers (n=12)	-	25.00	58.33	8.33	8.33	
Employers (n=59)	3.39	27.12	32.20	28.81	8.47	

Respondents indicated that each component of English language proficiency was important to extremely important. However, results regarding the English competency of newly employed consumer science graduates differed across the sample groups. Students and graduates rated themselves to be very good to outstanding in understanding written information in books and documents such as manuals, graphs and schedules written in English. Although 16.67% of lecturers indicated that they also think newly employed consumer science graduates are very good regarding the above, 83.34% of lecturers felt they were fair to good whereas 15.25% of employers indicated that they were fair, 33.90% good and 38.98% very good.

The same was found regarding competency to create documents such as letters, directions, reports, graphs and flow charts in English. Students and graduates rated themselves as very good to outstanding whereas lecturers mostly said they were fair to good and employers said mostly good to very good. Although results showed students give

themselves the highest score regarding the competency of the different skills, when asked to indicate their competency to communicate with colleagues in English, 29.67% of students rated this as good, 36.26% very good and 21.98% felt they were outstanding, whereas 20.79% of graduates said they were good, 42.57% chose very good and 26.73% said they were outstanding. In addition, the majority of the lecturers (66.67%) indicated that newly employed consumer science graduates were good at communicating with colleagues in English. No employers indicated that they were poor, and only 8.62% said that graduates' English was outstanding.

There was also a difference in whether or not respondents felt that employees shy away from using English when communicating. Although students and graduates indicated to be good to outstanding in not shying away when using English, the majority of lecturers and employers indicated this as fair to good. Lastly, students indicated that they were good to outstanding with having no problem in speaking English to others and graduates were even more confident with 74.25% indicating to be very good to outstanding with this skill. However, 83.33% of lecturers said that graduates were only fair to good and 30.51% of employers indicated that newly employed consumer science graduates were poor to fair, 32.20% indicated that they were good and 37.28% said they were very good to outstanding with speaking English.

4.4.1.3 *Information, communication and technology (ICT) skills*

Five components of ICT skills were identified, namely ICT knowledge in word processing (to use simple editing, tables, header and footer, drawing tools and to create/save documents); ICT knowledge in spreadsheets (to sort data, produce charts and graphs, input data in rows and columns, and display/hide formulae); ICT knowledge in handling presentations (create basic PowerPoint presentations, modify colours/texts/spaces, incorporate a graph/chart, arranging slides); ICT knowledge using the internet (use search engines to find information, download files from the internet, save text and images from web pages) and ICT knowledge in e-mails (send and receive, attach files to outgoing e-mails, open and save files attached to incoming e-mails, create a distribution list of contacts). Again, respondents had to indicate the importance of each component and the competency of newly employed consumer science graduates regarding the above (Table 4.9).

TABLE 4.9: IMPORTANCE AND COMPETENCY REGARDING COMPONENTS OF INFORMATION, COMMUNICATION AND TECHNOLOGY (ICT) SKILLS
(Table continues on next page)

	Importance (%)					
	Not very	Somewhat	Moderately	Important	Extremely	
ICT knowledge in word processing (to use simple Editing, tables, header and footer, drawing tools and to create / save documents)	Students (n=90)	-	-	11.11	43.33	45.56
	Graduates (n=101)	-	0.99	10.89	39.60	48.51
	Lecturers (n=12)	-	-	8.33	41.67	50.00
	Employers (n=61)	-	3.28	4.92	40.98	50.82
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	-	2.22	18.89	33.33	45.56
	Graduates (n=101)	-	7.92	10.89	42.57	38.61
	Lecturers (n=12)	-	16.67	58.33	8.33	16.67
	Employers (n=59)	-	15.25	22.03	49.15	13.56
ICT knowledge in spread-sheets (to sort data, produce charts and graphs, input data in rows and columns, and display / hide formulae)	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	1.10	6.59	52.75	39.56
	Graduates (n=101)	-	0.99	6.93	47.52	44.55
	Lecturers (n=12)	-	-	8.33	58.33	33.33
	Employers (n=60)	-	3.33	10.00	31.67	55.00
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	1.10	12.09	23.08	37.36	26.37
	Graduates (n=100)	6.00	14.00	29.00	26.00	25.00
Lecturers (n=12)	16.67	16.67	50.00	16.67	-	
Employers (n=59)	8.47	23.73	28.81	27.12	11.86	
ICT knowledge in handling presentations (create basic PowerPoint presentations, modify colours/texts/spaces, incorporate a graph / chart, arranging slides)	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=90)	-	-	3.33	45.56	51.11
	Graduates (n=101)	-	1.98	6.93	42.57	48.51
	Lecturers (n=12)	-	8.33	-	41.67	50.00
	Employers (n=61)	1.64	4.92	18.03	29.51	45.90
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	-	4.44	18.89	34.44	42.22
	Graduates (n=101)	-	4.95	16.83	45.54	32.67
Lecturers (n=12)	-	16.67	25.00	50.00	8.33	
Employers (n=58)	-	13.79	22.41	44.83	18.97	
ICT knowledge using the internet (use search engines to find information, download files from the internet, save text and images from web pages)	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	2.20	3.30	25.27	69.23
	Graduates (n=101)	-	0.99	7.92	32.67	58.42
	Lecturers (n=12)	-	-	-	33.33	66.67
	Employers (n=61)	-	-	6.56	27.87	65.57
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	-	-	13.33	37.78	48.89
	Graduates (n=101)	-	2.97	15.84	36.63	44.55
Lecturers (n=12)	-	-	33.33	50.00	16.67	
Employers (n=59)	-	3.39	20.34	50.85	25.42	

ICT knowledge in e-mails (send and receive, attach files to outgoing e-mails, open and save files attached to incoming e-mails, create a distribution list of contacts)	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	4.40	23.08	72.53
	Graduates (n=100)	-	-	-	26.00	74.00
	Lecturers (n=12)	-	-	-	33.33	66.67
	Employers (n=59)	-	-	5.08	10.17	84.75
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	-	9.89	32.97	57.14
	Graduates (n=101)	-	5.94	9.90	35.64	48.51
Lecturers (n=12)	-	-	41.67	41.67	16.67	
Employers (n=59)	-	5.08	23.73	45.76	25.42	

Similar to previous results, the majority of respondents for all the sample groups indicated that all five components of ICT skills are important to extremely important. However, results regarding competency differed across the four sample groups. For each component of ICT skills, the majority of students and graduates indicated their competency to be very good to outstanding. Lecturer and employer respondents had different opinions regarding newly employed consumer science graduates' competency. Lecturers (58.33%) mostly indicated that word processing was good, while the majority of employers felt it was good to very good. Spreadsheet skills were also found to be good by half of the lecturers (50.00%); however, employers' opinion was almost evenly distributed between fair (23.73%), good (28.81%) and very good (27.12%). The majority of lecturers and employers indicated that presentation skills were good to very good whereas internet and e-mail skills competency were rated good to very good by the majority of lecturers and good to outstanding by employers.

4.4.1.4 *Interpersonal skills*

Components of interpersonal skills were listening to other people's opinions; working cooperatively with others; communicating well with others; getting along easily with people and empathising with others. Results regarding the importance and competency of these five identified components of interpersonal skills are presented in Table 4.10.

TABLE 4.10: IMPORTANCE AND COMPETENCY REGARDING COMPONENTS OF INTERPERSONAL SKILLS

(Table continues on next page)

	Importance (%)					
	Not very	Somewhat	Moderately	Important	Extremely	
Listen to other people's opinions	Students (n=91)	-	-	-	29.67	70.33
	Graduates (n=101)	-	-	1.98	50.50	47.52
	Lecturers (n=12)	-	-	8.33	66.67	25.00
	Employers (n=60)	-	1.67	1.67	50.00	46.67
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	1.10	12.09	48.35	38.46
	Graduates (n=101)	-	0.99	18.81	55.45	24.75
	Lecturers (n=12)	-	8.33	41.67	50.00	-
	Employers (n=59)	-	8.47	25.42	54.24	11.86
Working cooperatively with others	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	1.10	21.98	76.92
	Graduates (n=100)	-	-	2.00	27.00	71.00
	Lecturers (n=12)	-	-	-	25.00	75.00
	Employers (n=60)	-	-	1.67	25.00	73.33
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	1.10	10.99	52.75	35.16
	Graduates (n=101)	-	0.99	14.85	52.48	31.68
Lecturers (n=12)	-	-	41.67	58.33	-	
Employers (n=59)	1.69	1.69	22.03	62.71	11.86	
Communicating well with others	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	1.10	20.88	78.02
	Graduates (n=101)	-	-	-	22.77	77.23
	Lecturers (n=12)	-	-	-	25.00	75.00
	Employers (n=59)	-	-	3.39	18.64	77.97
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	-	13.19	54.95	31.87
	Graduates (n=101)	-	0.99	17.82	56.44	24.75
Lecturers (n=12)	-	8.33	33.33	50.00	8.33	
Employers (n=59)	-	3.39	33.90	47.46	15.25	
Getting along easily with people	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	1.10	4.40	39.56	54.95
	Graduates (n=101)	-	-	7.92	43.56	48.51
	Lecturers (n=12)	-	-	-	58.33	41.67
	Employers (n=60)	-	5.00	10.00	38.33	46.67
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	1.10	1.10	16.48	42.86	38.46
	Graduates (n=100)	-	1.00	20.00	51.00	28.00
Lecturers (n=12)	-	8.33	50.00	41.67	-	
Employers (n=59)	-	3.39	32.20	45.76	18.64	

Empathising with others	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	2.20	17.58	40.66	39.56
	Graduates (n=100)	2.00	4.00	30.00	44.00	20.00
	Lecturers (n=12)	-	-	33.33	58.33	8.33
	Employers (n=61)	-	11.48	26.23	37.70	24.59
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	4.40	26.37	40.66	28.57
	Graduates (n=101)	0.99	4.95	32.67	41.58	19.80
Lecturers (n=12)	-	16.67	41.67	41.67	-	
Employers (n=59)	-	6.78	27.12	49.15	16.95	

All the components of interpersonal skills, except for empathising with others were indicated to be important to extremely important by the majority of the respondents. Although students generally felt that empathising with others is important to extremely important, the majority of graduates and lecturers said it was moderately important to important, while employers' opinions were primarily distributed between moderately (26.23%), important (37.70%) and extremely important (24.59%).

Results regarding the competency of newly employed consumer science graduates varied between the sample groups. The majority of students and graduates indicated to be very good to outstanding when listening to other people's opinions, working cooperatively with others, communicating with others and getting along easily with people. Lecturers and employers mainly indicated the competency regarding the above to be good to very good. Results regarding empathising with others showed that the majority of students indicated it to be very good to outstanding while graduates, lecturers and employers mainly said good to very good.

4.4.1.5 *Teamwork skills*

Respondents had to indicate how important different components of teamwork skills are in the work environment, as well as how competent newly employed consumer science graduates are regarding each component as seen in Table 4.11. These components were enjoying working as part of a team; enjoying the "give and take" policy of working in a group; willingness to follow the norms and standards of the group; placing the team goals ahead of own goals and cooperating with fellow workers.

TABLE 4.11: IMPORTANCE AND COMPETENCY REGARDING COMPONENTS OF TEAMWORK SKILLS
(Table continues on next page)

	Importance (%)					
	Not very	Somewhat	Moderately	Important	Extremely	
Enjoy working as part of a team	Students (n=91)	-	2.20	14.29	49.45	34.07
	Graduates (n=100)	-	1.00	10.00	48.00	41.00
	Lecturers (n=12)	-	8.33	-	75.00	16.67
	Employers (n=61)	-	-	9.84	47.54	42.62
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	1.10	7.69	32.97	49.45	8.79
	Graduates (n=101)	1.98	1.98	39.60	41.58	14.85
	Lecturers (n=12)	-	25.00	33.33	41.67	-
	Employers (n=59)	1.69	10.17	23.73	50.85	13.56
Enjoy the give and take policy of working in a group	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	2.20	18.68	53.85	25.27
	Graduates (n=101)	-	-	10.89	55.45	33.66
	Lecturers (n=12)	-	8.33	8.33	66.67	16.67
	Employers (n=61)	-	-	9.84	52.46	37.70
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	7.69	29.67	43.96	18.68
	Graduates (n=101)	0.99	4.95	32.67	44.55	16.83
Lecturers (n=12)	-	25.00	33.33	41.67	-	
Employers (n=58)	-	18.97	31.03	43.10	6.90	
Willing to follow the norms and standards of the group	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=90)	1.11	2.22	17.78	38.89	40.00
	Graduates (n=101)	0.99	4.95	14.85	48.51	30.69
	Lecturers (n=12)	-	16.67	25.00	50.00	8.33
	Employers (n=61)	1.64	4.92	4.92	52.46	36.07
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	1.10	4.40	25.27	42.86	26.37
	Graduates (n=101)	0.99	9.90	41.58	32.67	14.85
Lecturers (n=12)	-	25.00	50.00	25.00	-	
Employers (n=59)	1.69	15.25	30.51	45.76	6.78	
Places the team goals ahead of own goals	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=90)	-	3.33	14.44	38.89	43.33
	Graduates (n=101)	-	4.95	15.84	45.54	33.66
	Lecturers (n=12)	-	16.67	8.33	41.67	33.33
	Employers (n=61)	1.64	-	14.75	36.07	47.54
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	2.20	5.49	20.88	49.45	21.98
	Graduates (n=101)	-	7.92	45.54	31.68	14.85
Lecturers (n=12)	8.33	41.67	16.67	33.33	-	
Employers (n=59)	3.39	15.25	23.73	47.46	10.17	

Cooperate with fellow workers	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=89)	-	-	3.37	40.45	56.18
	Graduates (n=101)	-	-	0.99	45.54	53.47
	Lecturers (n=12)	-	-	8.33	50.00	41.67
	Employers (n=60)	-	-	3.33	43.33	53.33
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	-	4.44	22.22	42.22	31.11
	Graduates (n=101)	-	1.98	18.81	58.42	20.79
Lecturers (n=12)	-	8.33	50.00	41.67	-	
Employers (n=59)	1.69	13.56	20.34	44.07	20.34	

All the different components of teamwork skills were regarded as important to extremely important by the majority of the respondents, except for "willing to follow the norms and standards of the group" which was seen as moderately important to important by the majority of lecturer respondents. How competent newly employed consumer science graduates are regarding the different components of teamwork skills received mixed results from the different sample groups. Although the majority of the respondents rated "enjoying working as part of a team" good to very good, 25.00% of lecturer respondents indicated it to be fair. Similar results were seen regarding the component "enjoying the give and take policy of working in a group". The majority of respondents indicated good to very good but 25.00% of lecturers and 18.97% of employers indicated this to be fair. Willingness to follow the norms and standards of the group was also shown to be mainly good to very good; however, 26.37% of students felt they were outstanding, contradicting to 25.00% of lecturers who indicated them to be fair. This was similar to results regarding the competency of newly employed consumer science graduates to place the team goals ahead of their own goals. The majority of student respondents indicated this to be good to outstanding. Graduates and employers mainly said good to very good, but half (50.00%) of the lecturers said poor to fair and the other half said good to very good.

Students and graduates also indicated cooperation with fellow workers as very good to outstanding, while lecturers found this to be good to very good and employer's opinions were mainly distributed between good to outstanding. The overall trend of teamwork skills showed that students believed they were more competent regarding the different components than lecturers.

4.4.1.6 Leadership skills

Results regarding the importance of and competency in leadership skills are presented in Table 4.12. The ability to lead people; giving direction and guidance to others; willingness

to take ownership and responsibility for the job; ability to motivate others to work for a common goal and ability to delegate work to peers were the five components identified in leadership skills.

TABLE 4.12: IMPORTANCE AND COMPETENCY REGARDING COMPONENTS OF LEADERSHIP SKILLS
(Table continues on next page)

	Importance (%)					
	Not very	Somewhat	Moderately	Important	Extremely	
Have the ability to lead people	Students (n=91)	-	-	6.59	49.45	43.96
	Graduates (n=101)	-	2.97	22.77	45.54	28.71
	Lecturers (n=12)	-	8.33	33.33	50.00	8.33
	Employers (n=61)	-	3.28	24.59	39.34	32.79
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	3.30	23.08	48.35	25.27
	Graduates (n=101)	0.99	9.90	30.69	49.50	8.91
	Lecturers (n=12)	-	-	58.33	41.67	-
	Employers (n=59)	1.69	10.17	35.59	37.29	15.25
Give direction and guidance to others	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	5.49	41.76	52.75
	Graduates (n=101)	0.99	1.98	13.86	52.48	30.69
	Lecturers (n=12)	-	-	25.00	58.33	16.67
	Employers (n=61)	-	6.56	19.67	36.07	37.70
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	2.20	27.47	45.05	25.27
	Graduates (n=101)	-	6.93	28.71	55.45	8.91
Lecturers (n=12)	-	8.33	58.33	33.33	-	
Employers (n=59)	3.39	20.34	30.51	28.81	16.95	
Are willing to take ownership and responsibility for the job	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	4.40	27.47	68.13
	Graduates (n=101)	-	0.99	3.96	23.76	71.29
	Lecturers (n=12)	-	-	-	50.00	50.00
	Employers (n=61)	-	-	4.92	18.03	77.05
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	-	1.11	18.89	43.33	36.67
	Graduates (n=101)	0.99	2.97	15.84	40.59	39.60
Lecturers (n=12)	-	8.33	58.33	33.33	-	
Employers (n=59)	5.08	13.56	27.12	37.29	16.95	

Are able to motivate others to work for a common goal	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	5.49	38.46	56.04
	Graduates (n=101)	0.99	0.99	5.94	41.58	50.50
	Lecturers (n=12)	-	8.33	8.33	50.00	33.33
	Employers (n=60)	-	3.33	11.67	38.33	46.67
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	2.20	21.98	50.55	25.27
	Graduates (n=100)	-	5.00	33.00	43.00	19.00
Lecturers (n=12)	8.33	25.00	25.00	41.67	-	
Employers (n=58)	1.72	20.69	29.31	31.03	17.24	
Are able to delegate work to peers	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	6.59	41.76	51.65
	Graduates (n=101)	-	2.97	14.85	41.58	40.59
	Lecturers (n=12)	-	-	25.00	66.67	8.33
	Employers (n=61)	-	8.20	13.11	40.98	37.70
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	1.10	4.40	27.47	47.25	19.78
	Graduates (n=101)	0.99	9.90	33.66	40.59	14.85
Lecturers (n=12)	-	50.00	8.33	41.67	-	
Employers (n=59)	3.39	23.73	30.51	30.51	11.86	

The majority of students and graduates indicated that all five components of leadership skills are important to extremely important. However, there were differences in results from lecturers and employers. The majority of these two sample groups also indicated that it is important to extremely important to be willing to take ownership and responsibility for the job and to be able to motivate others to work for a common goal. Having the ability to lead people was rated as moderately important to important by the majority of lecturers and moderately important to extremely important by employers. Lecturers mainly felt that it is moderately important to important to give direction and guidance to others while 73.77% of employers indicated it to be important to extremely important. Lecturers primarily said that being able to delegate work to peers was moderately important to important and employers indicated it to be mostly important to extremely important. There were, however, some components of leadership skills which lecturers viewed as less important than employers.

Results regarding the competency of leadership skills also showed some difference between the sample groups. Student results were generally distributed between good to outstanding for all five components of leadership skills. The majority of graduates rated themselves as good to very good in four of the components of leadership skills and very good to outstanding concerning the willingness to take ownership and responsibility for the job.

In general, lecturers and employers rated newly employed consumer science graduate's competency to lead people as good to very good. Lecturers mainly said their competency to give direction and guidance to others is good to very good while employers generally indicated that they are fair to very good at this skill. The majority of these two sample groups also indicated that the competency to take ownership and responsibility for the job is good to very good. Competency to motivate others to work for a common goal and to delegate work to peers was rated as fair to very good.

4.4.1.7 Problem solving skills

Results regarding the importance and competency of problem solving skills were identified (Table 4.13). Again, different components of the skill were surveyed including the ability to identify problems; success in resolving conflicts with others; finding effective ways of solving problems; solving problems without getting assistance from others and gathering facts and information in finding the solution for problems.

TABLE 4.13: IMPORTANCE AND COMPETENCY REGARDING COMPONENTS OF PROBLEM SOLVING SKILLS
(Table continues on next page)

	Importance (%)					
	Not very	Somewhat	Moderately	Important	Extremely	
Are able to identify problems	Students (n=87)	-	1.15	2.30	43.68	52.87
	Graduates (n=101)	-	0.99	0.99	38.61	59.41
	Lecturers (n=12)	-	-	16.67	25.00	58.33
	Employers (n=61)	1.64	1.64	1.64	49.18	45.90
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	1.10	20.88	56.04	21.98
	Graduates (n=101)	0.99	0.99	24.75	56.44	16.83
	Lecturers (n=11)	-	9.09	54.55	36.36	-
	Employers (n=59)	3.39	8.47	32.20	40.68	15.25
Are successful in resolving conflicts with others	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	6.59	41.76	51.65
	Graduates (n=101)	0.99	-	8.91	41.58	48.51
	Lecturers (n=12)	-	-	8.33	33.33	58.33
	Employers (n=61)	-	1.64	9.84	59.02	29.51
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	1.10	8.79	25.27	49.45	15.38
	Graduates (n=101)	0.99	9.90	35.64	41.58	11.88
Lecturers (n=12)	-	41.67	41.67	16.67	-	
Employers (n=59)	1.69	13.56	42.37	35.59	6.78	

Find effective ways of solving problems	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=90)	-	-	2.22	35.56	62.22
	Graduates (n=101)	-	-	0.99	30.69	68.32
	Lecturers (n=12)	-	-	16.67	33.33	50.00
	Employers (n=61)	-	-	4.92	44.26	50.82
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	1.10	2.20	27.47	46.15	23.08
	Graduates (n=101)	-	3.96	29.70	52.48	13.86
Lecturers (n=12)	-	8.33	75.00	16.67	-	
Employers (n=58)	3.45	15.52	34.48	36.21	10.34	
Solve problems without getting assistance from others	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	1.10	2.20	21.98	46.15	28.57
	Graduates (n=101)	-	7.92	18.81	40.59	32.67
	Lecturers (n=12)	8.33	8.33	25.00	41.67	16.67
	Employers (n=60)	-	3.33	26.67	45.00	25.00
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	6.59	34.07	40.66	18.68
	Graduates (n=101)	1.98	7.92	41.58	37.62	10.89
Lecturers (n=12)	-	16.67	66.67	16.67	-	
Employers (n=59)	6.78	16.95	37.29	28.81	10.17	
Gather facts and information in finding the solution for problems	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=90)	-	-	3.33	51.11	45.56
	Graduates (n=99)	-	-	4.04	36.36	59.60
	Lecturers (n=12)	-	-	25.00	33.33	41.67
	Employers (n=60)	-	-	6.67	41.67	51.67
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	-	4.44	30.00	47.78	17.78
	Graduates (n=101)	-	5.94	28.71	47.52	17.82
Lecturers (n=12)	-	25.00	58.33	16.67	-	
Employers (n=59)	3.39	15.25	38.98	28.81	13.56	

All the components of problem solving skills were rated as important to extremely important by the majority of respondents, except for lecturers who indicated that solving problems without getting assistance from others is mostly moderately important to important. There were also 26.67% of employers who said the above is moderately important. Similarly, 25.00% of lecturers also felt that gathering facts and information in finding the solution for problems is moderately important.

Differences between sample groups were also found regarding results of problem solving skills competency. The majority of the graduate, lecturer and employer respondents indicated that newly employed consumer science graduates are good to very good at being able to identify problems, and students indicated them to be good to outstanding. Furthermore, most respondents indicated that graduates are good to very good at resolving conflicts with others, with the exception of lecturers (83.34%) who rated them fair to good.

Students mainly indicated that graduates are good to outstanding at finding effective ways of solving problems, while the majority of graduates and employers said good to very good and 75.00% of lecturers rated this as good. In addition, respondents generally said that newly employed consumer science graduates were good to very good at solving problems without getting assistance from others; however, 66.67% of lecturers indicated that they were good regarding the above and only 16.67% chose the option very good. Most respondents also said that graduates were good to very good when gathering facts and information in finding the solution for problems, however, only 16.67% of lecturers felt they were very good, 58.33% said they were good and 25.00% said they were fair regarding the above. It could therefore be concluded that lecturers rated newly employed consumer science graduates' problem solving skills competency lower, while students rated it highly.

4.4.1.8 *Adaptability skills*

Adaptability skills were divided into six components, namely the ability to identify alternative ways to achieve goals and get the job done; the ability to suggest alternative ways to achieve goals and get the job done; the ability to cope with uncertainty; preferring taking up new challenges and responsibilities; the ability to adapt to different situations and the ability to adapt to changes. Table 4.14 include results regarding the importance and competency of each component.

TABLE 4.14: IMPORTANCE AND COMPETENCY REGARDING COMPONENTS OF ADAPTABILITY SKILLS
(Table continues on next page)

Are able to identify alternative ways to achieve goals and get the job done	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	4.40	42.86	52.75
	Graduates (n=101)	-	-	8.91	54.46	36.63
	Lecturers (n=12)	-	8.33	8.33	50.00	33.33
	Employers (n=61)	-	1.64	8.20	55.74	34.43
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	-	31.87	50.55	17.58
	Graduates (n=101)	-	3.96	37.62	42.57	15.84
Lecturers (n=12)	-	-	66.67	33.33	-	
Employers (n=59)	1.69	13.56	25.42	47.46	11.86	

	Importance (%)					
	Not very	Somewhat	Moderately	Important	Extremely	
Are able to suggest alternative ways to achieve goals and get the job done	Students (n=91)	-	-	8.79	43.96	47.25
	Graduates (n=101)	-	-	7.92	53.47	38.61
	Lecturers (n=12)	-	8.33	8.33	50.00	33.33
	Employers (n=60)	-	3.33	15.00	48.33	33.33
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	-	2.22	37.78	46.67	13.33
	Graduates (n=100)	-	6.00	34.00	43.00	17.00
	Lecturers (n=12)	-	-	58.33	41.67	-
	Employers (n=59)	1.69	18.64	28.81	33.90	16.95
Are able to cope with uncertainty	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=89)	-	-	12.36	49.44	38.20
	Graduates (n=101)	0.99	1.98	10.89	40.59	45.54
	Lecturers (n=12)	-	-	16.67	41.67	41.67
	Employers (n=61)	-	6.56	11.48	47.54	34.43
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	3.30	18.68	35.16	35.16	7.69
	Graduates (n=101)	3.96	20.79	35.64	24.75	14.85
Lecturers (n=12)	8.33	41.67	25.00	25.00	-	
Employers (n=59)	8.47	22.03	33.90	28.81	6.78	
Prefer taking up new challenges and responsibilities	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	13.19	45.05	41.76
	Graduates (n=101)	-	-	7.92	46.53	45.54
	Lecturers (n=12)	-	8.33	16.67	66.67	8.33
	Employers (n=61)	-	4.92	9.84	45.90	39.34
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	1.10	4.40	35.16	39.56	19.78
	Graduates (n=101)	0.99	6.93	30.69	36.63	24.75
Lecturers (n=12)	8.33	25.00	33.33	33.33	-	
Employers (n=59)	6.78	13.56	25.42	40.68	13.56	
Are able to adapt to different situations	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=90)	-	1.11	3.33	41.11	54.44
	Graduates (n=101)	-	0.99	0.99	30.69	67.33
	Lecturers (n=12)	-	-	8.33	41.67	50.00
	Employers (n=61)	-	1.64	3.28	49.18	45.90
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	7.69	25.27	40.66	26.37
	Graduates (n=101)	0.99	6.93	26.73	41.58	23.76
Lecturers (n=12)	-	25.00	50.00	25.00	-	
Employers (n=59)	6.78	15.25	32.20	28.81	16.95	

Are able to adapt to changes	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	3.30	38.46	58.24
	Graduates (n=101)	-	0.99	-	28.71	70.30
	Lecturers (n=12)	-	-	8.33	50.00	41.67
	Employers (n=61)	-	-	6.56	40.98	52.46
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	2.20	8.79	23.08	41.76	24.18
	Graduates (n=100)	-	10.00	25.00	41.00	24.00
Lecturers (n=12)	-	16.67	50.00	33.33	-	
Employers (n=59)	6.78	23.73	27.12	28.81	13.56	

The majority of respondents indicated that all the components of adaptability skills are important to extremely important, with the exception of 66.67% of lecturers indicating that it is important to prefer taking up new challenges and responsibilities and only 8.33% indicating it to be extremely important.

There were some differences in results regarding competency between the different sample groups. Respondents mainly said that graduates' competency is good to very good regarding their ability to identify and suggest alternative ways to achieve goals and get the job done. Competency to cope with uncertainty was indicated to be good to very good by the majority of students and graduates. Lecturers and employers generally said it was fair to very good. Most students, graduates and employers said graduates' competency to prefer taking up new challenges and responsibilities is good to very good, while lecturers primarily indicated it to be fair to very good. A difference in opinion was also seen regarding the competency to adapt to different situations. Students and graduates mainly said it was good to outstanding, 25.00% of lecturers said it was fair, 50.00% good and 25.00% very good. Employers' answers were scattered, but the majority (61.01%) said it was good to very good. Students and graduates rated their ability to adapt to change good to outstanding but lecturers mainly said it was good to very good while 23.73% of employers felt it was fair, 27.12% good and 28.81% indicated it to be very good.

4.4.1.9 Risk taking skills

The five components included in risk taking skills were taking reasonable job-related risks; identifying potential negative outcomes when considering risky ventures; monitoring progress toward objectives in risky ventures; recognising alternate routes in meeting objectives; and accepting challenging assignments. How important respondents indicated

each component to be as well as the competency of newly employed consumer science graduates regarding each component can be seen in Table 4.15.

TABLE 4.15: IMPORTANCE AND COMPETENCY REGARDING COMPONENTS OF RISK TAKING SKILLS

(Table continues on next page)

	Importance (%)					
	Not very	Somewhat	Moderately	Important	Extremely	
Take reasonable job-related risks	Students (n=91)	-	-	20.88	47.25	31.87
	Graduates (n=101)	-	2.97	23.76	44.55	28.71
	Lecturers (n=12)	8.33	8.33	25.00	50.00	8.33
	Employers (n=61)	1.64	9.84	27.87	42.62	18.03
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	1.10	12.09	36.26	42.86	7.69
	Graduates (n=101)	-	9.90	46.53	35.64	7.92
	Lecturers (n=12)	-	25.00	41.67	25.00	8.33
	Employers (n=59)	3.39	18.64	38.98	30.51	8.47
Identify potential negative outcomes when considering risky ventures	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=90)	-	-	8.89	48.89	42.22
	Graduates (n=100)	-	1.00	11.00	48.00	40.00
	Lecturers (n=12)	-	8.33	25.00	41.67	25.00
	Employers (n=61)	-	8.20	14.75	39.34	37.70
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	4.40	35.16	47.25	13.19
	Graduates (n=101)	0.99	10.89	41.58	36.63	9.90
Lecturers (n=12)	-	33.33	41.67	16.67	8.33	
Employers (n=59)	1.69	20.34	42.37	27.12	8.47	
Monitor progress toward objectives in risky ventures	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=90)	-	2.22	12.22	50.00	35.56
	Graduates (n=100)	-	1.00	12.00	50.00	37.00
	Lecturers (n=12)	-	8.33	16.67	50.00	25.00
	Employers (n=61)	-	4.92	16.39	54.10	24.59
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	7.69	36.26	43.96	12.09
	Graduates (n=101)	0.99	13.86	41.58	36.63	6.93
Lecturers (n=12)	8.33	25.00	41.67	16.67	8.33	
Employers (n=59)	3.39	25.42	35.59	27.12	8.47	

Recognise alternate routes in meeting objectives	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=89)	-	-	12.36	50.56	37.08
	Graduates (n=101)	-	-	14.85	50.50	34.65
	Lecturers (n=12)	-	-	-	83.33	16.67
	Employers (n=61)	-	4.92	13.11	45.90	36.07
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	5.49	43.96	38.46	12.09
	Graduates (n=101)	-	10.89	42.57	37.62	8.91
Lecturers (n=12)	8.33	8.33	66.67	8.33	8.33	
Employers (n=59)	3.39	20.34	37.29	28.81	10.17	
Accept challenging assignments	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=90)	-	-	11.11	48.89	40.00
	Graduates (n=101)	-	-	9.90	42.57	47.52
	Lecturers (n=12)	-	8.33	16.67	58.33	16.67
	Employers (n=61)	-	3.28	14.75	42.62	39.34
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	8.79	27.47	49.45	14.29
	Graduates (n=101)	-	6.93	30.69	43.56	18.81
Lecturers (n=12)	8.33	8.33	66.67	8.33	8.33	
Employers (n=58)	3.45	22.41	32.76	31.03	10.34	

The majority of students and graduates said that taking reasonable job-related risks is moderately to extremely important, however lecturers and employers felt it was moderately important to important, with only 8.33% of lecturers and 18.03% of employers indicating it to be extremely important. Most respondents said that identifying potential negative outcomes when considering risky ventures is important to extremely important. However, there were some respondents who indicated it to be moderately important including 25.00% of lecturers. The components: to monitor progress toward objectives in risky ventures, recognise alternate routes in meeting objectives as well as accept challenging assignments were mostly said to be important to extremely important; however, there were some exceptions where the minority of all respondents said it was of lesser importance.

Results regarding competency differed among the groups. The majority of students and graduates scored their competency as good to very good regarding all the different components of risk taking skills with very few rated to be outstanding.

Lecturers generally said that newly employed consumer science graduates' competency to take reasonable job-related risks is good (41.67%), 25.00% said it was fair while 25.00% said it was very good. The majority of employers felt it was good to very good, although there were also 18.64% who said it was fair. Competency to identify potential negative outcomes when considering risky ventures and monitor progress toward objectives in risky

ventures was said to be fair to good by most lecturers and fair to very good by most employers. More than 86.00% of employers also indicated that competency to recognise alternate routes in meeting objectives and accept challenging assignments was fair to very good. Lecturers mostly said it was good (66.67%).

4.4.1.10 Creativity skills

Creativity skills consisted of four components namely providing novel solutions to problems; adapting to situations of change; initiating change to enhance productivity and being creative to make suggestions to improve the job. Results regarding importance and competency of creativity skills can be seen in Table 4.16.

TABLE 4.16: IMPORTANCE AND COMPETENCY REGARDING COMPONENTS OF CREATIVITY SKILLS
(Table continues on next page)

	Importance (%)					
	Not very	Somewhat	Moderately	Important	Extremely	
Provide novel solutions to problems	Students (n=91)	-	-	8.79	56.04	35.16
	Graduates (n=101)	-	1.98	11.88	59.41	26.73
	Lecturers (n=13)	7.69	7.69	7.69	53.85	23.08
	Employers (n=61)	-	-	24.59	47.54	27.87
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	1.10	4.40	40.66	45.05	8.79
	Graduates (n=101)	-	9.90	51.49	29.70	8.91
	Lecturers (n=13)	-	23.08	38.46	38.46	-
	Employers (n=59)	5.08	15.25	37.29	33.90	8.47
Adapt to situations of change	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	3.30	39.56	57.14
	Graduates (n=100)	-	-	4.00	43.00	53.00
	Lecturers (n=13)	-	7.69	7.69	46.15	38.46
	Employers (n=61)	-	-	4.92	54.10	40.98
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	1.11	10.00	22.22	42.22	24.44
	Graduates (n=101)	-	8.91	33.66	39.60	17.82
Lecturers (n=13)	-	15.38	46.15	30.77	7.69	
Employers (n=59)	5.08	11.86	42.37	28.81	11.86	

Initiate change to enhance productivity	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	4.40	45.05	50.55
	Graduates (n=100)	-	1.00	8.00	46.00	45.00
	Lecturers (n=13)	-	7.69	15.38	53.85	23.08
	Employers (n=61)	-	3.28	18.03	42.62	36.07
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	4.40	37.36	41.76	16.48
	Graduates (n=101)	0.99	7.92	41.58	37.62	11.88
Lecturers (n=13)	-	23.08	46.15	23.08	7.69	
Employers (n=59)	8.47	16.95	30.51	33.90	10.17	
Be creative to make suggestions to improve the job	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	3.30	35.16	61.54
	Graduates (n=101)	-	-	5.94	35.64	58.42
	Lecturers (n=12)	-	8.33	16.67	41.67	33.33
	Employers (n=61)	1.64	1.64	13.11	37.70	45.90
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	4.40	19.78	46.15	29.67
	Graduates (n=101)	0.99	5.94	33.66	43.56	15.84
Lecturers (n=13)	-	7.69	38.46	46.15	7.69	
Employers (n=59)	5.08	11.86	28.81	35.59	18.64	

All the different components of creativity skills were indicated to be important to extremely important by the majority of respondents. Results regarding competency of creativity skills were comparable between the sample groups and the majority of respondents indicated that newly employed consumer science graduates are good to very good regarding the different components. However, 23.08% of lecturers felt that graduates' competency to provide novel solutions to problems as well as initiate change to enhance productivity were fair. On the other hand, there were 24.44% of students who said that they were outstanding in adapting to situations of change and 29.67% said they were outstanding when making suggestions to improve the job.

4.4.1.11 *Personal organisation and time management skills*

Personal organisation and time management skills were divided into different components, namely usually setting priorities; allocating time efficiently; the ability to meet deadlines; the ability to arrive at work on time; using time and materials to the best advantage of the company; completing work in a thorough manner and the ability to meet identified standards when performing a job. Table 4.17 shows the results regarding the importance of each component along with the competency of newly employed consumer science graduates concerning the above.

TABLE 4.17: IMPORTANCE AND COMPETENCY REGARDING COMPONENTS OF PERSONAL ORGANISATION AND TIME MANAGEMENT SKILLS
(Table continues on next page)

Usually sets priorities	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	4.40	38.46	57.14
	Graduates (n=101)	-	0.99	5.94	37.62	55.45
	Lecturers (n=13)	-	-	7.69	30.77	61.54
	Employers (n=61)	-	-	4.92	62.30	32.79
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	1.10	1.10	13.19	49.45	35.16
	Graduates (n=101)	-	0.99	19.80	53.47	25.74
Lecturers (n=13)	-	15.38	53.85	30.77	-	
Employers (n=59)	1.69	16.95	35.59	33.90	11.86	
Allocates time efficiently	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	1.10	31.87	67.03
	Graduates (n=100)	-	1.00	3.00	19.00	77.00
	Lecturers (n=13)	-	-	-	30.77	69.23
	Employers (n=61)	-	1.64	3.28	37.70	57.38
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	2.20	4.40	20.88	38.46	34.07
	Graduates (n=101)	0.99	1.98	26.73	43.56	26.73
Lecturers (n=13)	-	46.15	30.77	23.08	-	
Employers (n=59)	8.47	15.25	23.73	38.98	13.56	
Able to meet deadlines	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	3.30	15.38	81.32
	Graduates (n=100)	-	1.00	1.00	11.00	87.00
	Lecturers (n=13)	-	-	-	23.08	76.92
	Employers (n=61)	-	3.28	-	13.11	83.61
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	-	-	5.56	43.33	51.11
	Graduates (n=101)	-	1.98	13.86	38.61	45.54
Lecturers (n=13)	-	7.69	61.54	15.38	15.38	
Employers (n=59)	5.08	13.56	27.12	37.29	16.95	
Able to arrive at work on time	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	1.10	21.98	76.92
	Graduates (n=101)	-	-	3.96	14.85	81.19
	Lecturers (n=13)	-	-	-	23.08	76.92
	Employers (n=61)	-	1.64	4.92	22.95	70.49
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	3.30	9.89	28.57	58.24
	Graduates (n=100)	-	2.00	11.00	33.00	54.00
Lecturers (n=13)	-	7.69	61.54	15.38	15.38	
Employers (n=59)	3.39	15.25	20.34	38.98	22.03	

Use time and materials to the best advantage of the company	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	3.30	27.47	69.23
	Graduates (n=101)	-	-	1.98	28.71	69.31
	Lecturers (n=13)	-	-	-	23.08	76.92
	Employers (n=59)	-	-	5.08	27.12	67.80
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=91)	-	2.20	8.79	52.75	36.26
	Graduates (n=100)	-	2.00	19.00	49.00	30.00
Lecturers (n=13)	-	23.08	46.15	30.77	-	
Employers (n=59)	3.39	13.56	22.03	44.07	16.95	
Complete work in a thorough manner	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	-	27.47	72.53
	Graduates (n=100)	-	-	1.00	18.00	81.00
	Lecturers (n=12)	-	-	-	33.33	66.67
	Employers (n=61)	-	-	1.64	22.95	75.41
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	-	1.11	12.22	50.00	36.67
	Graduates (n=101)	-	0.99	13.86	43.56	41.58
Lecturers (n=13)	-	23.08	38.46	38.46	-	
Employers (n=59)	1.69	11.86	27.12	40.68	18.64	
Able to meet identified standards when performing a job	Importance (%)					
		Not very	Somewhat	Moderately	Important	Extremely
	Students (n=91)	-	-	1.10	21.98	76.92
	Graduates (n=101)	-	-	1.98	15.84	82.18
	Lecturers (n=12)	-	-	-	33.33	66.67
	Employers (n=61)	-	-	1.64	26.23	72.13
	Competency (%)					
		Poor	Fair	Good	Very Good	Outstanding
	Students (n=90)	-	1.11	11.11	45.56	42.22
	Graduates (n=101)	-	0.99	14.85	49.50	34.65
Lecturers (n=13)	-	15.38	53.85	30.77	-	
Employers (n=59)	-	11.86	28.81	44.07	15.25	

Similar to previous results, the majority of respondents indicated that all the different components of time management skills are important to extremely important. Differences did, however, occur in results regarding competency between the sample groups. Student and graduate respondents mostly rated all components as very good to outstanding and good to outstanding regarding competency to allocate time efficiently. Lecturer and employer results fluctuated. The majority indicated that newly employed consumer science graduates are good to very good at setting priorities. Although 53.85% of lecturers and 62.71% of employers said they were good to very good at allocating time efficiently, 46.15% of lecturers rated this competency as fair. Furthermore, 61.54% of lecturers said their competency to meet deadlines is good and the majority of employers found it to be good to very good. Again 61.54% of lecturers found graduates' ability to arrive at work on

time good; employers rated this to be good to outstanding. However, there were employers (18.64%) who indicated this to be poor to fair.

Lecturers found their use of time and materials to the best advantage of the company and their competency to complete work in a thorough manner to be mainly fair to very good while the majority of employers found this to be good to very good. Lastly, the majority of both lecturers and employers found graduates' competency to meet identified standards when performing a job good to very good.

4.4.1.12 Summary of the importance of and competency in components of different employability skills

As seen above, the 11 identified skills were divided into different components and results showed that all the different components were important in the work environment. Although this could have been expected since literature indicated the importance of employability skills, this study is novel as it examined the employability skills of South African consumer science graduates, pointing out the importance of consumer science students attaining these skills before they graduate. However, respondents rated the competency of newly employed consumer science graduates differently among the sample groups. In most instances, students rated their competency to be very good to outstanding followed by graduates who also felt they are mostly competent regarding the different skills. There were exceptions, for example, English language proficiency, where graduates rated their competency higher than students did.

The fact that students rated their own competencies higher was expected and is supported by Kajander-Unkuri *et al.* (2016:308) and Lawson *et al.* (2012:7) who also found that students overestimate their own competency levels. Literature comparing self-assessment with assessment by others is limited (Kajander-Unkuri *et al.* 2016:308; Yan & Brown 2017:3), however the purpose of this study was not to investigate students' ability to self-assess, but rather determine differences between their perceptions about the importance of skills in contrast to students' skills competencies in order to determine gaps in skill attainment. When students overestimate their academic abilities, it often makes it difficult for researchers who aim to suggest strategies to enhance these abilities (Coetzee-Van Rooy 2011:173). However, in this study, students were not the only sample group, and since a mismatch was identified between how competent students think they are versus how they are perceived by employers, it highlighted that skills gaps do occur in consumer science graduates that should be addressed

In most instances results showed that lecturers rated their graduates' competency noticeably lower than students and graduates. Although employers also gave lower competency ratings than students and graduates, results primarily showed that they gave higher ratings than lecturers. It is important to note that employers work with graduates who have been placed in certain positions and probably went through recruiting processes where they competed against other applicants for the job, thus stood out to be the best candidate for the position and were therefore appointed. Lecturers, on the other hand, interact with students, including those who perform well and those with very low grades, which might influence their opinion regarding graduate competency. However, the fact that lecturers gave the lowest competency ratings is alarming, given the fact that they are the ones responsible for teaching these employability skills at tertiary institutions. In addition, the ratings given to each component of the different employability skills were added together to get a better idea of the importance of and competency in each skill. The results will be discussed in 4.4.3.

4.4.2 Construct validity and reliability

The small sample size relative to the large number of items (266 respondents across all four groups together, to 60 questionnaire items) precluded the use of a confirmatory factor analysis to evaluate the construct validity of the questionnaire (cf. 3.4.1), even more so when considering that 44 respondents did not answer certain items, giving a reduced usable sample of 222 respondents. Even a maximum likelihood factor analysis produced Heywood cases, again indicating that the sample size was too small for the analysis. Accordingly, a principal component analysis was performed, specifying the extraction of 11 components. This analysis was run separately on the 60 Importance items and the 60 Competence items (these items consisted of the different components of each skill as seen in 4.4.1). The Kaiser's Measure of Sampling Adequacy (MSA) was 0.85 for the importance items and 0.95 for the competence items, indicating good model appropriateness. The rotated factor matrixes are shown in Table 4.18 and Table 4.19, with item loadings $\geq |.40|$ highlighted (Raubenheimer 2004:62). The principle component analysis of the importance of employability skills are seen in Table 4.18.

TABLE 4.18: A PRINCIPAL COMPONENT ANALYSIS - IMPORTANCE OF EMPLOYABILITY SKILLS

(Table continues on next page)

SKILL		FACTOR										
Item	1	2	3	4	5	6	7	8	9	10	11	
Communication	Speak	0.00	0.60	0.01	0.18	0.14	0.10	0.25	-0.08	0.29	-0.24	-0.06
	Write	0.05	0.63	0.00	0.07	-0.09	0.05	0.32	-0.07	0.08	-0.11	0.16
	Listen	0.05	0.62	0.23	0.08	-0.18	0.02	-0.02	0.06	0.43	-0.01	-0.11
	Understand	0.18	0.56	0.12	0.00	0.05	0.10	-0.01	0.09	0.11	0.03	0.10
	1 to 1	0.03	0.61	-0.02	0.12	0.22	-0.07	0.04	0.26	-0.05	0.11	0.37
	Group	0.11	0.65	-0.09	0.08	0.29	-0.16	0.11	0.08	-0.09	0.13	0.20
	Presentations	0.16	0.62	-0.03	0.05	0.21	-0.10	0.23	0.02	-0.10	0.30	0.07
English	Persuade	0.26	0.51	0.03	0.14	0.28	0.12	0.01	0.01	-0.10	0.16	-0.11
	Understand	0.17	0.26	0.18	0.06	0.42	0.19	0.13	-0.14	0.08	0.19	-0.04
	Writing	0.19	0.21	0.05	0.15	0.58	0.12	0.18	-0.22	0.06	0.18	-0.11
	Communicate	0.06	0.04	0.07	-0.03	0.82	0.10	0.08	0.06	0.12	0.01	0.03
	Confidence	0.06	0.10	0.15	0.05	0.83	0.08	0.06	0.13	0.05	0.01	0.10
ICT	Proficiently	0.09	0.12	0.12	0.04	0.81	0.09	0.08	0.15	0.06	-0.02	0.07
	Word Proc	0.01	0.20	0.06	0.08	0.15	0.12	0.78	-0.02	0.10	0.13	0.02
	Spreadsheets	0.13	0.09	0.26	0.03	0.13	0.23	0.59	0.15	-0.11	-0.18	0.04
	Presentations	0.11	0.29	0.05	0.11	0.08	0.05	0.64	0.07	-0.13	0.17	0.17
	Internet	0.12	0.08	0.04	0.02	0.03	-0.04	0.74	0.10	0.18	0.08	0.05
Interpersonal	E-mails	0.10	-0.01	0.17	0.09	0.16	0.05	0.52	0.13	0.36	-0.23	-0.13
	Listen	0.30	0.24	0.14	0.09	-0.01	0.09	0.13	-0.01	0.44	0.19	0.33
	Cooperate	0.07	0.11	0.07	0.09	0.16	0.22	0.04	0.16	0.70	0.02	0.18
	Communicate	0.15	0.05	0.09	0.04	0.21	0.07	0.15	0.17	0.68	0.19	0.14
	Get along	0.14	0.13	0.09	0.12	0.07	0.17	0.10	0.10	0.28	0.01	0.71
Teamwork	Empathise	0.14	0.18	0.05	0.13	-0.02	0.21	0.09	-0.04	0.18	-0.01	0.70
	Team Player	0.18	-0.02	-0.03	0.16	0.16	0.67	-0.01	0.07	-0.01	-0.06	0.17
	Give and take	0.15	0.08	0.04	0.08	0.07	0.76	0.10	0.10	0.01	0.12	0.20
	Norms	0.10	0.02	0.07	0.11	0.05	0.76	0.14	-0.05	-0.01	-0.01	0.05
	Goals	0.15	0.00	0.03	0.09	0.01	0.72	-0.01	0.08	0.17	0.08	-0.07
Leadership	Cooperate	0.19	0.00	0.11	0.07	0.20	0.59	0.07	0.04	0.22	0.22	0.04
	Leadership	0.20	0.12	0.02	0.79	-0.03	0.02	0.10	-0.13	-0.04	0.03	0.10
	Direction	0.12	0.15	0.06	0.84	-0.06	0.05	0.12	-0.07	0.00	0.07	0.09
	Ownership	0.10	0.02	0.09	0.52	0.24	0.19	-0.01	0.21	0.06	-0.02	-0.10
	Motivation	0.11	0.04	0.02	0.78	0.07	0.10	0.01	0.05	0.06	0.14	0.14
Delegation	0.23	0.12	-0.06	0.67	0.06	0.25	0.02	-0.04	0.13	0.18	0.08	

Problem Solving	Identify	0.26	0.03	0.25	0.27	0.06	0.05	0.05	0.18	0.21	0.52	-0.01
	Conflict	0.12	0.18	0.12	0.30	-0.07	0.18	-0.08	0.09	0.15	0.44	0.15
	Effectively	0.25	0.11	0.15	0.23	0.07	0.25	0.11	0.23	0.05	0.53	-0.04
	Independent	0.22	0.10	0.12	0.19	0.07	0.04	-0.02	-0.06	-0.25	0.33	0.47
	Gather info	0.35	-0.01	0.25	0.07	0.22	0.04	0.13	0.17	0.05	0.54	0.13
Adaptability	Identify alt	0.54	-0.07	0.13	0.31	0.07	0.16	0.22	0.18	0.08	0.04	0.13
	Suggest alt	0.52	-0.03	0.12	0.32	0.10	0.17	0.20	0.32	0.13	0.14	0.17
	Cope	0.30	0.20	0.11	0.01	0.16	0.14	0.15	0.40	0.09	0.11	-0.06
	Challenges	0.52	0.04	0.04	0.12	0.11	0.12	0.10	0.35	0.22	0.23	-0.02
	Situations	0.40	-0.02	0.15	-0.06	0.12	0.04	0.19	0.61	0.30	0.15	0.03
	Changes	0.34	0.07	0.17	-0.08	0.00	0.07	0.13	0.68	0.16	0.15	0.04
Risk Taking	Reasonable	0.68	0.21	0.13	-0.01	-0.04	0.19	0.05	-0.12	0.04	0.17	0.09
	Identify	0.68	0.19	0.16	0.00	0.06	0.13	-0.01	0.04	0.11	0.37	-0.03
	Monitor	0.68	0.17	0.11	0.07	0.07	0.18	0.05	0.01	0.07	0.29	-0.01
	Alternate	0.72	0.14	-0.01	0.05	0.10	0.15	0.06	-0.07	-0.01	0.09	0.06
	Accept	0.61	-0.03	0.22	0.12	0.14	0.16	0.03	0.04	0.05	0.05	0.09
Creativity	Solutions	0.67	0.13	0.19	0.18	0.07	0.04	0.06	0.22	0.11	-0.05	0.06
	Adapt	0.56	0.11	0.13	0.03	0.07	0.10	-0.01	0.33	0.07	0.01	0.13
	Initiate	0.71	0.07	0.09	0.29	0.02	-0.05	0.04	0.20	-0.06	-0.11	0.01
	Improve	0.57	0.00	0.24	0.24	0.07	0.05	0.06	0.32	-0.03	-0.01	0.12
Time management	Priorities	0.18	0.22	0.44	0.10	0.01	0.10	0.03	0.36	-0.01	0.16	-0.06
	Efficient	0.13	0.26	0.67	0.02	0.04	0.08	-0.01	0.29	0.07	0.09	-0.11
	Deadlines	0.17	-0.09	0.76	0.06	0.01	0.01	0.07	0.19	-0.05	0.02	-0.05
	Timeous	0.04	-0.01	0.64	0.17	0.08	-0.03	-0.04	-0.09	0.07	-0.12	0.24
	Stewardship	0.20	0.12	0.67	-0.02	0.11	0.15	0.12	0.01	0.02	0.14	0.12
	Complete	0.25	-0.05	0.61	-0.04	0.24	0.01	0.26	-0.01	0.19	0.20	0.10
	Standards	0.22	-0.04	0.64	-0.08	0.18	0.01	0.15	0.01	0.15	0.21	0.02

Table 4.19 shows the principle component analysis of the competency of employability skills.

TABLE 4.19: A PRINCIPAL COMPONENT ANALYSIS - COMPETENCY OF EMPLOYABILITY SKILLS
(Table continues on next page)

SKILL		FACTOR										
	Item	1	2	3	4	5	6	7	8	9	10	11
Communication	Speak	0.18	0.10	0.54	0.05	0.40	0.04	0.14	0.22	0.04	0.25	0.15
	Write	0.14	0.23	0.54	0.16	0.33	0.16	0.19	0.15	-0.01	0.08	0.31
	Listen	0.28	0.23	0.43	0.28	0.19	0.13	0.08	0.06	0.16	0.04	0.48
	Understand	0.23	0.17	0.58	0.16	0.07	0.11	0.05	0.02	0.19	0.12	0.33
	1 to 1	0.20	0.15	0.62	0.23	0.16	0.05	-0.04	0.13	0.23	0.20	0.11
	Group	0.13	0.07	0.77	0.03	0.17	0.21	0.10	0.10	0.14	0.20	-0.15

SKILL		FACTOR										
	Presentations	0.10	0.13	0.70	0.18	0.14	0.10	0.22	0.14	0.11	0.19	-0.07
	Persuade	0.23	0.20	0.62	0.26	0.20	0.09	0.09	0.09	0.07	0.17	-0.06
English	Understand	0.16	0.21	0.34	0.35	0.52	0.10	0.21	0.14	0.01	-0.04	0.22
	Writing	0.10	0.18	0.33	0.38	0.59	0.17	0.15	0.05	0.01	0.06	0.01
	Communicate	0.10	0.12	0.18	0.15	0.88	0.10	0.06	0.06	0.16	0.08	0.03
	Confidence	0.07	0.10	0.16	0.11	0.88	0.07	0.09	0.07	0.15	0.14	-0.02
	Proficiently	0.11	0.13	0.14	0.22	0.87	0.08	0.04	0.12	0.11	0.08	0.02
ICT	Word Proc	0.17	0.26	0.15	0.73	0.24	0.13	0.12	0.05	0.11	0.04	0.03
	Spreadsheets	0.09	0.15	0.17	0.71	0.20	0.23	0.24	0.00	0.04	-0.02	-0.01
	Presentations	0.14	0.16	0.23	0.72	0.05	0.12	0.07	0.10	0.15	0.20	0.03
	Internet	0.18	0.08	0.09	0.79	0.19	0.03	0.02	0.19	0.14	0.16	0.09
	E-mails	0.15	0.16	0.11	0.75	0.18	0.07	0.08	0.16	0.19	0.19	0.01
Interpersonal	Listen	0.16	0.27	0.16	0.23	0.10	0.22	0.22	0.00	0.63	0.07	0.28
	Cooperate	0.16	0.24	0.10	0.10	0.17	0.33	0.09	0.20	0.65	0.12	0.08
	Communicate	0.21	0.14	0.28	0.17	0.22	0.10	0.02	0.14	0.64	0.28	0.02
	Get along	0.10	0.11	0.14	0.20	0.20	0.26	0.02	0.15	0.72	0.16	-0.06
	Empathise	0.18	0.08	0.08	0.07	-0.02	0.30	0.20	0.01	0.71	0.01	-0.06
Teamwork	Team Player	0.11	0.05	0.17	0.08	0.09	0.70	0.18	0.16	0.27	-0.01	-0.02
	Give and take	0.15	0.08	0.12	0.10	0.19	0.77	0.17	0.17	0.22	0.06	0.02
	Norms	0.21	0.15	0.10	0.07	0.04	0.77	0.11	0.09	0.14	0.15	0.00
	Goals	0.29	0.12	0.09	0.19	0.03	0.71	-0.02	0.09	0.15	0.24	0.06
	Cooperate	0.25	0.16	0.09	0.18	0.14	0.60	0.02	0.27	0.30	0.17	0.09
Leadership	Leadership	0.15	0.16	0.26	0.12	0.10	0.16	0.24	0.22	0.14	0.66	-0.06
	Direction	0.24	0.16	0.27	0.15	0.15	0.17	0.21	0.15	0.07	0.69	0.06
	Ownership	0.31	0.36	0.18	0.17	0.25	0.13	0.12	0.19	0.05	0.55	0.20
	Motivation	0.24	0.22	0.21	0.13	0.07	0.20	0.20	0.16	0.30	0.59	0.01
	Delegation	0.22	0.18	0.27	0.21	0.07	0.09	0.18	0.07	0.13	0.63	-0.04
Problem Solving	Identify	0.61	0.23	0.15	0.15	0.17	0.12	0.24	0.10	0.12	0.13	0.34
	Conflict	0.46	0.22	0.16	0.09	0.06	0.27	0.20	0.08	0.19	0.29	0.22
	Effectively	0.62	0.22	0.19	0.16	0.23	0.28	0.11	0.05	0.08	0.25	0.21
	Independent	0.61	0.18	0.12	0.07	0.28	0.25	0.03	0.16	0.04	0.22	0.14
	Gather info	0.60	0.30	0.18	0.18	0.16	0.29	0.11	0.21	0.10	0.15	0.15
Adaptability	Identify alt	0.64	0.19	0.15	0.13	0.03	0.13	0.22	0.33	0.14	0.08	0.10
	Suggest alt	0.65	0.22	0.14	0.13	0.05	0.13	0.16	0.36	0.11	0.08	0.11
	Cope	0.16	0.09	0.16	0.07	0.09	0.26	0.25	0.65	0.04	0.23	0.17
	Challenges	0.36	0.22	0.20	0.18	0.12	0.13	0.19	0.65	0.08	0.15	0.03
	Situations	0.29	0.27	0.16	0.16	0.12	0.22	0.22	0.69	0.14	0.13	-0.03
	Changes	0.30	0.24	0.13	0.14	0.16	0.21	0.17	0.69	0.23	0.11	-0.09
Risk Taking	Reasonable	0.20	0.10	0.12	0.11	0.08	0.19	0.62	0.31	0.12	0.19	-0.01
	Identify	0.26	0.24	0.16	0.16	0.11	0.01	0.69	0.12	0.12	0.16	0.14
	Monitor	0.31	0.19	0.10	0.10	0.11	0.16	0.74	0.17	0.14	0.20	-0.01
	Alternate	0.37	0.12	0.11	0.15	0.13	0.13	0.62	0.24	0.10	0.18	0.00
	Accept	0.31	0.22	0.14	0.19	0.13	0.19	0.46	0.43	0.07	0.23	0.01

Creativity	Solutions	0.63	0.13	0.23	0.08	0.04	0.12	0.33	0.13	0.21	0.16	-0.08
	Adapt	0.49	0.20	0.13	0.17	0.06	0.27	0.29	0.42	0.19	0.08	-0.25
	Initiate	0.62	0.15	0.19	0.20	0.08	0.13	0.27	0.15	0.20	0.14	-0.31
	Improve	0.69	0.25	0.14	0.19	0.00	0.15	0.23	0.07	0.16	0.14	-0.21
Time management	Priorities	0.16	0.64	0.13	0.15	0.08	0.14	0.30	-0.06	0.10	0.21	0.12
	Efficient	0.10	0.76	0.17	0.11	0.10	0.08	0.23	-0.02	0.07	0.13	0.02
	Deadlines	0.19	0.82	0.11	0.19	0.15	0.06	0.06	0.10	0.06	0.19	-0.03
	Timeous	0.06	0.77	0.00	0.07	0.07	0.20	0.02	0.14	0.14	0.06	0.01
	Stewardship	0.29	0.71	0.22	0.16	0.06	0.07	0.07	0.25	0.16	0.07	-0.08
	Complete	0.26	0.76	0.12	0.13	0.17	0.01	-0.01	0.22	0.13	0.06	0.09
	Standards	0.28	0.70	0.16	0.17	0.08	0.06	0.16	0.22	0.09	0.08	0.11

From these tables, it can be clearly seen that, by and large, the items from each subscale loaded nicely on a single common factor. The exceptions to this were: Firstly, a small handful of items which either loaded on more than one factor, or did not significantly load on any factor. Secondly, the eleventh factor was not clearly defined. Thirdly, there were some differences in the structures obtained from the Importance and the Competence item sets. For Competence, the first two Adaptability items (ability to identify- and ability to suggest alternative ways to achieve goals cf. 4.4.1.8) loaded on the Problem solving factor (which, upon examination of the exact item wording, was quite understandable). Also, the Creativity items also loaded on the Problem solving factor, which was again, in retrospect, a very understandable phenomenon (Creativity items included providing solutions to problems, adapting to change, initiating change and being creative to make suggestions to improve the job cf. 4.4.1.10). However, when looking at the Importance item set, Problem Solving stood apart, and Adaptability, Risk Taking, and Creativity all loaded on a single factor (which was also, in retrospect, understandable since all three of these item sets are related to the ability to recognise and suggest alternative ways to meet objectives and adapt to change. During focus group discussions, (cf. 5.3.10), it was also found that these skills are interrelated and taking risks requires adaptability skills, while both involve creativity).

These issues with the items would be better resolved with a factor analysis, rather than the component analysis, but this would require a larger sample, as already indicated, than was obtained in this study. Figure 4.1 shows that, according to the eigenvalues > 1 criterion, between ten and fifteen factors should be retained, although a preliminary analysis of the scree plot indicates far fewer factors. A precise determination of the number of factors required will be possible in a further study with a larger sample.

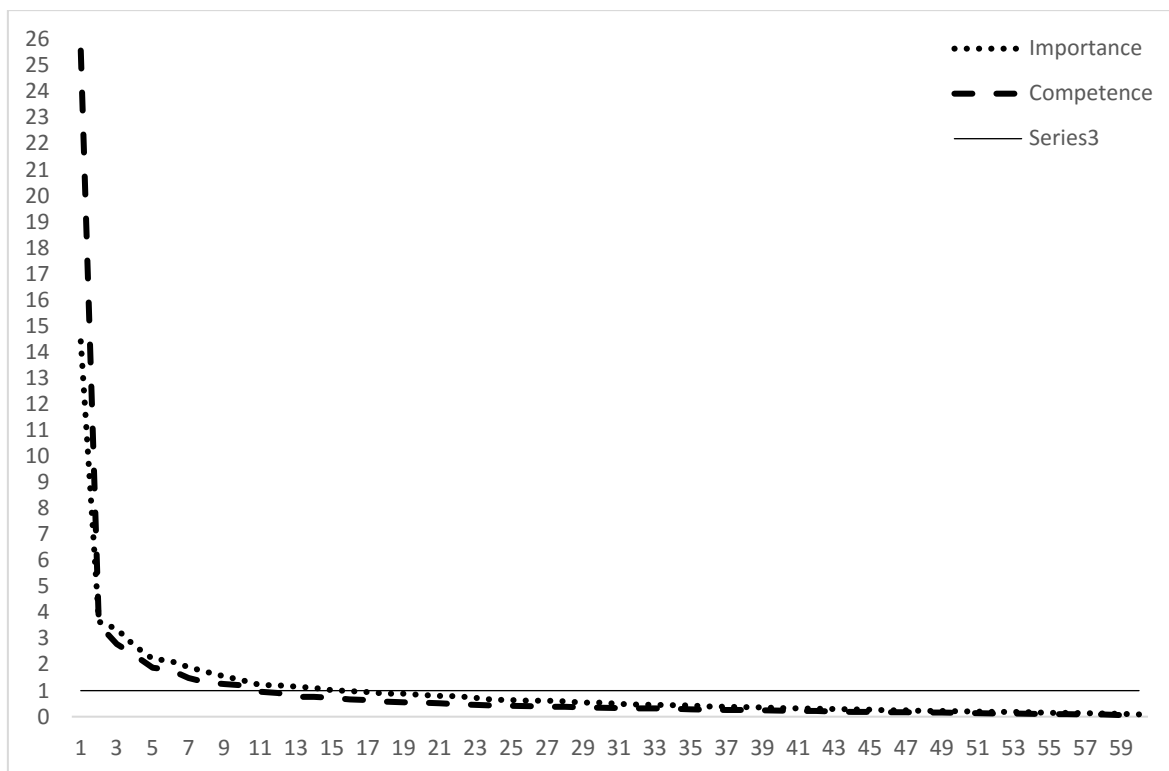


FIGURE 4.1: SCREE PLOTS FOR IMPORTANCE AND COMPETENCE ITEM SETS

The above considerations provided tentative, but not perfect, confirmation of the general construct validity of the scale. Given the small sample size, better confirmation cannot be obtained easily, and it was decided that the underlying factor structure of the items provided sufficient confirmation of the constructs measured to continue with the subscales as originally defined, and that perhaps a follow-up study with a larger sample could examine more definitively the factor structure of the scale.

The intercorrelations between the factors are shown in Tables 4.20 and 4.21. All the intercorrelations were significant, although this is not unexpected. The intercorrelations were not so large as to be of undue concern (ranging between 0.20 and 0.67 for the Importance subscales, and 0.37 and 0.75 for the Competence subscales). Certainly all the values were well below the value of 0.90 which would indicate a problem of multicollinearity.

TABLE 4.20: FACTOR INTERCORRELATIONS (IMPORTANCE)

	English	ICT	Interpersonal	Teamwork	Leadership	Problem solving	Adaptability	Risk taking	Creativity	Time management
Communication	0.40	0.38	0.39	0.20	0.28	0.37	0.32	0.33	0.31	0.21
English		0.37	0.28	0.31	0.23	0.31	0.33	0.29	0.26	0.34
ICT			0.33	0.24	0.20	0.26	0.34	0.21	0.21	0.31
Interpersonal				0.42	0.31	0.44	0.44	0.36	0.35	0.38
Teamwork					0.31	0.40	0.38	0.36	0.30	0.24
Leadership						0.43	0.41	0.41	0.43	0.24
Problem solving							0.53	0.52	0.50	0.46
Adaptability								0.62	0.67	0.50
Risk taking									0.67	0.43
Creativity										0.41

TABLE 4.21: FACTOR INTERCORRELATIONS (COMPETENCE)

	English	ICT	Interpersonal	Teamwork	Leadership	Problem solving	Adaptability	Risk taking	Creativity	Time management
Communication	0.59	0.56	0.56	0.51	0.69	0.65	0.60	0.57	0.57	0.55
English		0.53	0.42	0.39	0.46	0.48	0.45	0.42	0.37	0.41
ICT			0.51	0.44	0.52	0.53	0.47	0.48	0.47	0.50
Interpersonal				0.65	0.58	0.58	0.54	0.50	0.57	0.50
Teamwork					0.55	0.60	0.59	0.50	0.56	0.42
Leadership						0.69	0.65	0.67	0.66	0.59
Problem solving							0.71	0.66	0.72	0.61
Adaptability								0.73	0.75	0.58
Risk taking									0.73	0.55
Creativity										0.56

The reliabilities of the various subscales were also determined through the calculation of standardised Cronbach's alpha coefficients for each subscale in the Importance and Competence item sets separately (cf. 3.4.2). Cronbach's alpha ranges between 0 and 1. Alpha values above 0.70 are noted to indicate reliability (Field 2009:675). The closer Cronbach's alpha is to 1.0, the higher the reliability of the different items in the survey. Cronbach's alpha for the Likert-type scales of the questionnaire supported the reliability of the measuring instrument for this study (Table 4.22). The complete set of 22 tables for

each subscale are summarised into this table. The table also shows the range of item-to-total correlations, and the range of resultant alpha coefficients on the removal of any one item. The latter shows that in almost all cases, items contributed to the overall reliability of each subscale, with the single notable exception being the Ownership item on the Importance of Leadership subscale, which indicated a still-insubstantial increase in alpha of 0.028 if it was removed (on the Competence for Leadership subscale, though, this item contributed to the total reliability). Item-to-total correlations were also quite good, with the second-smallest correlation being 0.43, and the smallest correlation of 0.37 (for the Independent Problem Solving item on the Importance of Problem Solving subscale) still being not much lower than 0.40.

TABLE 4.22: CRONBACH'S ALPHA COEFFICIENT ON STANDARDISED SCORES

EMPLOYABILITY SKILLS	Items	Importance			Competency		
		α	r-total	α -deleted	α	r-total	α -deleted
Communication	8	0.82	0.43 – 0.62	-0.03 – -0.01	0.91	0.67 – 0.72	-0.01 – -0.01
English	5	0.83	0.48 – 0.71	-0.06 – 0.01	0.92	0.69 – 0.88	-0.03 – 0.00
ICT	5	0.79	0.50 – 0.64	-0.07 – -0.02	0.90	0.68 – 0.79	-0.03 – -0.01
Interpersonal	5	0.78	0.48 – 0.62	-0.06 – -0.02	0.88	0.63 – 0.76	-0.03 – 0.00
Teamwork	5	0.83	0.58 – 0.71	-0.06 – -0.02	0.90	0.68 – 0.80	-0.03 – -0.01
Leadership	5	0.86	0.44 – 0.79	-0.06 – 0.03	0.90	0.72 – 0.83	-0.04 – -0.01
Problem solving	5	0.76	0.37 – 0.64	-0.08 – 0.01	0.90	0.67 – 0.81	-0.04 – -0.01
Adaptability	6	0.86	0.53 – 0.72	-0.04 – 0.00	0.92	0.70 – 0.83	-0.02 – -0.01
Risk taking	5	0.86	0.59 – 0.76	-0.05 – -0.01	0.90	0.72 – 0.81	-0.04 – -0.01
Creativity	4	0.82	0.56 – 0.70	-0.07 – 0.00	0.89	0.73 – 0.79	-0.04 – -0.02
Time management	7	0.84	0.46 – 0.65	-0.03 – 0.00	0.92	0.68 – 0.85	-0.02 – 0.00

4.4.3 Results of total score for each skill

The ratings respondents gave to the different components of each skill were grouped together and a mean score out of 100 was calculated for each skill according to each sample group. A mean subtotal for each skill including all respondents (from all four sample groups) was also calculated. The higher the score the more important respondents indicated the skill to be or the more competent they viewed newly employed consumer science graduates to be regarding the specific skill. Table 4.23 shows a summary of the scores for the various subscales. From this it may be seen that none of the subscale distributions showed

excessive skewness or kurtosis, and the standard deviations of all the subscales were reasonably homogenous, and, as mentioned before, there was also no evidence of multicollinearity between the various subscales.

TABLE 4.23 DESCRIPTIVE SUMMARY OF SUBSCALE SCORES

Subscale	Item set	N	Percentiles (0–25–50–75–100)	Mean (95% CL)	SD	Skewness	Kurtosis
Communication skills	Importance	265	46.9–75.0–84.4–90.6–100.0	84.0 (82.7–85.4)	11.0	-0.39	-0.22
	Competence	263	9.4–56.3–65.6–75.0–100.0	65.5 (63.5–67.5)	16.6	-0.24	0.27
English language proficiency	Importance	264	45.0–80.0–90.0–100.0–100.0	86.9 (85.3–88.4)	12.4	-0.78	0.06
	Competence	263	0.0–50.0–70.0–80.0–100.0	65.4 (62.8–68.0)	21.5	-0.36	-0.36
ICT skills	Importance	265	55.0–75.0–90.0–100.0–100.0	86.8 (85.3–88.2)	12.2	-0.55	-0.60
	Competence	263	25.0–60.0–75.0–90.0–100.0	74.3 (72.0–76.7)	19.3	-0.48	-0.45
Interpersonal skills	Importance	265	50.0–80.0–90.0–95.0–100.0	86.5 (85.1–87.9)	11.3	-0.63	-0.12
	Competence	263	20.0–65.0–75.0–85.0–100.0	74.4 (72.4–76.3)	15.9	-0.35	0.19
Ability to work as a team	Importance	265	30.0–75.0–80.0–90.0–100.0	80.7 (79.0–82.4)	14.0	-0.51	0.24
	Competence	263	15.0–50.0–70.0–75.0–100.0	66.5 (64.2–68.7)	18.6	-0.33	-0.19
Leadership skills	Importance	265	30.0–75.0–85.0–95.0–100.0	83.1 (81.3–84.8)	14.6	-0.89	0.79
	Competence	263	0.0–55.0–70.0–80.0–100.0	67.9 (65.6–70.2)	19.1	-0.48	0.19
Problem solving skills	Importance	265	35.0–75.0–85.0–95.0–100.0	84.2 (82.7–85.6)	11.9	-0.75	0.89
	Competence	263	0.0–50.0–70.0–75.0–100.0	65.5 (63.3–67.7)	18.2	-0.38	0.35
Adaptability skills	Importance	265	41.7–75.0–83.3–95.8–100.0	84.2 (82.7–85.7)	12.7	-0.78	0.58
	Competence	263	0.0–50.0–66.7–79.2–100.0	64.4 (62.0–66.8)	19.8	-0.34	-0.03
Risk taking skills	Importance	265	20.0–70.0–80.0–90.0–100.0	78.8 (77.0–80.6)	15.1	-0.61	0.58
	Competence	263	0.0–50.0–60.0–75.0–100.0	60.9 (58.7–63.2)	18.5	-0.29	0.22
Creativity skills	Importance	266	31.3–75.0–82.3–93.8–100.0	83.5 (81.8–85.1)	13.7	-0.78	0.62
	Competence	264	0.0–50.0–68.8–75.0–100.0	64.1 (61.7–66.4)	19.6	-0.40	0.27
Time management skills	Importance	266	45.8–89.3–96.4–100.0–100.0	92.2 (91.0–93.3)	9.5	-1.59	3.12
	Competence	264	10.7–64.3–75.0–89.3–100.0	75.0 (72.7–77.2)	18.4	-0.82	0.64

After calculating a mean score for the importance and competency of each skill, MANOVAs were calculated to determine whether or not a significant difference exists between the means of the different sample groups. Since MANOVA only indicates whether or not an overall significant difference exists, post hoc Scheffé's tests were done to determine between which groups the significant difference occurred (cf. 3.3.2.6). In each case, only the MANOVA model F statistic and p-value will be reported, and p-values below 0.05 were considered significant. Since there were four sample groups, the degrees of freedom (df)

for each MANOVA will always be 3. A table comprising of the Scheffé's test results is included in Appendix J.

Due to the fact that respondents mostly indicated that the different employability skills are important, only a few significant differences between group mean scores for the importance of employability skills were found. However, several significant differences between the mean scores of the views on competency regarding employability skills between groups were found. Each skill will be discussed as follows.

4.4.3.1 *Communication skills*

As seen in Figure 4.2 all four sample groups indicated that communication skills were important for career success and no significant difference regarding the importance of communication skills was found between the different groups ($F=1.22$, $p=0.3018$).

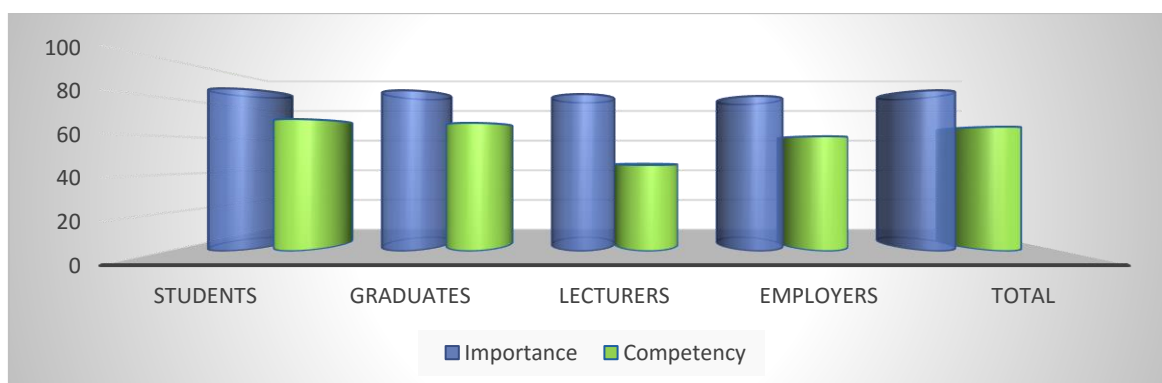


FIGURE 4.2: COMMUNICATION SKILLS: THE IMPORTANCE THEREOF IN THE WORKPLACE AND GRADUATE COMPETENCY

However, results concerning graduates' communication skills competency showed a significant difference between some of the groups ($F=11.21$, $p<.0001$). The Scheffé's test indicated significant differences between students and employers, students and lecturers as well as graduates and lecturers and lecturers and employers. Students indicated that they are competent regarding communication skills with a mean score of 69.50 contradicting lecturers' mean score for competency of 45.05. Even though there is still a significant difference between student and employer scores, employers scored their competency 60.49 indicating that they view graduate communication skills to be better than lecturers indicated it to be (Table 4.24).

TABLE 4.24: COMMUNICATION SKILLS: IMPORTANCE AND COMPETENCY MEAN SCORES

COMMUNICATION SKILLS		
Importance		
	Mean	Std Dev
Students (n=91)	85.37	10.03
Graduates (n=101)	84.31	10.57
Lecturers (n=12)	82.55	11.65
Employers (n=61)	81.86	12.88
N=265	84.03	11.04
Competency		
	Mean	Std Dev
Students (n=91)	69.50	14.51
Graduates (n=101)	67.22	13.85
Lecturers (n=12)	45.05	10.94
Employers (n=59)	60.49	20.40
N=263	65.49	16.56

4.4.3.2 *English language proficiency*

The importance of English language proficiency received a high overall mean score of 86.85 with none of the sample groups having a mean score of less than 84.10 (Table 4.25). A significant difference does exist ($F=2.97$, $p=0.0326$) between graduates and students as indicated by Scheffé's test. Graduates gave the highest mean score (89.26). Although students also gave the importance of English language proficiency an average score of 84.11, they scored it the lowest of all four groups.

TABLE 4.25: ENGLISH LANGUAGE PROFICIENCY: IMPORTANCE AND COMPETENCY MEAN SCORES

ENGLISH LANGUAGE PROFICIENCY		
Importance		
	Mean	Std Dev
Students (n=90)	84.11	12.47
Graduates (n=101)	89.26	11.71
Lecturers (n=12)	84.58	10.33
Employers (n=61)	87.36	13.15
N=264	86.85	12.40
Competency		
	Mean	Std Dev
Students (n=91)	67.36	20.38
Graduates (n=101)	71.93	19.29
Lecturers (n=12)	47.50	14.69
Employers (n=59)	54.92	22.52
N=263	65.42	21.52

English language proficiency competency scores were considerably lower and a significant difference between groups was found ($F=12.17$, $p<.0001$). Scheffé's test indicated that of the six possible differences, all were significant barring the two between lecturers and

employers and between graduates and students. As seen in Figure 4.3, lecturers and employers viewed graduates' English language proficiency lower than graduates and students viewed their competency to be.

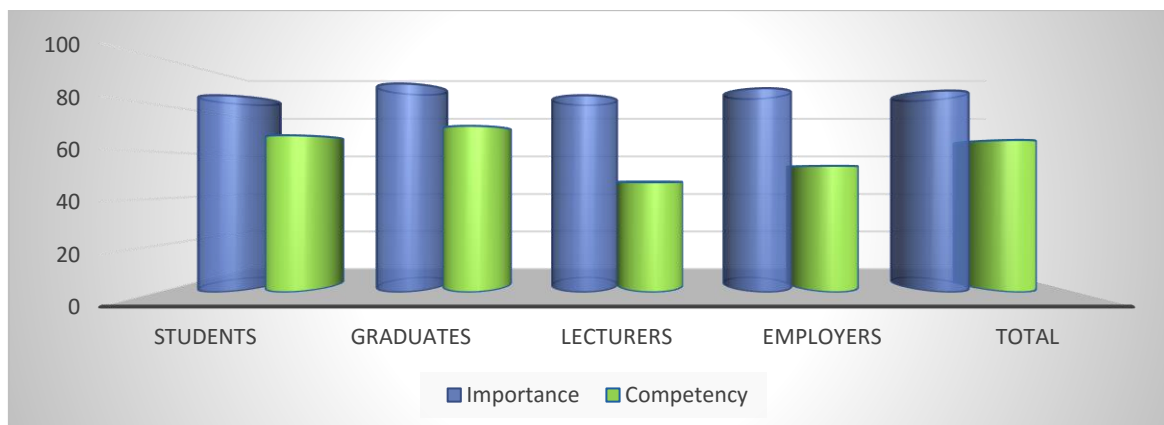


FIGURE 4.3: ENGLISH LANGUAGE PROFICIENCY: THE IMPORTANCE THEREOF IN THE WORKPLACE AND GRADUATE COMPETENCY

4.4.3.3 *Information, communication and technology (ICT) skills*

Results indicated that ICT skills are viewed as important in the workplace with a total mean score of 86.75 (Table 4.26).

TABLE 4.26: ICT SKILLS: IMPORTANCE AND COMPETENCY MEAN SCORES

INFORMATION, COMMUNICATION AND TECHNOLOGY (ICT) SKILLS		
Importance		
	Mean	Std Dev
Students (n=91)	87.17	12.00
Graduates (n=101)	86.53	11.89
Lecturers (n=12)	86.67	12.49
Employers (n=61)	86.52	13.18
N=265	86.75	12.19
Competency		
	Mean	Std Dev
Students (n=91)	79.71	16.71
Graduates (n=101)	75.82	19.75
Lecturers (n=12)	60.00	18.22
Employers (n=59)	66.46	18.86
N=263	74.34	19.28

No significant difference was found between the groups regarding the importance of ICT skills ($F=0.05$, $p=0.9841$). However, a significant difference was found between how competent some groups indicated graduates to be regarding ICT skills ($F=8.77$, $p<.0001$). A significant difference in scores was found between students and employers, students and lecturers as well as graduates and employers using Scheffé's test. Results indicated that

students and graduates gave higher scores regarding ICT skill competency in comparison to lecturer and employer scores. Overall respondents scored newly employed consumer science employees ICT competency lower than the importance of ICT skills (Figure 4.4).

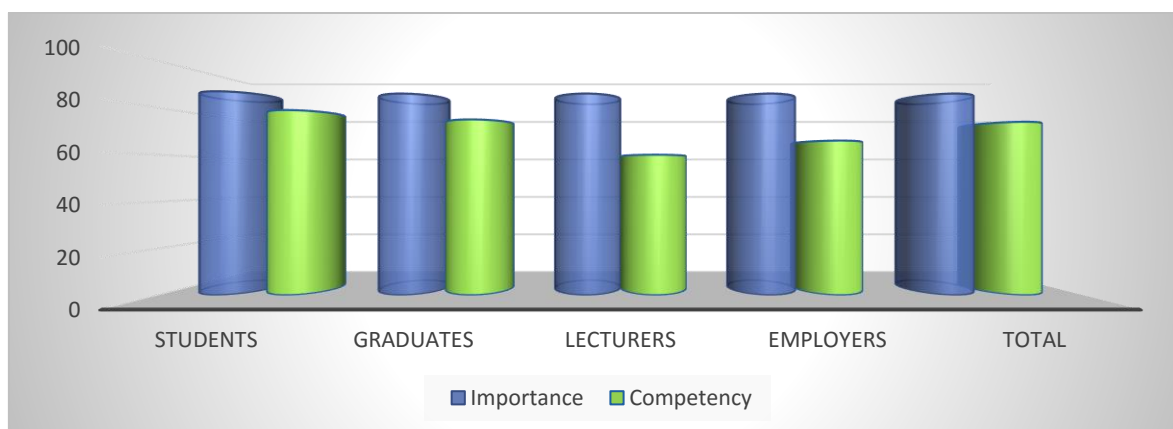


FIGURE 4.4: ICT SKILLS: THE IMPORTANCE THEREOF IN THE WORKPLACE AND GRADUATE COMPETENCY

4.4.3.4 *Interpersonal skills*

The importance of interpersonal skills received an overall high mean score (86.50) (Table 4.27) and no significant difference was found between the groups ($F=3.20$, $p=0.0239$).

TABLE 4.27: INTERPERSONAL SKILLS: IMPORTANCE AND COMPETENCY MEAN SCORES

INTERPERSONAL SKILLS		
Importance		
	Mean	Std Dev
Students (n=91)	89.45	10.26
Graduates (n=101)	85.42	10.95
Lecturers (n=12)	84.17	9.25
Employers (n=61)	84.34	12.83
N=265	86.50	11.27
Competency		
	Mean	Std Dev
Students (n=91)	78.74	15.01
Graduates (n=101)	75.10	15.10
Lecturers (n=12)	60.83	13.11
Employers (n=59)	69.07	16.57
N=263	74.35	15.94

A significant difference ($F=8.00$, $p<.0001$) was found between the competency scores of the different groups. As seen with the previous skills, lecturers and employers scored the competency of graduate's interpersonal skills lower than graduates and students (Figure 4.5). According to Scheffé's test a significant difference did not occur between graduates

and employers; however, significant differences were found between graduates and lecturers, students and lecturers as well as students and employers.

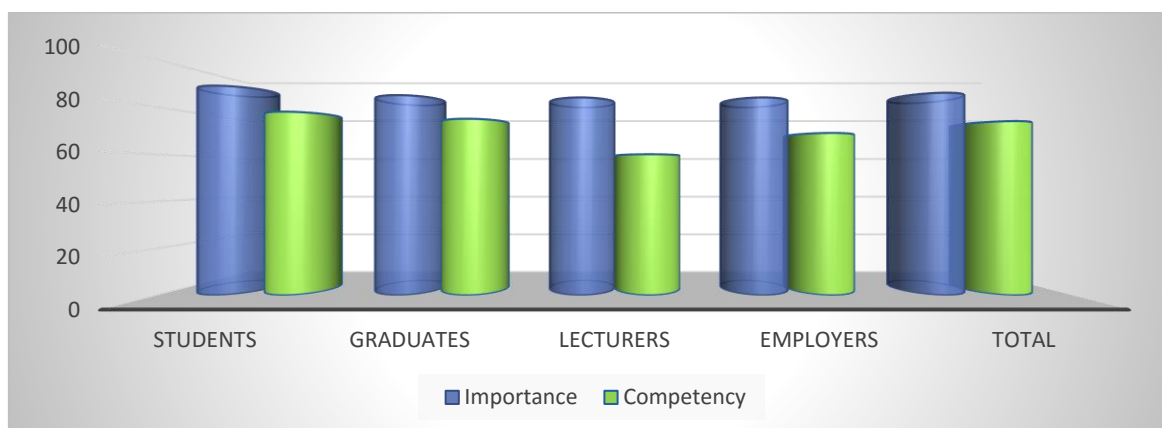


FIGURE 4.5: INTERPERSONAL SKILLS: THE IMPORTANCE THEREOF IN THE WORKPLACE AND GRADUATE COMPETENCY

4.4.3.5 Teamwork skills

Results showed that teamwork skills are regarded as important in the workplace with a total mean score of 80.70 (Table 4.28) and no significant difference was found between the groups ($F=1.57$, $p=0.1964$).

TABLE 4.28: TEAMWORK SKILLS: IMPORTANCE AND COMPETENCY MEAN SCORES

ABILITY TO WORK AS A TEAM		
Importance		
	Mean	Std Dev
Students (n=91)	80.25	14.32
Graduates (n=101)	80.72	13.47
Lecturers (n=12)	73.33	16.56
Employers (n=61)	82.79	13.83
N=265	80.70	14.04
Competency		
	Mean	Std Dev
Students (n=91)	70.21	17.85
Graduates (n=101)	66.93	16.43
Lecturers (n=12)	52.08	18.15
Employers (n=59)	62.92	21.33
N=263	66.49	18.55

Nevertheless, a significant difference was found ($F=4.55$, $p=0.0040$) regarding competency of teamwork skills between students and lecturers using Scheffé's test. Lecturers scored graduates' competency 52.08 in comparison with students who scored it 70.21. Although the only significant difference was found between students and lecturers, students' and graduates' mean scores for competency was higher than those of lecturers and employers.

It was indicated by respondents that teamwork skills are much more important than the competency of newly employed consumer science graduates to work in teams (Figure 4.6).

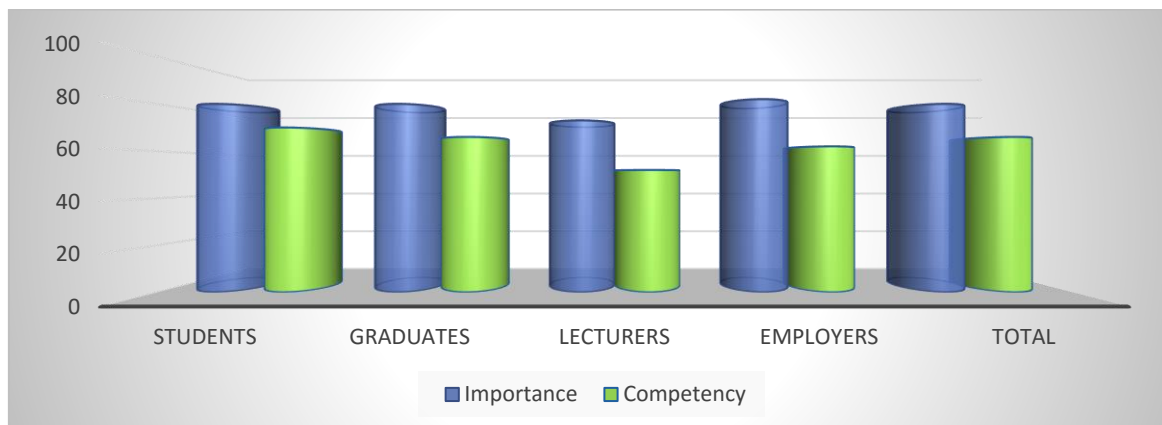


FIGURE 4.6: TEAMWORK SKILLS: THE IMPORTANCE THEREOF IN THE WORKPLACE AND GRADUATE COMPETENCY

4.4.3.6 Leadership skills

When asked how important leadership skills were for successful career performance, results showed a high total mean score of 83.07 (Table 4.29).

TABLE 4.29: LEADERSHIP SKILLS: IMPORTANCE AND COMPETENCY MEAN SCORES

LEADERSHIP SKILLS		
Importance		
	Mean	Std Dev
Students (n=91)	87.20	11.28
Graduates (n=101)	81.73	15.09
Lecturers (n=12)	74.58	14.37
Employers (n=61)	80.78	16.79
N=265	83.07	14.61
Competency		
	Mean	Std Dev
Students (n=91)	74.15	15.50
Graduates (n=101)	68.49	17.05
Lecturers (n=12)	54.17	15.35
Employers (n=59)	60.02	23.88
N=263	67.89	19.13

A significant difference was found by MANOVA ($F=4.73$, $p=0.0031$), and Scheffé's test revealed a significant difference between how important lecturers scored leadership skills (74.58) in comparison to students (87.20). Students indicated leadership skills to be more important than lecturers indicated it to be. The overall competency rating of leadership skills was much lower (67.89) and a significant difference ($F=9.51$, $p<.0001$) between some of the sample groups occurred. Scheffé's test indicated a significant difference between students and employers, students and lecturers as well as employers and graduates.

Although a significant difference did not occur between graduates and lecturers, as seen previously, employers and lecturers scored the competency of graduates lower than students and graduates (Figure 4.7).

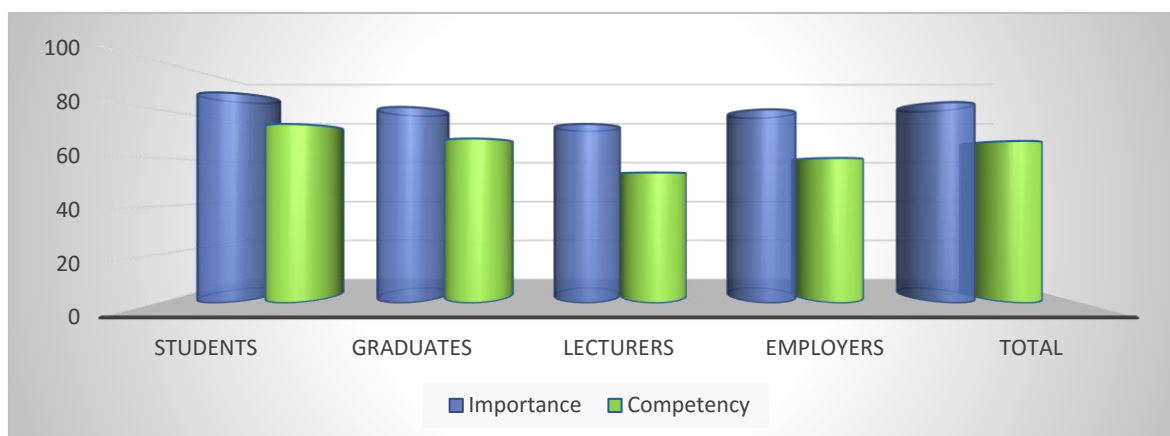


FIGURE 4.7: LEADERSHIP SKILLS: THE IMPORTANCE THEREOF IN THE WORKPLACE AND GRADUATE COMPETENCY

4.4.3.7 Problem solving skills

The importance of problem solving skills received a high overall mean score of 84.15 (Table 4.30) with no significant difference between the groups ($F=2.12$, $p=0.0975$).

TABLE 4.30: PROBLEM SOLVING SKILLS: IMPORTANCE AND COMPETENCY MEAN SCORES

PROBLEM SOLVING SKILLS		
Importance		
	Mean	Std Dev
Students (n=91)	84.67	10.74
Graduates (n=101)	85.73	11.47
Lecturers (n=12)	79.58	17.90
Employers (n=61)	81.66	12.63
N=265	84.15	11.92
Competency		
	Mean	Std Dev
Students (n=91)	70.29	15.93
Graduates (n=101)	67.08	16.45
Lecturers (n=12)	50.00	11.87
Employers (n=59)	58.69	21.87
N=263	65.53	18.24

Newly employed consumer science graduates' problem solving competency received a much lower overall mean score (65.53) and a significant difference was found between groups ($F=8.68$, $p<.0001$). Lecturers and employers gave the lowest scores and Scheffé's test revealed a significant difference between students and employers, students and

lecturers, graduates and employers and graduates and lecturers. Competency scores were noticeably lower than mean scores for the importance of problem solving skills (Figure 4.8).

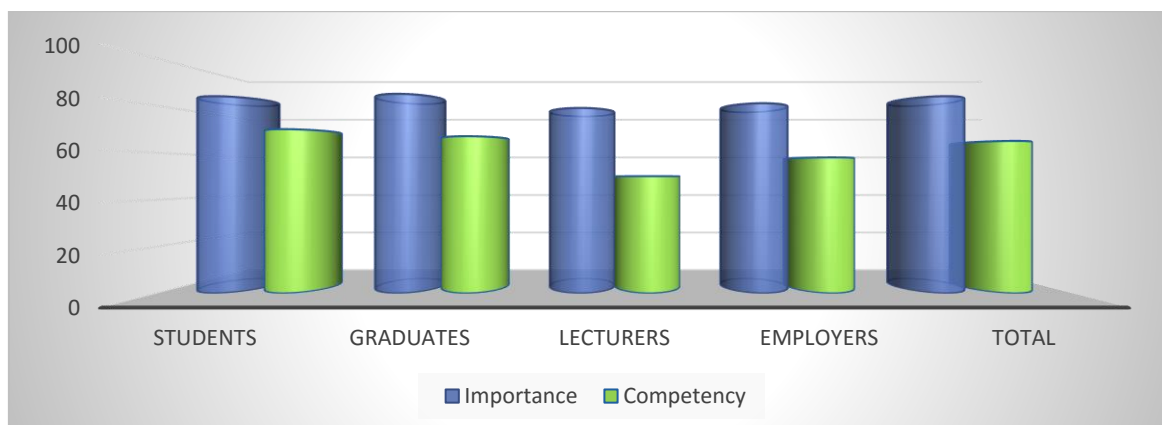


FIGURE 4.8: PROBLEM SOLVING SKILLS: THE IMPORTANCE THEREOF IN THE WORKPLACE AND GRADUATE COMPETENCY

4.4.3.8 *Adaptability skills*

The importance of adaptability skills received a high mean score of 84.19 (Table 4.31) with no significant difference between the groups ($F=2.48$, $p=0.0617$).

TABLE 4.31: ADAPTABILITY SKILLS: IMPORTANCE AND COMPETENCY MEAN SCORES

ADAPTABILITY SKILLS		
Importance		
	Mean	Std Dev
Students (n=91)	85.22	12.37
Graduates (n=101)	85.68	11.33
Lecturers (n=12)	78.82	16.33
Employers (n=61)	81.24	14.15
N=265	84.19	12.72
Competency		
	Mean	Std Dev
Students (n=91)	67.35	16.52
Graduates (n=101)	66.86	18.71
Lecturers (n=12)	52.08	13.93
Employers (n=59)	58.19	24.76
N=263	64.41	19.80

Competency scores were lower (Figure 4.9) with an overall score of 64.41; however, a significant difference ($F=4.88$, $p=0.0026$) was only found between students (67.35) and employers (58.19) by Scheffé's test. Students scored their adaptability skills higher than the other sample groups followed by graduates (66.86). Although a significant difference was not found, lecturers gave the lowest score for graduates' adaptability competence.

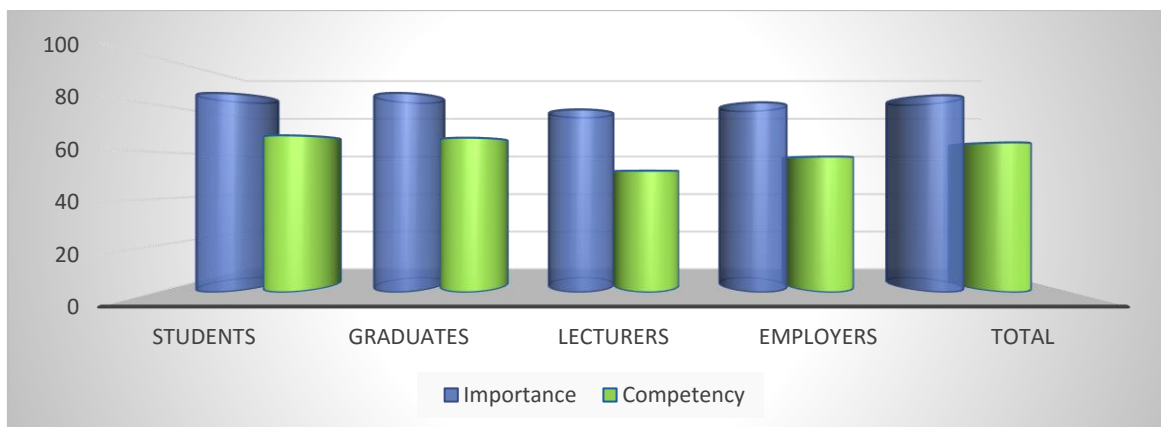


FIGURE 4.9: ADAPTABILITY SKILLS: THE IMPORTANCE THEREOF IN THE WORKPLACE AND GRADUATE COMPETENCY

4.4.3.9 Risk taking skills

The importance of risk taking skills received the lowest mean score (78.82) in comparison to other employability skills (Table 4.32).

TABLE 4.32: RISK TAKING SKILLS: IMPORTANCE AND COMPETENCY MEAN SCORES

RISK TAKING SKILLS		
Importance		
	Mean	Std Dev
Students (n=91)	80.74	13.56
Graduates (n=101)	80.30	13.47
Lecturers (n=12)	70.83	17.30
Employers (n=61)	75.08	18.22
N=265	78.82	15.09
Competency		
	Mean	Std Dev
Students (n=91)	65.00	15.83
Graduates (n=101)	61.93	16.58
Lecturers (n=12)	50.42	21.37
Employers (n=59)	54.96	22.65
N=263	60.90	18.52

No significant difference was found between groups ($F=3.28$, $p=0.0214$). Competency was scored lower (60.90) and a significant difference ($F=5.13$, $p=0.0018$) was found between students (65.00) and employers (54.96) using Scheffé's test. Students scored their risk taking competency the highest, followed by graduates (61.93), while lecturers' mean scores (50.42) were the lowest. The difference between importance and competency mean scores is seen in Figure 4.10.

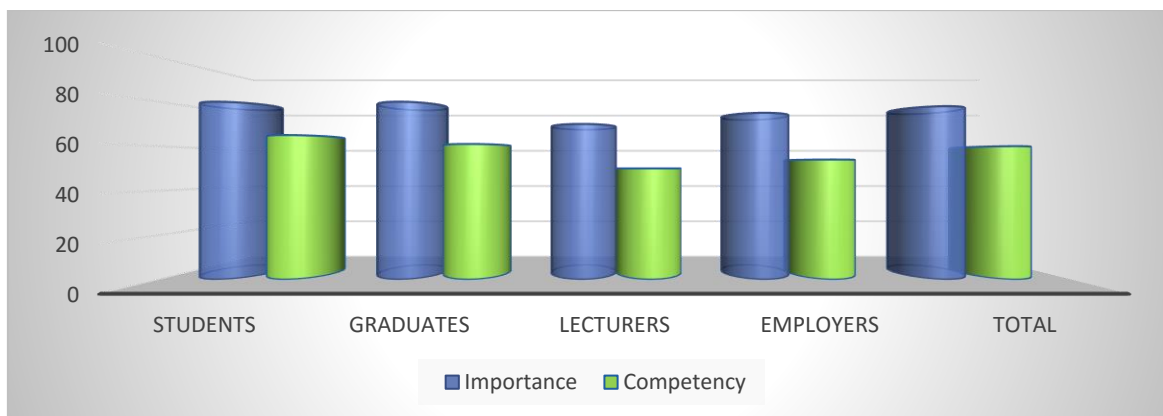


FIGURE 4.10: RISK TAKING SKILLS: THE IMPORTANCE THEREOF IN THE WORKPLACE AND GRADUATE COMPETENCY

4.4.3.10 Creativity skills

The total mean score for the importance of creativity skills was high (83.49) (Table 4.33); however, MANOVA indicated that a significant difference between sample groups did occur ($F=3.90$, $p=0.0095$). Scheffé's test indicated the significant difference to be between students (86.54) and employers (79.71).

TABLE 4.33: CREATIVITY SKILLS: IMPORTANCE AND COMPETENCY MEAN SCORES

CREATIVITY SKILLS		
Importance		
	Mean	Std Dev
Students (n=91)	86.54	11.45
Graduates (n=101)	84.18	12.55
Lecturers (n=13)	74.52	21.57
Employers (n=61)	79.71	15.21
N=266	83.49	13.71
Competency		
	Mean	Std Dev
Students (n=91)	69.16	16.77
Graduates (n=101)	63.92	17.89
Lecturers (n=13)	57.21	18.37
Employers (n=59)	57.94	24.20
N=264	64.06	19.55

Results showed that students are of the opinion that creativity skills are more important in the workplace than employers indicated it to be (Figure 4.11). The overall mean score for creativity competency (64.06) was lower than the importance thereof. A significant difference ($F=4.46$, $p=0.0045$) was found between sample groups between students and employers (Scheffé's test). Students viewed their creativity competency higher (69.16) than employers (57.94) and the rest of the sample groups.

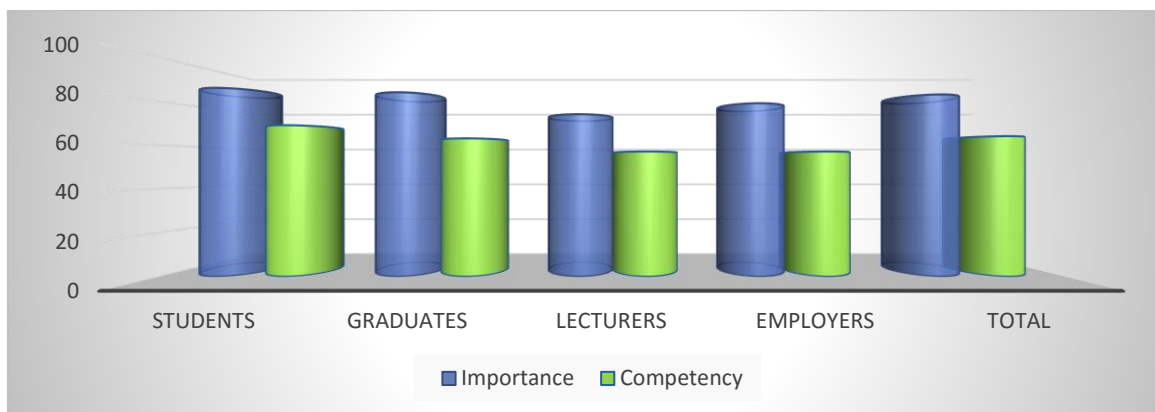


FIGURE 4.11: CREATIVITY SKILLS: THE IMPORTANCE THEREOF IN THE WORKPLACE AND GRADUATE COMPETENCY

4.4.3.11 *Time management skills*

The importance of personal organisation and time management skills received a high mean score of 92.16 across the four sample groups (Table 4.34).

TABLE 4.34: TIME MANAGEMENT SKILLS: IMPORTANCE AND COMPETENCY MEAN SCORES

PERSONAL ORGANISATION AND TIME MANAGEMENT SKILLS		
Importance		
	Mean	Std Dev
Students (n=91)	92.39	8.64
Graduates (n=101)	93.15	9.15
Lecturers (n=13)	92.58	10.25
Employers (n=61)	90.08	10.80
N=266	92.16	9.46
Competency		
	Mean	Std Dev
Students (n=91)	81.22	13.12
Graduates (n=101)	79.07	14.72
Lecturers (n=13)	53.85	14.69
Employers (n=59)	62.95	22.74
N=264	74.97	18.43

No significant difference was found between the groups ($F=1.36$, $p=0.2543$). A significant difference did, however, exist regarding how some sample groups viewed time management competency ($F=24.28$, $p<.0001$). Scheffé's test showed a significant difference between students and employers, students and lecturers, as well as graduates and employers and graduates and lecturers. Students scored their competency the highest (81.22) followed by graduates (79.07) whereas employers (62.95) and lecturers (53.85) gave it a much lower score. There was a clear difference regarding the importance of time

management skills, and how competent respondents rated newly employed consumer science graduates to be regarding time management skills (Figure 4.12).

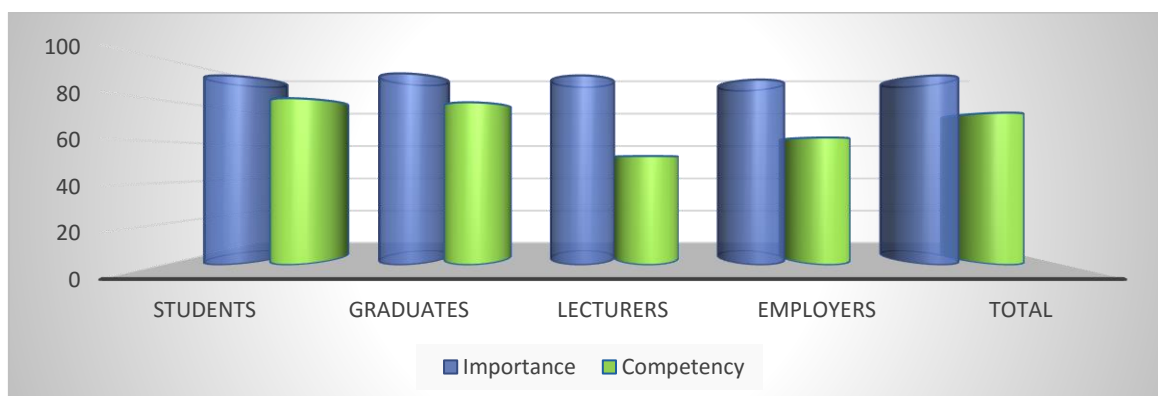


FIGURE 4.12: TIME MANAGEMENT SKILLS: THE IMPORTANCE THEREOF IN THE WORKPLACE AND GRADUATE COMPETENCY

4.4.3.12 Summary of total score for each skill

Although some significant differences did occur between the mean scores of sample groups regarding the importance of different skills, in general all the different employability skills received high mean scores indicating the importance of each skill. As seen in Table 4.35, time management received the highest overall mean score (92.16) followed by English language proficiency (86.85) and ICT skills (86.75). Risk taking skills received the lowest overall mean score (78.82); however, it was still a high mean score.

TABLE 4.35: EMPLOYABILITY SKILLS: IMPORTANCE AND COMPETENCY MEAN SCORES

EMPLOYABILITY SKILL	IMPORTANCE	COMPETENCY
Communication	84.03	65.49
English	86.85	65.42
ICT	86.75	74.34
Interpersonal	86.50	74.35
Teamwork	80.70	66.49
Leadership	83.07	67.89
Problem solving	84.15	65.53
Adaptability	84.19	64.41
Risk taking	78.82	60.90
Creativity	83.49	64.06
Time management	92.16	74.97

Results regarding the competency scores showed more significant differences between the sample groups. Students' mean scores were consistently higher followed by graduate scores. Lecturers' mean scores were the lowest. It was also shown that numerous significant differences occurred between employers' and students' mean scores. As seen

in Figure 4.13, although the different skills received high mean scores regarding the importance of each skill, competency mean scores were much lower for the different skills.

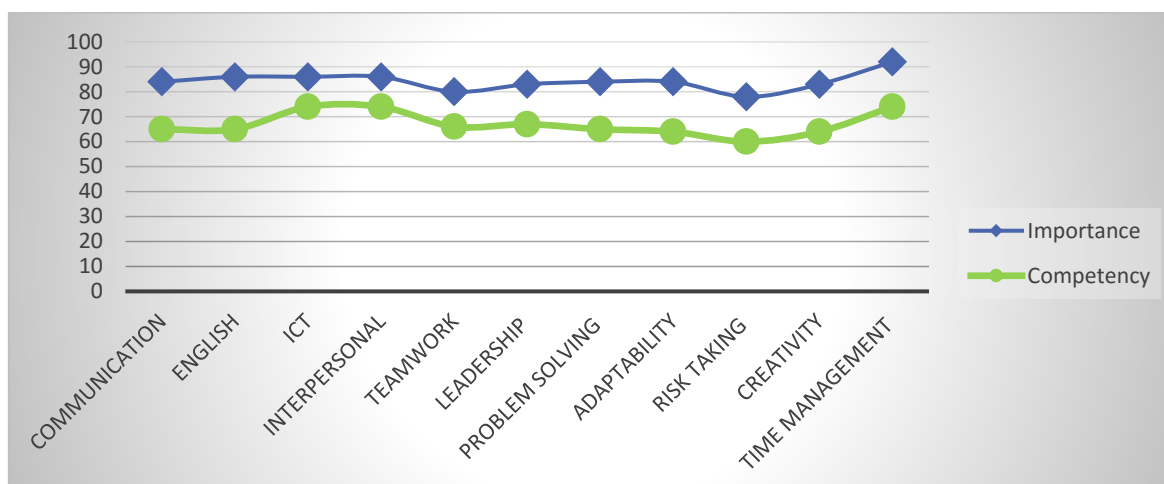


FIGURE 4.13: EMPLOYABILITY SKILLS: THE IMPORTANCE THEREOF IN THE WORKPLACE AND GRADUATE COMPETENCY

According to literature, one of the best strategies to teach employability skills is work experience (Tran 2015:221). Students had to indicate whether or not they have done an internship or any other work during holidays, in order to determine if this might have an effect on how they rate the importance of different skills as well as how competent they rate themselves regarding each skill. Taking the above-mentioned mean scores into consideration, no significant difference was found between the mean scores of students with work experience, and those with no work experience (Table 4.36).

TABLE 4.36: DIFFERENCES IN SUBSCALE SCORES BY INTERNSHIP (YES/NO)

(Table continues on next page)

Subscale	Item set	Means		df	t	p
		Yes (N=73)	No (N=18)			
Communication skills	Importance	86.26	81.77	89	1.72	0.089
	Competence	70.09	67.11	89	0.78	0.439
English language proficiency	Importance ^a	84.72	81.67	88	0.93	0.355
	Competence	67.06	68.61	89	-0.29	0.773
ICT skills	Importance	87.91	84.17	89	1.19	0.238
	Competence	81.49	72.50	89	2.08	0.040
Interpersonal skills	Importance	89.38	89.72	89	-0.12	0.901
	Competence	79.66	75.00	89	1.18	0.241
Ability to work as a team	Importance	79.93	81.53	89	-0.42	0.674
	Competence	70.89	67.43	89	0.73	0.465
Leadership skills	Importance	87.06	87.78	89	-0.24	0.809
	Competence	74.45	72.92	89	0.37	0.709
Problem solving skills	Importance	84.68	84.65	89	0.01	0.994
	Competence	70.50	69.44	89	0.25	0.803
Adaptability skills	Importance	85.80	82.87	89	0.90	0.371

Subscale	Item set	Means		df	t	p
		Yes (N=73)	No (N=18)			
	Competence	67.75	65.74	89	0.46	0.646
Risk taking skills	Importance	80.72	80.83	89	-0.03	0.975
	Competence	65.96	61.11	89	1.17	0.247
Creativity skills	Importance	86.13	83.44	89	-0.68	0.496
	Competence	69.61	67.36	89	0.51	0.614
Time management skills	Importance	92.03	93.85	89	-0.80	0.425
	Competence	81.51	80.06	89	0.42	0.677

a: N=72

Different work-based activities are done in class, which may be the reason why there was no significant difference between the students with actual work experience and those with no work experience. As previously discussed, there were, however, differences in results between students and other sample groups, particularly between students and lecturers and students and employers.

4.4.4 Most important skills for career success

Respondents were asked to indicate which of the 11 employability skills they think is most important for career success by choosing three of the skills listed (Table 4.37).

TABLE 4.37: MOST IMPORTANT EMPLOYABILITY SKILLS FOR CAREER SUCCESS

	STUDENTS n=91		GRADUATES n=101		LECTURERS n=13		EMPLOYERS n=61	
	n	%	n	%	n	%	n	%
Communication skills	71	78.02	68	67.33	11	84.62	40	65.57
English language proficiency	14	15.38	17	16.83	1	7.69	12	19.67
ICT skills	14	15.38	33	32.67	3	23.08	13	21.31
Interpersonal skills	16	17.58	17	16.83	2	15.38	13	21.31
Ability to work as a team	23	25.27	26	25.74	4	30.77	12	19.67
Leadership skills	15	16.48	12	11.88	-	-	13	21.31
Problem solving skills	34	37.36	49	48.51	9	69.23	31	50.82
Adaptability skills	18	19.78	27	26.73	1	7.69	8	13.11
Risk taking skills	7	7.69	6	5.94	-	-	1	1.64
Creativity skills	32	35.16	12	11.88	-	-	12	19.67
Time management skills	30	32.97	45	44.55	5	38.46	31	50.82

Communication skills were chosen by the most respondents in all four sample groups as being important for career success. Problem solving skills received the second highest score by all four sample groups. Personal organisation and time management skills received the third highest score by graduates, lecturers and employers whereas students gave creativity skills the third highest score. It was also interesting to see that risk taking skills received the lowest score by all four sample groups, as it also received the lowest mean score for importance, in the previous section (cf. Table 4.29).

4.4.4.1 *Important other skills for career success*

Respondents also had the opportunity to indicate which other skills they view as important other than the 11 skills mentioned above or besides theoretical skills. Responses of each sample group to this open question were analysed and coding was done by using descriptive words. Themes were tabulated, followed by categories where relevant. Findings will be discussed in the next sections (Quotes by respondents are verbatim; therefore, some spelling mistakes may be present).

Students

Seven themes emerged from responses to the open-ended question by students who indicated which other skills they regard as important for career success: *personal attributes, experience, extended knowledge, lifelong learner, conflict management, independent and team worker and business management skills* (Table 4.38).

TABLE 4.38: STUDENTS: OTHER SKILLS IMPORTANT FOR CAREER SUCCESS
(Table continues on next page)

THEME	CATEGORY	QUOTE
Personal attributes	Being goal driven	Setting goals (personal and work wise) Being driven (x2) to excel
	Hard working	Hard working e.g. comitting
	Disciplined	Dissipline [Discipline]
	Motivated	Being motivated Taking initiative
	Determined	Determination
	People skills	Social skills Helping others Ander mense in ag neem [Taking others into consideration] Making changes in other people's life's by setting good example
	Responsible	Responsible (x2)
	Being presentable	How one presents their self to clients and colleagues
	Positive attitude	Be positive Eagerness and passion for your job Enthusiasm
	Being confident	Confidence
	Work life balance	Being able to balance your life. (Personal and professional)
Experience		Experience
Extended knowledge		Multi-dimensional knowledge (e.g. know what is going on in each dept. of company)
Lifelong learner		Keep on learning new things & traits Being able to grow in your career and to continue learning more and more from your work/career Be able to learn more every day

THEME	CATEGORY	QUOTE
		Being teachable and willing to learn
Conflict management		Conflict Management skills
Independent and team worker		Op jou eie en in 'n span kan werk [work as an individual and as part of a team]
Business management skills		Business management skills

The personal attributes students indicated to be important included being goal driven, working hard, being disciplined, motivated, determined, having good people skills, being responsible, presentable, having a positive attitude, being confident and know how to have work life balance. As explained in Chapter 2 (cf. 2.4.4) most of the above-mentioned skills can be linked to interpersonal skills. Nagarajan and Edwards (2014a:20) explain that interpersonal skills are also referred to as personal attributes or qualities. Furthermore, work life balance forms part of time management skills (cf. 2.4.11) and can also not be seen as a new or additional skill.

In addition, students indicated that it is important to have experience. Literature found that employees with work experience are sought after by employers (cf. 2.5.2.1) (Helyer & Lee 2014:348; Omar *et al.* 2012:106; Tran 2015:221) and although not viewed as a specific skill in this study, it is reassuring that students realise it is important to have experience when entering the work environment. Students also indicated that extended knowledge and being a lifelong learner is important, which indicates the importance of knowledge. Conflict management was also noted to be important. Communication and teamwork skills (cf. 2.4.1; 2.4.5) also include being able to manage conflict. Students also indicated the importance of being independent as well as a team player. Kulkarni and Chachadi (2014:67) explain that an important part of teamwork involves that individuals must be able to function successfully as an individual to be successful in a team (cf. 2.4.5). Lastly, students also indicated that business management skills were important for career success.

Graduates

Eight themes emerged concerning other skills graduates regard as important for successful careers (Table 4.39). These themes included *personal attributes, cultural awareness, lifelong learner, practical and theoretical knowledge, professionalism, interacting properly in the business environment, independent working and other.*

TABLE 4.39: GRADUATES: OTHER SKILLS IMPORTANT FOR CAREER SUCCESS
 (Table continues on next page)

THEME	CATEGORY	QUOTE
Personal attributes	Being motivated	Having something to motivate you as a person, like a hobby. Motivation to work and be successful Motivation, ambition, to know what you want and have a life plan. Motivational skills (x3) Self-motivation (x3) To push yourself further
	Hard working	Hard work; being able to see a project through & provide results above the standard norm - from my own experience this is not necessarily something that a course or degree can teach you - but a personality trait Willing to work hard (x2) and go the extra mile. Work work work and never give up!! dedication and hardworking
	Discipline	Self-dissipline [Self-discipline]
	Positive	Positiwiteit [Positivity]
	Being accountable	Accountability
	Work life balance	Able to separate personal and work life and time Balance
	Honesty	Integrity and Basic Manners Wees ten alle tye eerlik en regverdig!! [Always being honest and fair] Honesty about your capabilities
	Having patience	Patience (x2) with clients and co-workers
	Being resilient	Skill to cope with criticism; Be prepared to handle disappointments.
Cultural awareness		Being able to work with people who have very different beliefs and habits. Cultural awareness skills The skill for understanding different cultures Understanding of diversity and culture and a respect for it.
Lifelong learner		To be ready to keep learning as you work. Theoretical knowledge is not enough, when you start working, you learn while you work. Willingness to learn (x2) from others
Practical and theoretical knowledge		Knowledge of the specific job that you do, you have to be good at what you do. For example, retail, you have to understand the retail business and the consumer in order to perform to the best of your potential in your job. More practical skills in the industry that you are studying for it helps a bit to assure you have the basic skills to start with. Practical experience Realization that theoretical knowledge doesn't directly relate to practice. Share your knowledge and understanding of a subject matter once you have both theoretical and practical experience Extended knowledge of fabrications, pattern making, quality, sewing is hugely important in the fashion industry Applying knowledge

THEME	CATEGORY	QUOTE
		To be able to do job specification skills...
Professionalism		Professionalism [Professionalism]
Interacting properly in the business environment	Networking	Networking
	Corporate language	Business Lingo Telephone
	Business writing skills	Email etiquette, E-mail communication & responses Writing skills
Independent working		Able to work independently
Other		Research skills

Similar to student respondents, graduates indicated that personal attributes are essential, namely being motivated, hardworking, disciplined, being positive, accountable, having work life balance, being honest, patient and resilient. As mentioned above, these characteristics form part of interpersonal skills (cf. 2.4.4) and work life balance is seen as a component of good time management (cf. 2.4.11). Although it can also be part of interpersonal skills, resilience stood out as an essential skill to have. Graduates indicated that it is important to have a "Skill to cope with criticism" and "Be prepared to handle disappointments". As mentioned during the literature review (cf. 2.4.5) having teamwork skills may enhance the ability to take criticism in a good way (Strom & Strom 2011:242).

Cultural awareness ("Being able to work with people who have very different beliefs and habits") was also found to be an important skill; however, having good communication skills contributes towards this (cf. 2.4.1). Graduate respondents also indicated that being a lifelong learner and having practical and theoretical knowledge is important, supporting the significance of knowledge (cf. 2.4). Professionalism was also mentioned to be important. Since communication skills include communicating professionally (cf. 2.4.1) and interpersonal skills may contribute to building professional relationship in the work environment (cf. 2.4.4), professionalism was not seen as a separate skill for the purpose of this study, and rather merged into the different identified skills. Interacting properly in the business environment (which can also be seen as professionalism) was also identified as a skill. Even though it forms part of communication skills it was worth mentioning since respondents highlighted specific qualities including the importance of being able to network in the work environment, know how to use corporate language and have good business writing skills. This highlights the fact that the different components of communication skills as identified in this study (cf. 4.4.1.1) are important. Furthermore, respondents also indicated that it is not only teamwork that is important but having the ability to work independently is necessary. Lastly, research skills were mentioned under "other".

Lecturers

Only two themes (*personal attributes* and *management skills*) emerged as skills which lecturers think are important for career success other than the 11 identified employability skills (Table 4.40).

TABLE 4.40: LECTURERS: OTHER SKILLS IMPORTANT FOR CAREER SUCCESS

THEME	CATEGORY	QUOTE
Personal attributes	Motivated	A student should be able to constantly motivate themselves, to be better, learn more. Self-motivation and self-control
	Dedicated	Dedication
	Hard working	Willingness to work hard and work long hours.
	Responsible	Responsibility
	Honesty	work ethics & integrity
	Being resilient	Being 'tough' by not absorbing harsh words and conflict in work place, not to allow it to affect personal emotions Handling criticism effectively
Management skills		Management skills

Similar to students and graduates, lecturers indicated that being motivated, dedicated, hardworking, responsible, honest and resilient will help employees succeed in the work environment. It was again noted that respondents pointed out resilience and explained that employees must not allow harsh words and conflict to affect them personally and be able to handle criticism. Lecturers also said that management skills are important for the work environment.

Employers

Seven themes were identified while analysing the findings of the open-ended question regarding additional skills employers think are necessary for career success. These themes were *personal attributes, cultural awareness, practical and theoretical knowledge, professionalism, experience, analytical skills* and *other* (Table 4.41).

**TABLE 4.41: EMPLOYERS: OTHER SKILLS IMPORTANT FOR CAREER SUCCESS
(Table continues on next page)**

THEME	CATEGORY	QUOTE
Personal attributes	Being goal driven	Goal driven
	Hard working	Work hard
	Honest	Honesty (x2) Trustworthy people
	Work under pressure	Ability to work under stress and high pressure

THEME	CATEGORY	QUOTE
	Multi-task	The ability to multi task.
	Responsible	Take ownership ...responsibility...
	Enthusiastic	Show initiative
	Reliable	Reliable
	Being resilient	A thick skin (when working in the industry)
Cultural awareness		Ability to work in a culturally diverse team. To operate without prejudice in a multi-cultural environment
Practical and theoretical knowledge		Technical skills relevant to field, Skills to apply theoretical knowledge practical Practical skills - allowing students to apply their theoretical knowledge in a practical manner, before graduating. The ability to implement theoretical knowledge in a practical way Thorough knowledge of the industry you are working in.
Professionalism		Professionalism regardless personal feelings. Being professional
Experience		Practical Experience is a must for new starters. Learning to work in an actual work environment
Analytical skills		Analytical skills (x2) Food product development is a 50/50 combo of creative skills and analytical skills
Other		Performing instructions effectively ..give what they might ask for
		Attention to detail Specifically, for the Retail Fashion Buying/Merchandising Environment: Microsoft Office - especially Excel and Outlook, Reading Spreadsheets, being able to understand and analyse figures, in terms of sales performance, growth, margin etc., Range-building skills, Understanding OTB (open-to-buy), assortment planning spreadsheets etc.

Personal attributes included being goal driven, working hard, being honest, able to work under pressure, multi-tasking, being responsible, enthusiastic, reliable and resilient, which as explained earlier form part of interpersonal skills (cf. 2.4.4) and could also be enhanced by teamwork skills (cf. 2.4.5). Cultural awareness was again mentioned, ("Ability to work in a culturally diverse team") which could be enhanced by good communication skills (cf. 2.4.1) and also forms part of teamwork skills (cf. 2.4.5).

Practical and theoretical knowledge was found to be important, supporting the conceptual framework for this study (cf. 1.3; Figure 1.1). Professionalism was noted as important. This was similar to graduate respondents and included in other skills including communication and interpersonal skills (cf. 2.4.1; 2.4.4). Employers also indicated that experience ("Learning to work in an actual work environment") as well as analytical skills were important. Additional comments were clustered below "other" including: that employees must be able to perform instructions and pay attention to detail. One

respondent indicated that skills that could be listed under ICT skills are important (e.g. reading spread sheets/figures). These could be viewed as job specific skills.

4.4.4.2 *Summary of important other skills for career success*

Communication skills were chosen by the majority of the respondents as one of the skills most important for career success. In an open question, respondents could indicate which other skills are important for career success. All four sample groups highlighted the importance of personal skills. This theme included a variety of categories indicating the characteristics required from newly employed graduates to succeed in the work environment including: being goal driven, hardworking, disciplined, motivated, determined, responsible, presentable, positive, confident, accountable, honest, patient, resilient, dedicated, enthusiastic, reliable as well as being able to work under pressure, multi-task and have good people skills. The different sample groups' results also presented a variety of other themes including experience, extended knowledge, lifelong learner, conflict management, independent/team worker, business management skills, practical and theoretical knowledge, professionalism, interacting properly in the business environment and analytical skills. Although all the above-mentioned additional skills were identified by respondents, these skills are already included in the 11 employability skills identified in this study. Cultural awareness was something respondents highlighted and its importance must be noted when teaching employability skills.

4.5 RESULTS OF QUESTIONNAIRE SURVEY: SECTION B [Strategies to attain employability skills]

Section B of the questionnaire also included questions regarding the teaching and learning strategies for employability skills and will be discussed in the following section.

4.5.1 Strategies to attain employability skills

As previously mentioned, student, graduate and lecturer questionnaires included a set of questions aimed to determine how graduates attained different employability skills. Each skill was listed and respondents could choose between different options (e.g. group assignments, oral presentations, literature studies, university/faculty/hostel committees or part-time job/internship) to indicate how the skill could be obtained. Respondents included 91 students, 101 graduates and 13 lecturers. Table 4.42 contains the results regarding the best methods to attain different employability skills, according to each sample group.

Results indicated that group assignments were preferred by all three groups as being the best method to teach interpersonal skills, teamwork skills, problem solving skills and creativity skills. It was also the preferred teaching method for communication, ICT, leadership and adaptability skills according to students and graduates. Although lecturers also indicated that group assignments were good methods to teach the above-mentioned skills, the majority of lecturers felt that oral presentations were the best method to teach communication skills, job experience was the best method to learn ICT and leadership skills, and being part of committees was the best method to learn adaptability skills. Furthermore, all three sample groups indicated that literature studies were the best teaching strategy for English language proficiency, being part of committees the best method to attain time management skills and job experience the best method to attain risk taking skills together with group assignments as indicated by lecturers.

TABLE 4.42: STRATEGIES USED TO ATTAIN EMPLOYABILITY SKILLS
(Table continues on next page)

COMMUNICATION SKILLS %					
	Group Assignments	Oral Presentations	Literature studies	University, faculty or hostel committees	Part-time job/ internship
Students	64.84	42.86	15.38	51.65	41.76
Graduates	67.33	63.37	12.87	48.51	43.56
Lecturers	76.92	84.62	23.08	76.92	76.92
ENGLISH LANGUAGE PROFICIENCY %					
	Group Assignments	Oral Presentations	Literature studies	University, faculty or hostel committees	Part-time job/ internship
Students	20.88	28.57	48.35	35.16	32.97
Graduates	26.73	48.51	68.32	28.71	48.51
Lecturers	23.08	69.23	76.92	30.77	61.54
INFORMATION, COMMUNICATION AND TECHNOLOGY(ICT) SKILLS %					
	Group Assignments	Oral Presentations	Literature studies	University, faculty or hostel committees	Part-time job/ internship
Students	57.14	24.18	32.97	40.66	19.78
Graduates	50.50	26.73	39.60	38.61	27.72
Lecturers	38.46	23.08	38.46	30.77	46.15
INTERPERSONAL SKILLS %					
	Group Assignments	Oral Presentations	Literature studies	University, faculty or hostel committees	Part-time job/ internship
Students	67.03	31.87	13.19	54.95	45.05
Graduates	68.32	22.77	6.93	62.38	50.50
Lecturers	84.62	7.69	-	84.62	69.23

TEAMWORK SKILLS %					
	Group Assignments	Oral Presentations	Literature studies	University, faculty or hostel committees	Part-time job/ internship
Students	92.31	16.48	8.79	58.24	38.46
Graduates	96.04	14.85	8.91	61.39	48.51
Lecturers	100.00	7.69	7.69	84.62	92.31
LEADERSHIP SKILLS %					
	Group Assignments	Oral Presentations	Literature studies	University, faculty or hostel committees	Part-time job/ internship
Students	71.43	18.68	8.79	49.45	23.08
Graduates	78.22	18.81	9.90	60.40	45.54
Lecturers	76.92	23.08	-	84.62	53.85
PROBLEM SOLVING SKILLS %					
	Group Assignments	Oral Presentations	Literature studies	University, faculty or hostel committees	Part-time job/ internship
Students	82.42	17.58	17.58	49.45	35.16
Graduates	80.20	18.81	47.52	43.56	55.45
Lecturers	84.62	15.38	23.08	69.23	76.92
ADAPTABILITY SKILLS %					
	Group Assignments	Oral Presentations	Literature studies	University, faculty or hostel committees	Part-time job/ internship
Students	64.84	21.98	12.09	59.34	49.45
Graduates	71.29	25.74	13.86	67.33	65.35
Lecturers	69.23	38.46	15.38	84.62	76.92
RISK TAKING SKILLS %					
	Group Assignments	Oral Presentations	Literature studies	University, faculty or hostel committees	Part-time job/ internship
Students	47.25	21.98	14.29	45.05	49.45
Graduates	39.60	27.72	14.85	48.51	51.49
Lecturers	69.23	38.46	7.69	61.54	69.23
CREATIVITY SKILLS %					
	Group Assignments	Oral Presentations	Literature studies	University, faculty or hostel committees	Part-time job/ internship
Students	67.03	46.15	25.27	54.95	38.46
Graduates	65.35	52.48	38.61	57.43	45.54
Lecturers	84.62	69.23	38.46	61.54	61.54
TIME MANAGEMENT SKILLS %					
	Group Assignments	Oral Presentations	Literature studies	University, faculty or hostel committees	Part-time job/ internship
Students	57.14	23.08	28.57	63.74	53.85
Graduates	57.43	41.58	55.45	61.39	60.40
Lecturers	76.92	61.54	69.23	92.31	84.62

Participants were allowed to choose more than one option, therefore percentages do not add up to 100%

Even though results regarding the best methods to attain each skill were similar between the three sample groups, respondents also indicated other methods that could be used to attain the different skills. The results for each skill have been indicated in a separate graph. Respondents had the option to answer an open-ended question where they could indicate any other ways in which the different skills can be obtained.

4.5.1.1 *Communication skills*

The majority of the student (64.84%) and graduate (67.33%) respondents indicated that the best manner in which to learn communication skills is by group assignments. Even though a significant number of lecturer respondents also indicated that group assignments are valuable to teach communication skills (76.92%), the majority of lecturers (84.62%) indicated that oral presentations are the best method to teach the above. However, as seen in Figure 4.14, group assignments, oral presentations, being part of committees as well as work experience were indicated to be good methods to teach communication skills by more than 40% of each sample group. Literature studies were the least favoured method to teach communication skills.

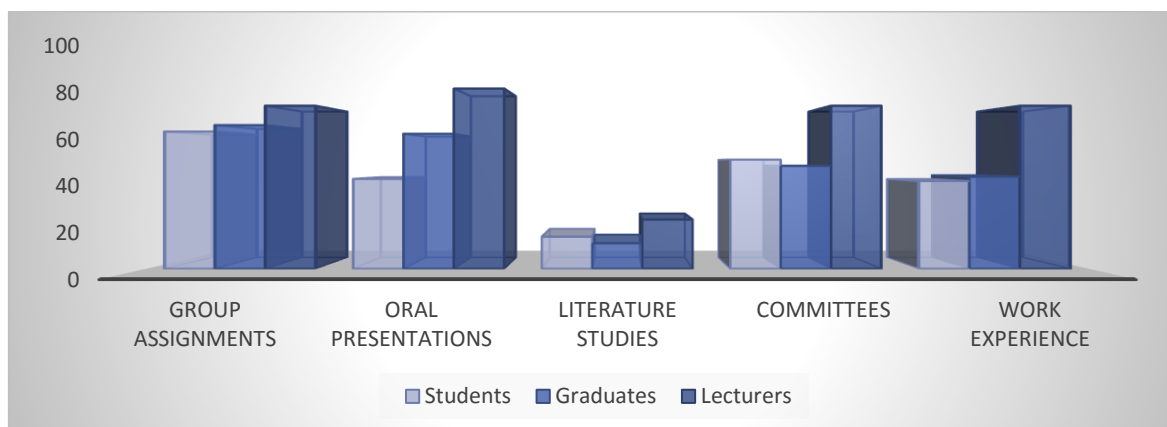


FIGURE 4.14: STRATEGIES USED TO ATTAIN COMMUNICATION SKILLS

Respondents were asked to write down any other method that could enhance communication skills. As done with previous open-ended questions, findings were analysed and descriptive words were given which helped to construct a table consisting of different themes and categories (Table 4.43). Categories were only included where relevant.

TABLE 4.43: ADDITIONAL STRATEGIES TO ATTAIN COMMUNICATION SKILLS

THEME	CATEGORY	QUOTE
Students		
Personal	Informal communication	Talking to people generally and learning how to talk to different people Koshuis [Hostel] Deur ondervinding en kom elke dag in my lewe voor [Through experience and it takes place in my own life each day] Background and how I grew up Non-verbal communication
Education	Courses	Different courses
	Asking questions	Being on University and going to classes and asking questions
	Group discussion	Groep gesprekke in klas [Group discussions in class]
	"Practicals"	Practicals
Graduates		
Personal	Informal communication	Communication in various situations & with different groups are important
	Family and friends	Being part of a social family.
	Personality	One's personality plays a huge part in your communication skills. If you have low self-esteem, you will never be able to bring your opinion to the table.
	Reading	Reading
	Television	Movies and television series.
Education	University	University This can be taught through social skills at university.
	Individual assignments	Individual assignments
	Debating	Took part in debating
	Training sessions	Training sessions for supplemental instruction
Workplace	Work experience	The work environment is the best place to learn Having a full-time job In the workplace Learning and acquiring skills in the work place. Being a practical assistant in the sewing lab However, in the work place the only thing you sometimes have in common with someone is the company you work for - respect & patience can't be learned from a book. Working in different positions at different companies
	Assignments and tasks	Presentations to customers
Lecturers		
Personal		At a young age, at and home
Education		...at school

Personal and *education* were two themes that surfaced in all three sample groups regarding the manner in which graduates learn communication skills. Students revealed that everyday communication enhances communication skills. Graduates supported this and additional personal categories including family and friends were identified. They indicated that being part of a social family will enhance communication skills, one's personality plays a role as

well as reading and watching television. Lecturers also indicated that this is a skill graduates often learn at home from a young age. *Education* as a theme also had a variety of categories. Students indicated that completing different courses and asking questions while in class, being part of group discussions in class as well as being part of “practicals” can enhance communication skills. Graduates added to the theme education by stating that communication is enhanced at university and through individual assignments. (Note that communication skills consist of oral and written communication). Graduates also said that debating and training sessions can improve the different aspects of communication skills. Lecturers indicated that apart from the different strategies indicated in the closed questions, communication skills are also learned at school level before a student enters university. This could be an indication of the important role schools play in the teaching of employability skills.

Graduate findings revealed a third theme which indicated that the *workplace* enhances communication skills. Work experience including tasks in the work environment (e.g. “Presentations to customers”) could help attain good communication skills.

4.5.1.2 *English language proficiency*

Results showed that literature studies were the best manner in which to teach English language proficiency (Figure 4.15). A reason for this could be the fact that the majority of student respondents’ home language is Afrikaans, and literature studies are mainly done in English. Oral presentations were also chosen by lecturers and graduates as a good method to teach the above. The reason why students’ ratings are lower regarding oral presentations might be the fact that they are not always forced to do presentations in English; however, post-graduates are forced to do presentations in English. Work experience was also chosen as a good method to learn English, especially by lecturers and graduates who might have more experience in the work environment. Although group assignments and committee participation received lower scores, there were respondents who indicated that it might also be a good method to improve English skills.

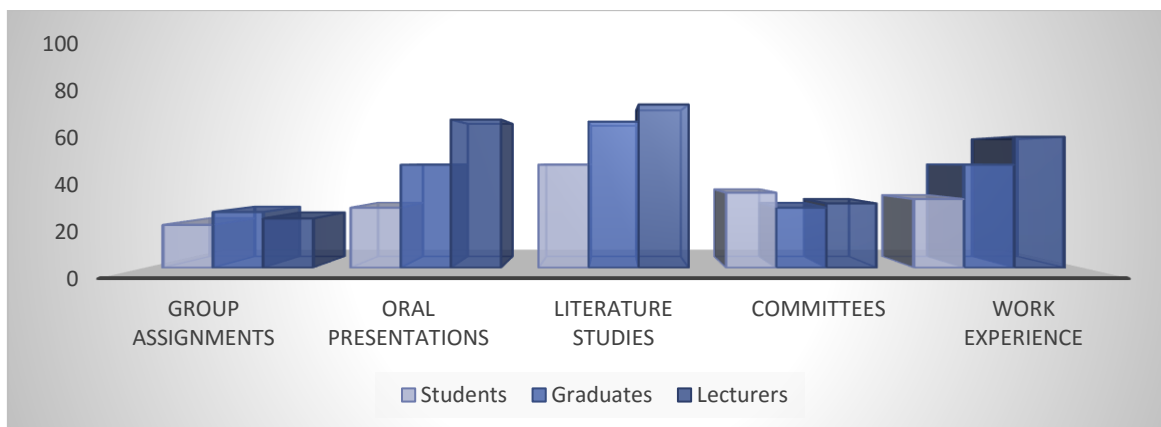


FIGURE 4.15: STRATEGIES USED TO ATTAIN ENGLISH LANGUAGE PROFICIENCY

In addition to the above-mentioned strategies that can be valuable methods to attain English language proficiency, additional methods emerged from the open-ended questions (Table 4.44).

TABLE 4.44: ADDITIONAL STRATEGIES TO ATTAIN ENGLISH LANGUAGE PROFICIENCY SKILLS
(Table continues on next page)

THEME	CATEGORY	QUOTE
Students		
Personal	Informal communication	Talking to English speaking people Kommunikasie met engelse mense om my [communicate with English speaking people] In plekke te wees waar die mense net Engels verstaan, dwing mens om te verbeter [To be in places where people only understands English, will force people to improve]
	Family	My mother is English-speaking I've spoken English since a child I grew up with English family Parents I have been able to speak English and Afrikaans fluent since before I went to school
	Travelling	Traveling Interacting with foreigners, Traveling
Education	School	School (x4) English school from grade 1 to Matric English school (x2)
	Doing research	Navorsing [Research]
Graduates		
Personal	Informal verbal communication	By speaking it more and more. The more you speak it, the better you get. Life partner is English Practice at home and with friends Talking to English friends and family Speaking to other students Lived in KZN and had to learn to be comfortable to speak English
	Social media	Blogging and writing articles.
	Tele-communication	Entertainment such as radio and television I pay attention to dialogue in movies and television series.
	Reading	Entertainment such as reading I also read English literature often.

THEME	CATEGORY	QUOTE
		reading Reading is very important
	Writing	...and email
	Travelling	Most of my English was improved by travelling for business trips
Workplace		...when I started my first full time job after graduating. Full time job I've worked at Truworthis where I had to speak English with my co-workers and customers I worked as a waitress at one of South Africa's best wine Estate In my three years of working at Spitz & Edcon, my English improved a lot! ...you pick it up very fast in the corporate world again. ...socializing with English colleagues is what made me most comfortable
Education	School	In School... Primary and High school
	English course	Attending a Feature Writing Short Course in English
	Assisting others	I translated much of the contents of lectures to an English friend as we didn't have a translator in class.
	Independent learning	Individual assignments
Lecturers		
Personal	Using the language	By using the language
	Informal communication	Any communication with English-speaking persons Having an opportunity to speak English with friends
	Reading	Reading any (good standard) English texts Reading, at home and at school,
Education	English course	English communication course Maybe English as a subject

The themes *personal* and *education* were again present in findings from the three sample groups. Students indicated that informal conversation, family as well as travelling could play a vital role in developing English skills. Graduates agreed that informal conversation and travelling enhances English skills, and added that social media ("Blogging and writing articles"), tele-communication ("radio and television", "...dialogue in movies and television series") as well as reading and writing could enhance their English. Lecturers said that the language must be used and supported the fact that informal communication and reading could be beneficial.

Furthermore, *education* emerged as a theme. Students indicated that English at school level as well as doing research can be valuable to enhance English skills. Graduates agreed that English in schools plays a role and also added that taking an English course, assisting English friends in class as well as independent learning where a student is forced to work alone on an assignment may contribute to enhancing English skills. Lecturers also indicated that taking an English course can be beneficial for students. Graduates additionally pointed

out that the *workplace* often forces employees to speak English and it improves one's English skills.

4.5.1.3 Information, communication and technology (ICT) skills

Students (57.14%) and graduates (50.50%) indicated that group assignments were the best manner in which to teach ICT skills. Lecturers on the other hand gave group assignments the second highest score (38.46%). A total of 46.15% of lecturers felt that work experience was the best method to gain ICT skills. This is in contrast to students who gave work experience the lowest score (19.78%) for teaching ICT skills. This might be due to ignorance on the part of students since the other sample groups have more experience in the work environment. Results were, however, distributed across all five methods and received relatively lower scores in comparison to other skills (Figure 4.16).

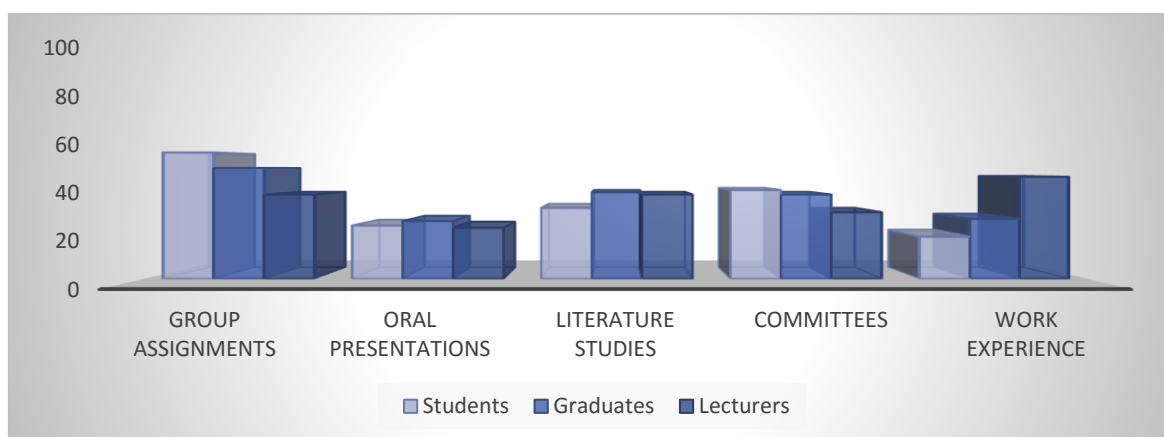


FIGURE 4.16: STRATEGIES USED TO ATTAIN ICT SKILLS

Open-ended questions revealed additional methods to attain ICT skills. Similar to previous findings, the two themes *personal* and *education* emerged at all three sample groups (Table 4.45).

TABLE 4.45: ADDITIONAL STRATEGIES TO ATTAIN ICT SKILLS
(Table continues on next page)

THEME	CATEGORY	QUOTE
Students		
Personal	Interest	Personal technology interests Teaching myself (x2) Personal interest
Education	Courses	Computer classes We had a subject that taught us
	Individual assignments	Individual assignments Self-study
	School	School work High school subject

THEME	CATEGORY	QUOTE
		Class was provided in school as well as Varsity College School subjects
Graduates		
Personal	Social media	Blogging and writing articles.
	Family	Mother Stimulation from parents who are technologically efficient.
	Interests	Personal interest in computers from a very young age.
	Regular use	Using ICT resources on a daily basis
Education	Courses	Attending IT courses (x2) Compulsory programs Computer Application. Computer education Courses Excel course Short Courses in Microsoft Office Courses in ICT skills ICT skills subject
	Assignments Individual assignments	Doing assignments Assignments for modules Assignments at universities Regular individual assignments
	School	Technology as subject in high school In high school (2 Counts) Primary and High school Primary school
Workplace	Work experience	Full time job
	Assignments and tasks	Assignments and proposals in the workplace
Other		We really did not touch on this a lot during my course of study - giving presentations at university & the expectations in the workplace are worlds apart. Even if I have the research correct the executions & expectation is much higher.
Lecturers		
Personal	Regular use	By using a computer. Practice makes perfect! By using the skills from a young age Social use of technology Exposure to electronic media
Education	Assignments	Other assignments Practical reports This is a skill you learn as you practice - therefore individual tasks will probably encourage learning more
	Individual assignments	Individual assignments
	Computer School	Computer-based assignments At school

For the theme, *personal*, the category "interest" emerged from student and graduate findings. Respondents said that having a personal interest in computers will increase the development of ICT skills. Other categories found in findings from graduates included social media, family and regular use. Graduates indicated that the regular use of blogs, family

members who use technology as well as using ICT resources on a daily basis will help increase the development of these skills. Lecturers supported the fact that regular use of a computer will increase ICT skills ("By using a computer. Practice makes perfect!").

The theme *education* also revealed a variety of categories. These were courses, individual assignments and school (students), courses, assignments and school (graduates), and assignments and school (lecturers). Respondents said that taking extra courses, for example, "computer classes" or "courses in ICT skills", will enhance the development of these skills. A variety of assignments including "individual assignments" as well as "computer-based" assignments can be helpful. Respondents also indicated that these skills are learned at school, again highlighting the important role schools play in the development of employability skills.

Graduate findings again revealed a third theme, *workplace*, and respondents indicated that work experience and assignments and tasks done in the workplace could enhance ICT skills. Additional comments emerged and were placed under the theme *other*. One respondent explained that the expectation of the university and the workplace differs greatly, and the focus on ICT skills at university is not enough.

4.5.1.4 *Interpersonal skills*

Students (67.03%), graduates (68.32%) and lecturers (84.62%) indicated that group assignments, followed by being part of committees and work experience are the best strategies to attain interpersonal skills (Figure 4.17). Although 31.87% of students and 22.77% graduates also indicated that oral presentations can contribute to interpersonal skills, only 7.69% of lecturers indicated this to be true. Literature studies were not a preferred method to teach the above.

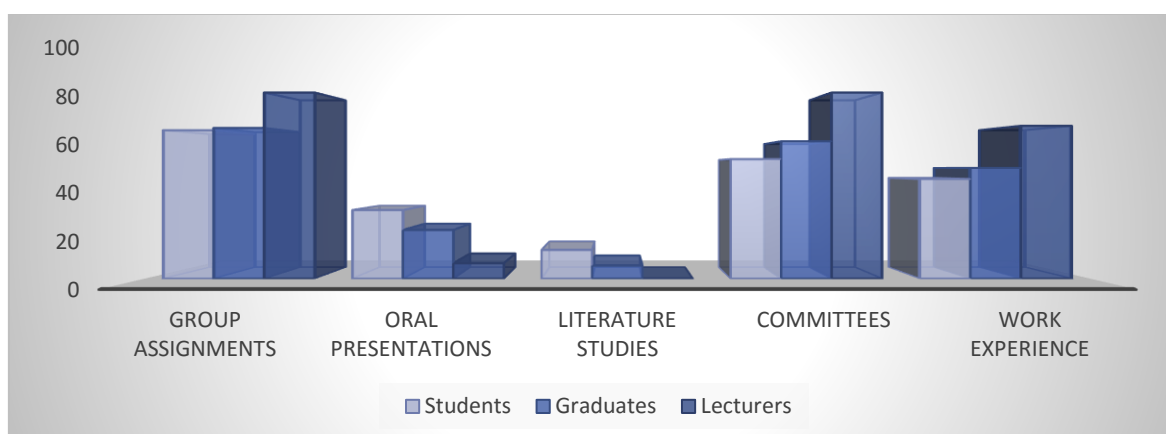


FIGURE 4.17: STRATEGIES USED TO ATTAIN INTERPERSONAL SKILLS

As seen in Table 4.46, respondents explained in an open-ended question that interpersonal skills are not developed through the above-mentioned strategies only.

TABLE 4.46: ADDITIONAL STRATEGIES TO ATTAIN INTERPERSONAL SKILLS

THEME	CATEGORY	QUOTE
Students		
Personal		How I am
Education		Individual Assignments
Graduates		
Personal	Interaction	Group of friends, your family, your study environment.
	Life experience	Life experiences
Education		Attending workshops on interpersonal mastery.
Other	Not teachable	You can't teach interpersonal skills - this is literally personality
Lecturers		
Personal		Home
Education		At school

The themes *personal* and *education* were found in all the sample group findings. Respondents indicated that interpersonal skills are a personal characteristic, learned through interaction with friends and family, life experiences and at one's home. They also indicated that it can be developed by education through "attending workshops", and schools also play a role. Graduate findings also revealed the theme *other* where respondents said that interpersonal skills are not teachable since these are personality traits.

4.5.1.5 Teamwork skills

Similar to interpersonal skills, group assignments, being part of committees as well as work experience were indicated as the best methods to attain teamwork skills (Figure 4.18). Although a small number of respondents indicated that oral presentations and literature studies could be used, these were noted to be the least favoured ways to teach teamwork skills.

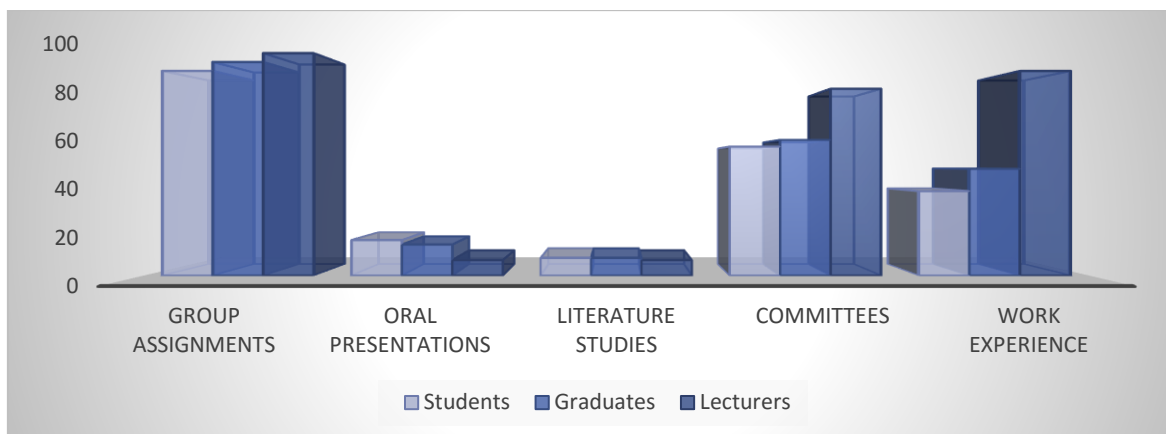


FIGURE 4.18: STRATEGIES USED TO ATTAIN TEAMWORK SKILLS

A few additional comments regarding the teaching of teamwork skills included the two themes *education* and *workplace* (Table 4.47).

TABLE 4.47: ADDITIONAL STRATEGIES TO ATTAIN TEAMWORK SKILLS

THEME	CATEGORY	QUOTE
Students		
Education	University	Universiteit (University)
	"Practicals"	Practicals
Graduates		
Workplace		During my first job after graduating. In the work place On the job taught me more
Education	Working across faculties	Work as team across faculties; need to work with "financial managers" to be and "HR managers"; "project managers" to be; everyone involved in real work environments. If a student does not continue their studies they have "resigned" then someone else in that group needs to know how to perform their duties. In real life that is expected of you, why not teach us how to do it?
Lecturers - no comments		

Students indicated that teamwork skills can be taught at university, through "practicals". Graduates added to this by stating that a good method to use is to work across faculties and create an environment that simulates the real work environment. Graduates also said that the *workplace* teaches employees how to be an efficient team player. No comments regarding additional methods to teach teamwork skills were given by lecturers.

4.5.1.6 Leadership skills

Group assignments, committee participation and work experience once more stood out as good methods to attain leadership skills (Figure 4.19). However, only 23.08% of students indicated that work experience enhances leadership skills. Although 23.08% of lecturers felt that oral presentations could contribute towards leadership skills, oral presentations and

literature studies were not found to be the preferred manner in which to increase leadership skills.

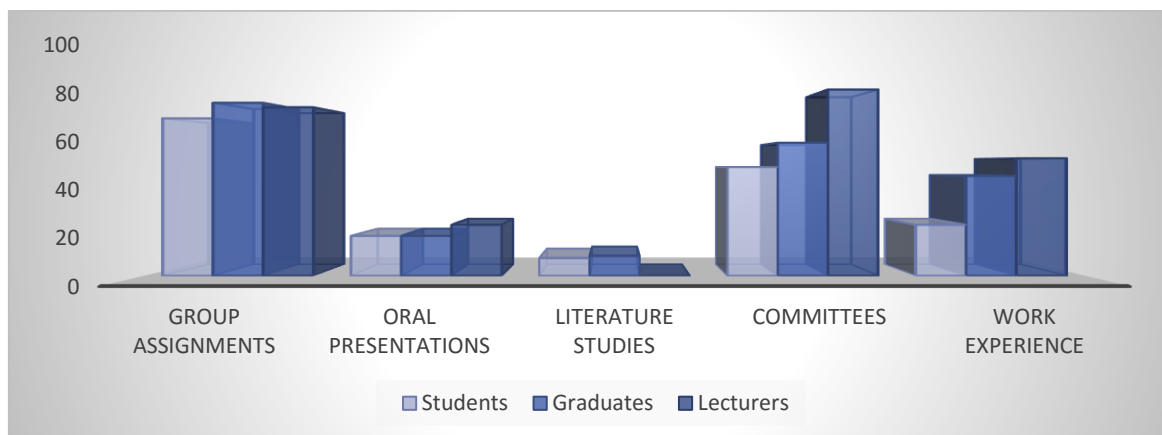


FIGURE 4.19: STRATEGIES USED TO ATTAIN LEADERSHIP SKILLS

Some additional strategies emerged from the open-ended questions regarding leadership skills (Table 4.48).

TABLE 4.48: ADDITIONAL STRATEGIES TO ATTAIN LEADERSHIP SKILLS

THEME	CATEGORY	QUOTE
Students		
Personal	Up bringing	How and what I have been taught and learnt in life
	Personality	Some are natural leaders
Graduates		
Workplace		During my first job after graduating. Full time job In the Workplace (x2) While working as manager at guesthouse
Personal		I believe that natural leaders are born, others are natural followers
Sport		Playing in sports teams
Other	Not teachable	Leadership skills come naturally, it's not something you can be taught
Lecturers		
Personal		Personality trait
Education		At school

Student findings revealed the theme *personal*, graduate findings included the themes *workplace*, *personal*, *sport* and *other*, and lecturer themes included *personal* and *education*. Students felt that it was part of their upbringing "How and what I have been taught and learnt in life" and some students, graduates and lecturers also believed that leadership is a personality trait "Some are natural leaders". Graduates indicated that the workplace is vital to teach leadership skills, and it can also be learned by being part of a sports team. Some graduates felt that leadership skills are not something you can teach somebody, but as

stated previously, it is a personal trait "Leadership skills come naturally, it's not something you can be taught". Contradicting this, some lecturers indicated that leadership can be taught at schools.

4.5.1.7 Problem solving skills

Results indicated that all three sample groups favour group assignments to enhance problem solving skills (Figure 4.20). Lecturers indicated that work experience (76.92%) and being part of a committee (69.23%) was also a good method to enhance the above. Graduates also said that work experience (55.45%) and committee participation (43.56%) was a good method while also including literature studies (47.52%) as a good method to improve problem solving skills. In addition, 49.45% of students said that being part of a committee is a good method and 35.16% said work experience will enhance these skills. Oral presentations scored the lowest and was not indicated as an efficient method to teach problem solving skills.

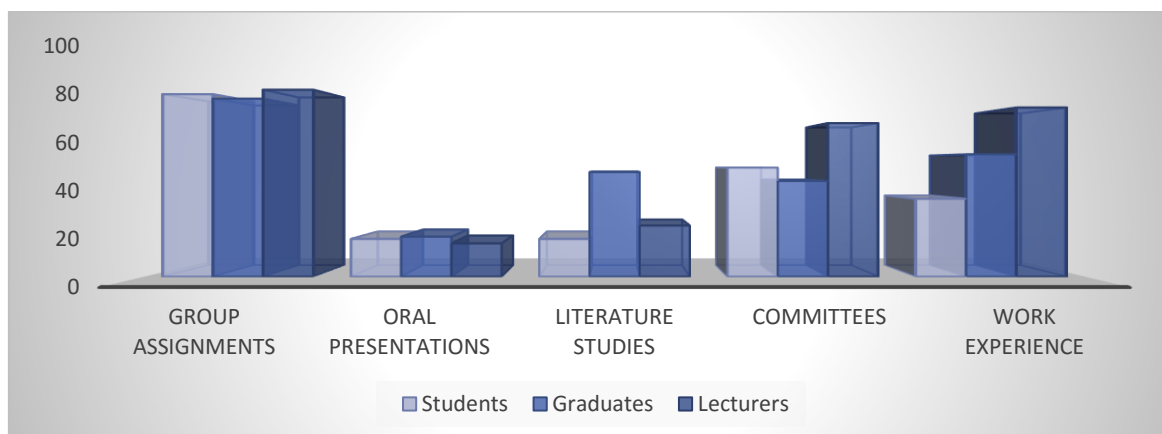


FIGURE 4.20: STRATEGIES USED TO ATTAIN PROBLEM SOLVING SKILLS

Findings from open-ended questions included the themes *personal* and *education* by students and lecturers, and *workplace* and *sport* by graduates (Table 4.49).

TABLE 4.49: ADDITIONAL STRATEGIES TO ATTAIN PROBLEM SOLVING SKILLS
(Table continues on next page)

THEME	CATEGORY	QUOTE
Students		
Personal		Solving problems at home when something wasn't working
Education		Assignments
Graduates		
Workplace	Work experience	Where if you have work experience problem solving skills you would know how to manage the situation...

THEME	CATEGORY	QUOTE
		Being a manager During my first job after graduating On the job, day-to-day Only by experience When I started working full time job
	At university	Facilitating and practical lab assistant
Sport		Playing in sports teams
Lecturers		
Personal		Parents
Education		Other assignments

Findings revealed that solving problems in your personal life will help develop problem solving skills as well as solving problems as part of assignments. Graduates indicated that problem solving skills are learned in the work environment through work experience and also indicated that doing a part time job at the university, for example, helping with facilitating and “practicals” could improve problem solving skills. Lastly, graduates also said that being part of sports teams could help increase problem solving skills.

4.5.1.8 *Adaptability skills*

More than 40% of all respondents from the three sample groups indicated that group assignments, committee participation and work experience were good methods to enhance adaptability skills (Figure 4.21). Literature studies received the lowest scores followed by oral presentations.

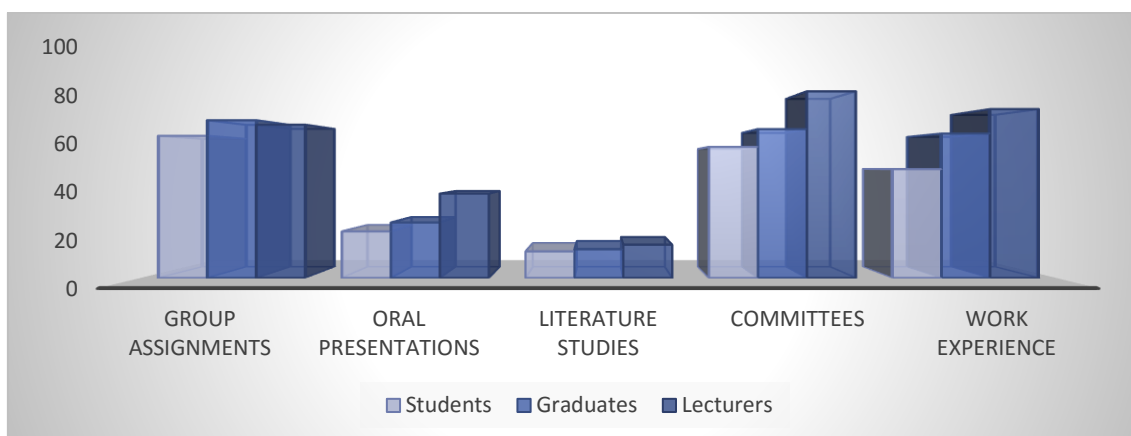


FIGURE 4.21: STRATEGIES USED TO ATTAIN ADAPTABILITY SKILLS

No additional methods to teach adaptability skills were revealed from student findings; however, the themes *personal*, *workplace* and *sport* were seen from graduate findings, and *personal* and *education* from lecturers (Table 4.50).

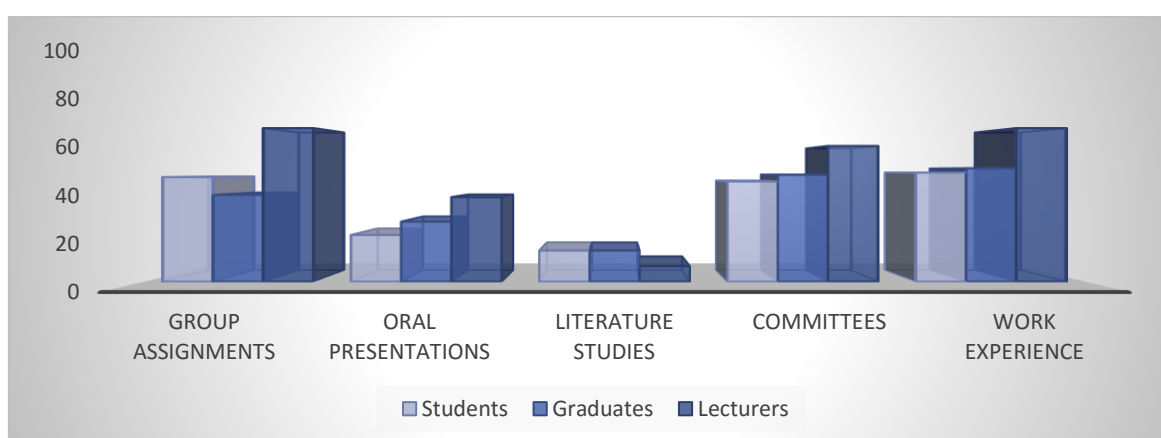
TABLE 4.50: ADDITIONAL STRATEGIES TO ATTAIN ADAPTABILITY SKILLS

THEME	CATEGORY	QUOTE
Students (No additional methods)		
Graduates		
Personal		Changes in personal life Life experiences
Workplace		During my first job after graduating My specific line of work means not one day is the same. I spend a lot of time travelling, meeting new people and having to adapt to different settings.
Sport		Playing in sports teams
Lecturers		
Personal		At home Home
Education	at school

Graduates said that one's personal life and experiences increase adaptability skills. They also said that adaptability skills are learned through work experience as well as being part of a sports team. Lecturers indicated that adaptability skills are learned at home and at school.

4.5.1.9 Risk taking skills

Literature studies were the least preferable method followed by oral presentations to attain risk taking skills (Figure 4.22). Although ratings were lower than those seen in previous skill's results, group assignments, committee participation and work experience received the highest scores.

**FIGURE 4.22: STRATEGIES USED TO ATTAIN RISK TAKING SKILLS**

Students did not write any additional comments regarding the teaching of risk taking skills. Themes from graduates included *personal*, *workplace*, *experience* and *sport*, and lecturer themes included *personal* and *education* (Table 4.51).

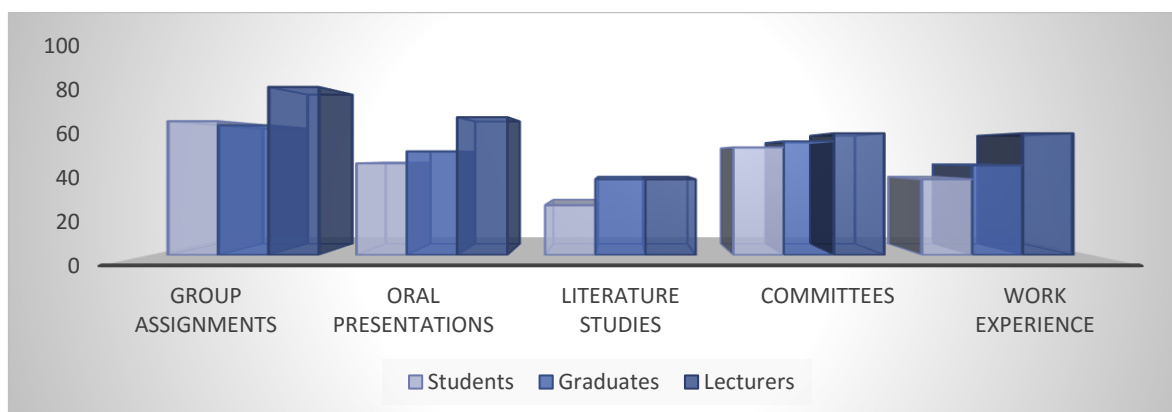
TABLE 4.51: ADDITIONAL STRATEGIES TO ATTAIN RISK TAKING SKILLS

THEME	CATEGORY	QUOTE
Students (No additional comments)		
Graduates		
Personal	Growing up	as I grew up
	Travelling	Travelling
Workplace		Being in the industry During my first job after graduating. Full time job / In the job / Current job
Experience		Experience, experience (not just job related). Start with something small like wearing something that you have never worn before. Dye your hair!!! It all starts from within. Having the confidence to take risks, start with yourself and confidence.
Sport		By playing sport
Lecturers		
Personal		Life Personality trait Home
Education		Practical assignments in "safe environment"

Graduates indicated that risk taking is considered a personal trait learned by growing up, and it is also enhanced by travelling. They also said that the workplace helps to develop risk taking skills. The theme *experience*, indicated that experience in any kind of risk, not only job-related, will increase one's risk taking skills. Furthermore, graduates mentioned that "playing sport" could increase this skill. Lecturers said that risk taking is a "personality trait" learned throughout life and at home and it can be enhanced by practical assignments.

4.5.1.10 Creativity skills

Although literature studies were again the method which received the lowest ratings, more than 25% of respondents in all the sample groups said it was a good way to enhance creativity (Figure 4.23). Respondents' ratings were relatively evenly distributed between the four other methods, with group assignments receiving the highest score.

**FIGURE 4.23: STRATEGIES USED TO ATTAIN CREATIVITY SKILLS**

Additional comments by students led to three themes including *personal*, *education* and *other* (Table 4.52). They indicated that creativity skills could be increased by different hobbies done at home as well as at school through art subjects. The theme *other* also emerged and students indicated that creativity comes naturally and is increased by doing creative things (“It is a natural thing and the more creative work you do the more you learn”).

TABLE 4.52: ADDITIONAL STRATEGIES TO ATTAIN CREATIVITY SKILLS

THEME	CATEGORY	QUOTE
Students		
Personal		Hobbies Making things at home
Education	School	Visual Art (x2) as subject in High School
Other		It is a natural thing and the more creative work you do the more you learn.
Graduates		
Personal	Talent	Own talents
	Social media and the internet	Always been creative, but for inspiration I go to Google, Pinterest, etc. Blogging and writing articles.
	Hobbies	Doing my own creative projects at home and by creative writing. Personal interest in arts and creativity.
	Experience	Life experiences as I grew up
Education	Workshops and courses	Attending creative workshops to learn more skills.
	Assignments	Fashion and Interior assignment, Practical tasks
Workplace		Current job (x3) During my first job after graduating.
Other	Not teachable	Creativity skills can be more natural for others, but it is something that you have naturally or you can teach yourself I believe that creativity is something that cannot really be taught. ...creativity is not something you can be taught.
Lecturers		
Education	Courses	In various courses that is taken in the course
	Individual assignments	Practical individual assignments - you will not be creative if group members already have a plan. Your best creativity will surface once you are under pressure and there is no group

Graduate themes included *personal*, *education*, *workplace* and *other*. The theme *personal* presented different categories as graduates indicated that creativity is a talent which could be enhanced by social media and the internet, doing different hobbies, as well as through experience. Graduates also said that it could be stimulated through *education* and specifically referred to workshops and courses and doing creative assignments. Furthermore, they mentioned that the *workplace* teaches a person to be creative and the theme *other* emerged where respondents indicated that creativity is not something that can

be taught. Only one theme was constructed from lecturer findings, namely *education*. Lecturers said that creativity can be taught in courses and by doing individual assignments.

4.5.1.11 Time management skills

With the exception of the fewer than 30% of students who rated oral presentations and literature studies as a good method, more than 40% of all respondents said that each method could be used to enhance time management skills (Figure 4.24). Being part of a committee received the overall highest score from all three sample groups.

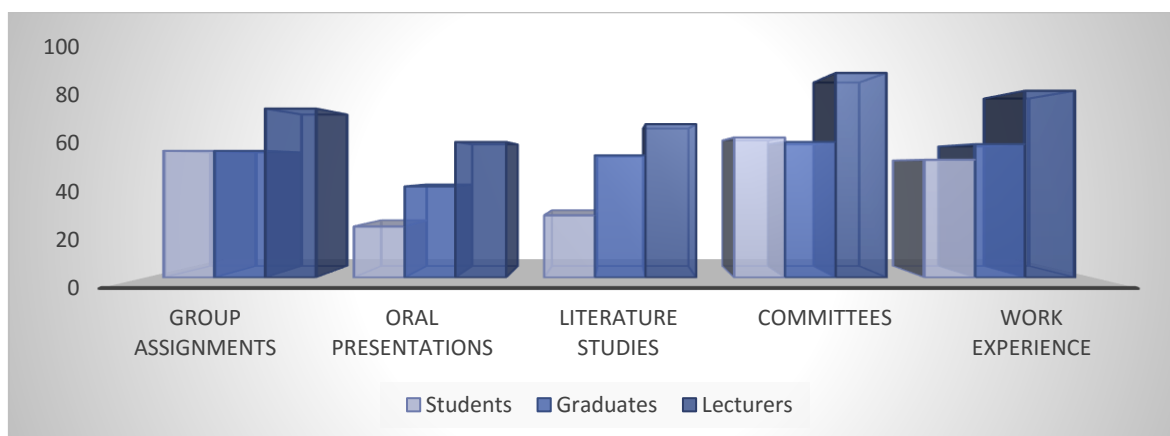


FIGURE 4.24: STRATEGIES USED TO ATTAIN TIME MANAGEMENT SKILLS

Table 4.53 contains the findings of the open-ended questions regarding other methods which enhance time management skills.

TABLE 4.53: ADDITIONAL STRATEGIES TO ATTAIN TIME MANAGEMENT SKILLS
(Table continues on next page)

THEME	CATEGORY	QUOTE
Students		
Education		Universiteit [University] Managing exams and assignments
Graduates		
Personal	Social media	Blogging and writing articles
	Family	My mom taught me my organizational skills
	Experience	This I have learned by experience, no university teaches you the importance of planning. You learn how to manage yourself with time and has you get more wise As I grew up
Education	Studying	Time management was learnt whilst studying. While studying.
	Variety of assignments	Students must learn how to manage more than one task at a time, it is important to give smaller assignments whilst having bigger assignment, they must learn to see the bigger picture that you cannot complain of too much to do when employed you just have to do it.

THEME	CATEGORY	QUOTE
	Writing tests	Tests
Workplace		During my first job after graduating In the Workplace My job
Lecturers		
Personal		Mother Self-taught skill

Only one theme (*education*) was constructed for student responses regarding the teaching of time management skills. Students indicated that organisation and time management skills are learned at university and specifically by “managing exams and assignments”. Themes constructed for graduate findings included *personal*, *education* and *workplace*. Respondents said that these skills are attained on a personal level through social media (“blogging and writing articles”), family (“my mom taught me my organizational skills”) and experience (“...I have learned by experience...”). They also said that it can be learned by means of *education* (“while studying”) especially through a variety of assignments and writing tests. Lastly, graduates also said that the *workplace* enhances time management skills. Lecturer findings revealed one theme (*personal*) and respondents indicated that time management skills are personally attained.

4.5.1.12 Summary of strategies to attain employability skills

Group assignments were chosen as the best method to enhance the majority of employability skills followed by work experience and being part of committees. There were some skills which could be improved through oral presentations and literature studies, indicating that a variety of methods is needed to enhance employability skills in general. Additional strategies to attain employability skills emerged through an open question. Three main themes surfaced across the different employability skills namely: *personal*, *education* and *the workplace*. The theme *personal* included having informal conversations, interacting with friends and family, travelling and experiences, reading and writing, making use of social media or tele-communication, one’s personal interest and personality, hobbies, talent and upbringing. The theme *education* mostly included the contribution of school, being at university, taking different courses, doing a variety of assignments, class activities and “practicals” as well as working across faculties. Results also indicated that *the workplace* enhances the attainment of employability skills since students get experience and do a variety of tasks and assignments in the work environment. There were also some respondents who indicated that skills could be enhanced by being part of a sports team. The qualitative phase of this study provides a more in-depth discussion regarding the teaching and assessment of employability skills and will be discussed in Chapter 5.

4.6 CONCLUDING DISCUSSION

This chapter provided an overview of the results of the quantitative phase of this study regarding the importance of and competency in different employability skills. A total of 266 respondents were included in this study comprising of 91 students, 101 graduates, 13 lecturers and 61 employers. An overview of the demographic description of the respondents was given followed by a description of each sample group (cf. 4.3).

Results from Section B of the questionnaire survey indicated which employability skills are important for career success, as well as how competent newly employed consumer science graduates are regarding these skills. All 11 employability skills received high ratings indicating the importance of these skills. However, results regarding how competent graduates are regarding the different skills varied. Students rated their competency the highest followed by graduates. Lecturers and employers gave lower ratings than students and graduates. Respondents were also asked to indicate which other skills are needed for career success. Although a lot of skills surfaced, it was found that the skills identified were already included in the 11 identified employability skills of this study. However, cultural awareness of consumer science graduates stood out as a necessity for the work environment and should be incorporated into these skills.

The questionnaire also included questions regarding the strategies to attain employability skills. Results revealed that employability skills could be enhanced through education and indicated that group assignments are a good method to use in class. It can also be enhanced through personal and work experience.

The qualitative phase of the study focused on the teaching and assessment of employability skills and a more in-depth discussion regarding the strategies to enhance employability skills will be provided in the next chapter. Chapter 5 will therefore provide a description and discussion on the findings of the focus group discussions done during the second phase of this study.

CHAPTER 5

DESCRIPTION AND DISCUSSION ON THE FINDINGS OF THE FOCUS GROUP DISCUSSIONS

5.1 INTRODUCTION

The findings of the focus group discussions will be discussed in this chapter. The aim of the focus group discussions was to achieve research objective four and five (cf. 1.4.3) namely to describe the teaching and assessment strategies consumer science lecturers use to ensure that employability skills are attained by consumer science students. Results from the questionnaire survey discussed in Chapter 4 focused on the employability skills consumer science employers require from employees and the employability skills consumer science graduates have after graduation. The identified skills were discussed in two focus group discussions with consumer science lecturers to add in-depth information regarding the teaching and assessment of the identified skills (cf. 3.3.3).

5.2 THE FOCUS GROUP DISCUSSION

Results from the quantitative phase of this study determined which employability skills graduates must obtain during their studies to be successful in the work environment. Results were used to construct an interview schedule (cf. Appendix I) for the focus group discussions comprising the second phase of the study. During the two focus group discussions participants had the opportunity to discuss how each skill could be taught to students as well as how these skills could be assessed to ensure that students have acquired these skills. One focus group was held on each campus where the study was conducted (cf. 3.3.3), namely the University of the Free State (UFS), Bloemfontein campus and the North-West University (NWU), Potchefstroom campus.

The focus group discussions took place in the consumer science staff room on each campus ensuring easy access and comfort for participants (cf. 3.3.3.5). The duration of the contact session including the meet and greet was two and a half hours, and therefore light refreshments and drinks were offered to participants.

5.2.1 Focus group discussion participants

As explained in Chapter 3 (cf. 3.3.3.2) a good functioning framework is best constructed by getting feedback from the individuals who will use the framework. Furthermore, consumer

science academic personnel are the individuals responsible for teaching students employability skills. Therefore, they were suitable candidates to include in the focus group discussions. Permission was obtained from both campuses to include their consumer science staff members in the study (cf. 3.5.1). This was the same consumer science academic personnel who were invited to take part in the quantitative phase of this study. The researcher contacted the secretary of the Consumer Science departments on both campuses to determine a time suitable for staff members and to confirm the use of the staff room. After deciding on a suitable time, the researcher sent an e-mail to all the consumer science academic staff members inviting them to take part in the study (cf. Appendix G). This included 10 possible participants from the UFS and eight possible participants from the NWU. They were asked to reply to the e-mail if they were willing to take part in the focus group discussion. Participants who indicated that they were willing to take part in the study received an e-mail with the interview schedule (cf. Appendix I) as well as a copy of the consent form (cf. Appendix H). They did not need to bring any of the above to the focus group discussion since everybody had received a hard copy of the interview schedule during the focus group discussion as well as a consent form which they had to sign before the discussion could take place. Six participants formed part of the focus group discussion at the UFS and seven participants were included in the NWU focus group discussion.

5.2.2 The focus group discussion facilitator and observer

Since the researcher is also a consumer science academic staff member at the NWU, an independent facilitator was used to guide the focus group discussions. The researcher acted as an assistant, observing the focus groups and taking field notes, without taking part in the discussions (cf. 3.3.3.5). The same facilitator was used for both focus group discussions. The facilitator is a NWU Health Science education staff member with extensive experience in conducting focus group discussions. She is also a UFS Health Professions Education PhD co-study leader for other PhD students and a former Consumer Science educator, which helped her to understand the subject field. She was friendly, prepared and had good people skills, which helped her to guide the discussion without being biased or leading participants to certain answers (cf. 3.3.3.5).

5.2.3 The focus group discussion setting

Since the focus groups took place in a setting familiar to participants, it was convenient and participants were comfortable (cf. 3.3.3.5). Each focus group included participants from the same university. Therefore, they were familiar with each other, discussions proceeded smoothly and participants elaborated on their answers (cf. 3.3.3.5). Participants were seated around a table with comfortable seats. Refreshments with coffee and tea were given before the discussion to allow everybody the opportunity to relax and meet the facilitator. Water and juice were available during the discussion as well.

Before each focus group discussion started, the facilitator thanked everybody for attending and then asked permission to use a tape recorder during the session. Everybody agreed where after she went through the consent form with them and obtained written consent from everybody. Stickers were available to indicate any name or number to be used during the focus group when referring to one another. This made it easier for the facilitator to communicate with the participants. Participants were assured that any names used during the discussion would be deleted from the manuscripts. The facilitator also informed participants about the time schedule. The session was scheduled for two hours and everybody agreed that they were comfortable with the duration.

Participants were reminded that there are no wrong or right answers and the facilitator made sure everybody was comfortable. She also explained that she will only guide the discussion and encouraged them to speak freely since they are regarded as experts in the field.

5.2.4 Data collection during focus group discussions

Following the welcoming and introduction of the discussion, the facilitator explained the purpose of the study to the participants. It was also explained that 11 skills would be discussed during the session and participants were motivated to discuss how each skill can be taught to students and also how lecturers can assess these skills. Participants were permitted to answer in English or Afrikaans, making sure they were comfortable and again motivating them to elaborate on their answers. The facilitator gave a quick overview of each skill to make sure the participants understood the meaning of each skill where after the discussion began using the interview schedule (cf. Appendix I). The facilitator asked how participants think different skills can be taught and assessed and started with the first

skill. Each skill was discussed in the same manner. After the discussion of the last skill, the facilitator gave the opportunity for any last comments. This led to a summary of the teaching and assessment of employability skills in general during both group discussions. Subsequently, participants were thanked and the discussion was ended.

5.2.5 Analysis of focus group discussions

After each focus group discussion, the data were transcribed by the researcher. This was done verbatim and double-checked to make sure that it was a true reflection of the dialogue. In some instances, participants answered some of the questions in Afrikaans, and the researcher translated it into English. After the discussion was transcribed and translated where needed, the transcripts were e-mailed to all the participants for member checking (cf. 3.4.3). All the participants received the transcripts, and no one made any comments; therefore, indicating that they were satisfied with the transcripts.

Data analysis was done in the same manner as the data analysis of open-ended questions in Chapter 4 (cf. 4.2.1.3). Emerging trends were identified and coding was done using descriptive words. This resulted in the identification of themes and categories. Where applicable, categories were further divided into sub-categories. The findings of the focus group discussions will be discussed in the following section. Complete data analysis tables, including quotes by participants are included in Appendix K.

5.3 FOCUS GROUP DISCUSSION FINDINGS

Eleven employability skills were discussed in the focus groups. The facilitator guided the discussion using the interview schedule (cf. Appendix I), requesting participants to explain how each skill can be taught and assessed to ensure that students have mastered each skill. Findings from the focus group discussions for each skill will now be described. Two focus group discussions took place labelled G1 and G2 respectively (Appendix L). Participants in group one (G1) were numbered one to six (1-6) and participants from group two (G2) were numbered one to seven (1-7). For example, a quote from participant four from group one will be labelled [G1.4].

5.3.1 Communication skills

Four themes emerged regarding the teaching and assessment of communication skills namely *lecturer's role*, *positioning of modules in curriculum*, *teaching and assessment strategies* and *factors inhibiting the promotion of communication skills* (Table 5.1). Each

theme was further divided into categories and for some categories, various sub-categories emerged.

TABLE 5.1: TEACHING AND ASSESSMENT OF COMMUNICATION SKILLS

THEME	CATEGORY	SUB-CATEGORY
Lecturer's role	Responsibility	Not lecturer's responsibility
		No assessment
		Full curriculum
		Schools responsibility
	Consistency in applying standards for assessment	Must be firm and consistent
		Referencing
		Technical
		Language
	Guidance	Only accept precise/exact answers
		Assignments
		Writing professional e-mails
		Revising vocabulary
Positioning of modules in curriculum	Compulsory module	
	Elective module	
	Add components into existing modules	
Teaching and assessment strategies	Improving written communication skills	Written assignments
		Structured reports
		Literature studies
		Assessment criteria
	Improving verbal communication by presenting in class	Presentations
		Case studies
		Simulation groups
		Assessment criteria (voice, language, grammar, posture)
	Improving verbal communication through teaching methods	Promote communication in class
		Communicating during "practicals"
		Buzz groups
		Real life scenarios
Factors inhibiting the promotion of communication skills	Large classes	
	Time	
	Group work	
	Technology	

5.3.1.1 Theme 1: Lecturer's role

The theme lecturer's role generated the categories responsibility, consistency in applying standards for assessment and guidance. Participants indicated that it is not the lecturer's responsibility to teach students the necessary communication skills. Although they are willing to help students develop communication skills, they do not want to assess these skills ("...I can see the benefit of developing it, but I really do not want to assess it..."[G1.6]). The full curriculum does not allow time to spend on it ("We do not have time in the curriculum to spend time on that, we should concentrate on the content of the

curriculum”[G2.4]) and they feel that the responsibility rests with secondary education (high schools) to ensure students have already attained the necessary communication skills. However, participants said that when they do assess communication skills, it is important that lecturers are firm and consistent; this applies to referencing as well as technical and language issues. They should also only accept precise/exact answers from students. Participants pointed out that it is the lecturer’s role to provide guidance to students. This can be done during assignments but also by guiding them to write professional e-mails and revising their vocabulary in order to enhance their communication skills.

5.3.1.2 *Theme 2: Positioning of modules in curriculum*

Participants indicated that compulsory modules could be included in the curriculum to ensure that the correct communication skills are attained by students (“...it will be great but we don’t have a compulsory module”[G1.6]). Participants also indicated that elective modules could be offered to students where they can choose additional modules to enhance certain communication skills. It was also suggested that the needed communication skills could be divided into different components and added to current modules to make sure that students attain satisfactory communication skills by the time they graduate.

5.3.1.3 *Theme 3: Teaching and assessment strategies*

Findings indicated that teaching and assessment strategies can enhance communication skills. Written communication can be enhanced by expecting students to submit written assignments, structured reports, literature studies and by providing them with assessment criteria for the above. Verbal communication can be enhanced when students do presentations, case studies as well as by performing simulation groups to the class and assigning assessment criteria to these as well. Verbal communication can further be improved by teaching strategies including the promotion of communication in class (“...encourage them to speak in class also and encourage them to have conversations with each other...”[G2.4]), communicating during “practicals”, making use of buzz groups in class as well as creating real life scenarios where students have the opportunity to practise their verbal communication skills.

5.3.1.4 *Theme 4: Factors inhibiting the promotion of communication skills*

The last theme included factors which inhibit the promotion of communication skills including the challenges as a result of teaching large classes ("Large classes make it difficult to really pay attention to it"[G2.F]) as well as time constraints ("...we don't have time to do things over and over to ensure that everyone gets on that level..."[G2.7]). Another factor is group work. Some students rely on others to do all the work ("...there is always passengers who rides along and who gets through the system with the help of their friends."[G2.7]). Lastly, technology may prevent students' development of communication skills ("...people are losing the ability to really talk to each other"[G2.6]).

5.3.2 English language proficiency

Two themes regarding the enhancement of students' English proficiency were constructed namely using *English in practice* and *building confidence* (Table 5.2).

TABLE 5.2: TEACHING AND ASSESSMENT OF ENGLISH LANGUAGE PROFICIENCY

THEME	CATEGORY
Using English in practice	Textbooks
	Assignments
	Presentations
	Communication in class
	Diverse groups
	English friends
Building confidence	Comfortable
	Informal communication

5.3.2.1 *Theme 1: Using English in practice*

Participants indicated that student's English proficiency is enhanced with the regular use of the English language, including using English textbooks, doing assignments and presentations in English, communicating in English during class, making sure groups are diverse by not placing all the English-speaking students in one group, as well as by having English friends.

5.3.2.2 *Theme 2: Building confidence*

Findings also showed that it is important for students to be comfortable with the language as this will help build their confidence and improve their English skills. Having informal

conversations in English could contribute to students being more confident to use the language.

5.3.3 Information, communication and technology (ICT) skills

Two themes emerged for the teaching and assessment of ICT skills including *structuring the curriculum* and *assignments* (Table 5.3).

TABLE 5.3: TEACHING AND ASSESSMENT OF INFORMATION, COMMUNICATION AND TECHNOLOGY (ICT) SKILLS

THEME	CATEGORY
Structuring the curriculum	Modules (including WORD, EXCEL, PowerPoint)
	Learn basic skills during their first-year
	Interior practical
Assignments	Typed
	Electronic submissions
	E-book/ Internet
	Successful end product

5.3.3.1 Theme 1: Structuring the curriculum

Participants indicated that aspects of ICT skills must be structured into the curriculum. ICT skills can be enhanced through modules that focus on different ICT aspects, for example teaching students to work with specific computer programmes (“...basically do most of your programmes that you would use, PowerPoint, Excel, WORD”[G1.1]). They also indicated that basic ICT skills must be attained during the first year of studies in order for students to apply it during their degree (“...get baseline training and from there they have to implement their knowledge and skills throughout the second, third and fourth year.”[G1.F]). It also helps if they use programmes during “practicals”, for example interior design “practicals” which will assist them to be comfortable when confronted with other programmes in the work environment (“...it helped them to get a little more comfortable...”[G2.6]).

5.3.3.2 Theme 2: Assignments

Findings showed that expecting students to submit typed assignments electronically can improve their ICT skills. It was also found that giving students assignments to submit in the form of an e-book or a website exposes them to technology (“...make an e-book or a website to bring in the technology...”[G2.3]). Participants indicated that it is not necessarily

needed to assess students' use of ICT skills, but rather to give them assignments where they need to use ICT skills and assess the success of the end product ("...they had to have mastered the technology to be able to hand in a successful product." [G2.3]).

5.3.4 Interpersonal skills

Two themes were identified regarding the enhancement of interpersonal skills namely *teaching and assessment strategies* and *outside the curriculum* (Table 5.4).

TABLE 5.4: TEACHING AND ASSESSMENT OF INTERPERSONAL SKILLS

THEME	CATEGORY
Teaching and assessment strategies	Group work
	Roles
	Peer assessment
	Autonomy
	"Practicals" (Practical sessions)
	Increased interaction in small classes
	Discussions in class
	Practical real life scenarios
Outside the curriculum	Being a student at university

5.3.4.1 Theme 1: Teaching and assessment strategies

Findings revealed different methods that can be used in class to enhance students' interpersonal skills. Participants indicated that the use of group work ("...do a lot of group work" [G2.6]) and assigning roles to group members enhances the attainment of interpersonal skills. Giving students the opportunity to do peer assessment ("Sometimes peer assessment...I give them a list of everybody and everyone has to give a mark for everyone's contribution to the group" [G2.4]) could also contribute to their interpersonal skills. Another category that emerged was autonomy. Participants found that students' interpersonal skills develop in an environment where they can work and communicate with each other without feeling the pressure from lecturers ("...I think it helps that you give them that confidence to communicate with each other without someone constantly supervising them" [G2.4]). It was also found that working in teams during "practicals" ("...work in teams in practicals" [G1.6]), being part of small classes where there is increased interaction between students ("...in small classes you actually have to interact with everyone" [G1.F]), discussions in class, as well as exposing students to practical real life scenarios could be valuable strategies to use to develop interpersonal skills.

5.3.4.2 *Theme 2: Outside the curriculum*

The second theme indicated that interpersonal skills are not only developed in the class environment, but that being a student at university exposes a person to many opportunities where interpersonal skills can be enhanced (“...being at varsity force you to interact with other people not only in the class situation... I think that is one of the big benefits of being at varsity”[G1.4]).

5.3.5 Teamwork skills

Three themes emerged regarding strategies to enhance teamwork skills: *role play in group work*, *outcome of assignments* and *work experience* (Table 5.5).

TABLE 5.5: TEACHING AND ASSESSMENT OF TEAMWORK SKILLS

THEME	CATEGORY
Role play in group work	Ongoing assignments
	Change team members throughout
	Shorter assignments
	“Practicals”
Outcome of assignments	Evaluating the end product
	Simulation
Work experience	

5.3.5.1 *Theme 1: Role play in group work*

Participants indicated that assigning different roles to group members can enhance their teamwork skills. A good method to do this is through ongoing assignments where group members are responsible for different aspects of a large assignment (“...lengthy assignment as a group and then obviously, they have to decide who’s taking on which role...”[G1.6]) as well as changing team members throughout the process to give members the opportunity to work with other members and have different roles. Small or shorter assignments can also be done in class where each member receives a role and has to report back during the same contact session (“...one person in the group has to report back, one person must write down, the other two must search for the information...”[G2.4]). During “practicals”/practical sessions, students also get the opportunity to work in groups where different roles can be assigned to different members.

5.3.5.2 *Theme 2: Outcome of assignments*

It was noted that assessment does not have to focus on teamwork skills but rather on the success of the end product. If students had to work in a team, the success of the final product will indicate if the teamwork was successful (“...have a successful end product it is to some extent an evaluation of teamwork, if it is a task that they could not do alone...”[G2.4]). This is also done through simulating real life scenarios and receiving marks for delivering a successful simulation, which they are only able to do if they work together successfully.

5.3.5.3 *Theme 3: Work experience*

Findings indicated that work experience is essential to enhance students’ teamwork skills (“...you learn much more the day that you walk in the workspace...”[G1.4]).

5.3.6 Leadership skills

The themes *personality*, *leadership experience* and *methods of teaching* emerged regarding teaching and assessment strategies for leadership skills (Table 5.6).

TABLE 5.6: TEACHING AND ASSESSMENT OF LEADERSHIP SKILLS

THEME	CATEGORY
Personality	Not teachable
	Employer preference
Leadership experience	Opportunities on campus
	Campus committees
	Knowledge (Leaders in a field)
Methods of teaching	Group work
	Evaluation criteria for assignments
	Reflection

5.3.6.1 *Theme 1: Personality*

Participants indicated that leadership is a personality trait which cannot be taught (“Leadership is not something that you can teach somebody”[G1.6]). They also said that if an employer wants a leader, they must employ a graduate who is a born leader (“...the employer has to employ a leader if he wants to have a leader, he can’t expect us to deliver from a group of 40, we should not expect to have 40 leaders, or everybody cannot be a leader”[G1.6]).

5.3.6.2 *Theme 2: Leadership experience*

Opportunities on campus can help enhance leadership skills. Students can participate in committees where these skills can be enhanced. It was also acknowledged that having sufficient knowledge can contribute to being a leader in a specific field (“...if you are knowledgeable in your area then you are also a leader”[G2.4]).

5.3.6.3 *Theme 3: Methods of teaching*

Leadership skills could also be enhanced through group work (“...there is an opportunity to take the lead in a group...”[G2.4]) as well as by giving specific evaluation criteria for assignments to make students aware of their tasks during assignments (“...you assign specific criteria to it that you can assess...”[G2.F]). Doing reflection after assignments helps students to think about their contribution and may enhance their leadership skills (“...it forces them to think about it, and say but listen, I have to do my part, take responsibility”[G2.4]).

5.3.7 **Problem solving skills**

The themes *teaching and assessment strategies* and *building confidence* emerged for teaching and assessment strategies for problem solving skills (Table 5.7).

TABLE 5.7: TEACHING AND ASSESSMENT OF PROBLEM SOLVING SKILLS

THEME	CATEGORY
Teaching and assessment strategies	Problem solving in class
	Solving problems themselves during “practicals”
	Case studies
	Solving everyday problems
	Assignments
	Real life scenarios
	Exams
Building confidence	Practise and knowledge increase confidence

5.3.7.1 *Theme 1: Teaching and assessment strategies*

Findings showed that a variety of teaching strategies can be used to enhance students’ problem solving skills. These include giving them the opportunity to solve problems in class by giving them problems to solve themselves, providing them problems to solve during “practicals” (practical sessions), doing case studies as well as giving them the opportunity

to solve common problems. In addition, giving them assignments and real life scenarios ("One tries to give real life scenarios that they may possibly encounter in real life."[G2.6]) and writing exams ("...exam papers you obviously have to give them problems to solve..."[G1.6]) also provide opportunities to solve problems.

5.3.7.2 Theme 2: Building confidence

It was noted that problem solving is enhanced in students with confidence. Therefore it is important to boost their confidence by ensuring they practice problem solving which will increase their knowledge/skill in solving problems ("...but as they go through practice and they all get the knowledge and the confidence"[G1.4]; "...the confidence to, to solve their own problem..."[G1.5]).

5.3.8 Adaptability skills

Discussion on the teaching and assessment of adaptability skills revealed four themes namely *new experiences*, *teaching and assessment strategies*, *role model* and *outside the curriculum* (Table 5.8).

TABLE 5.8: TEACHING AND ASSESSMENT OF ADAPTABILITY SKILLS

THEME	CATEGORY
New experiences	Innovative practices
	University
	"Practicals"
	Teaching methods
	Quantity
	Textbook in different language
	Time schedule
Teaching and assessment strategies	Independent learning
	Group work
	Problem solving
	Real life scenarios in "practicals"
Role model	Develop over the study period
	Lead by example
Outside the curriculum	Stay calm
	Being a student
	Creative personality

5.3.8.1 Theme 1: New experiences

Participants indicated that when a student experiences something new, they learn to adapt. New experiences include innovative practices, being at university ("...the whole university

is an adjustment to them”[G2.7]), “practicals” and experiencing different teaching methods (“To switch teaching methods, alternating methods...”[G2.4]). The fact that students at university are exposed to a greater volume of work than before, that textbooks are not always in their home language, that time schedules are demanding and that they are required to work independently are also new experiences that enhance their adaptability skills.

5.3.8.2 Theme 2: New experiences

Participants indicated that doing group work (“...you cannot work in a group or a team if you cannot adapt to the individual next to you...”[G2.3]), solving different problems in class and real life scenarios in “practicals” enhances their adaptability skills. It was also noted that adaptability skills must be developed over the duration of their study period.

5.3.8.3 Theme 3: Role model

Findings showed that it is important to lead by example (“Showing them how to handle the situation”[G1.F]), specifically showing students that keeping calm in different situations could help them adapt more easily.

5.3.8.4 Theme 4: Outside the curriculum

Adaptability skills are not only enhanced in the classroom. Participants indicated that being a student as well as the fact that consumer science students tend to have creative personalities helps them adapt.

5.3.9 Risk taking skills

Three themes emerged regarding teaching and assessment strategies for risk taking skills including *create opportunity to take risks*, *theoretical knowledge* and *outside the curriculum* (Table 5.9).

TABLE 5.9: TEACHING AND ASSESSMENT OF RISK TAKING SKILLS
(Table continues on next page)

THEME	CATEGORY
Create opportunity to take risks	Assignments
	Real life scenarios

THEME	CATEGORY
	Case studies
	Assessing the end product
	Highlighting the flaws
	"Practicals"
	Financial risk
	Allowing them to be creative
	Second opportunities for tests and exams
	Optional questions in tests and exams
Theoretical knowledge	Learning the theory
Outside the curriculum	Student life experience
	Work experience

5.3.9.1 *Theme 1: Create opportunity to take risks*

Students must be given the opportunity to take risks. This can be done by giving them assignments, presenting them with real life scenarios as well as case studies. Assessing the end product ("...and it depend on how it came out at the end, did their risk work or not..."[G1.1]) and highlighting their flaws ("...should you have done something a little bit less risky. You have to point out the flaws"[G1.6]) can also increase their risk taking abilities. Risk taking must occur during "practicals" and it can be enhanced by assigning a financial risk to it ("...tell them you have a budget..."[G2.7]) which they are accountable for. Participants also indicated that allowing students to be creative helps them develop their risk taking skills. Giving them a second opportunity to write a test or an exam or giving them an optional question during a test or exam ("...risks increase when you give them one or more options in a test or exam, you know, it is the same question, you can either answer question one or question two"[G2.5]) can help to develop their risk taking skills.

5.3.9.2 *Theme 2: Theoretical knowledge*

Findings showed that there is also theoretical knowledge that students need to learn regarding risk taking ("...teach them how to handle risks"[G1.4]).

5.3.9.3 *Theme 3: Outside the curriculum*

Student life experiences ("...it comes to being a student, it is not necessarily subject specific"[G2.F]) as well as work experience ("...exposing themselves and getting work experience..."[G2.5]) are good methods to improve risk taking skills.

5.3.10 Creativity skills

Four themes emerged for teaching and assessment strategies to develop creativity skills including *creating opportunity to apply creativity, setting realistic expectations, acknowledging and rewarding creative skills* and *not being rigid* (Table 5.10).

TABLE 5.10: TEACHING AND ASSESSMENT OF CREATIVITY SKILLS

THEME	CATEGORY	SUB-CATEGORY
Creating opportunity to apply creativity	Integrated with other skills	
	Creative field of study	
	Creative modules	
	Practical	Clothing "practicals" Ingredients in food practical
Set realistic expectations (assessment criteria)	Pragmatic creativity	
	Creative problem solving	
	Financial risk	
Acknowledging and rewarding creative skills	Encouraging	
	Evaluation criteria	
	End product	
Not being rigid	Memo	

5.3.10.1 Theme 1: *Creating opportunity to apply creativity*

Participants indicated that creativity is integrated with a variety of other skills. Therefore, when increasing, for example, risk taking and problem solving skills, it could also enhance students' creativity skills ("And the creativity and adaptability are almost joined together"[G2.1], "To be adaptable you must be creative"[G2.1]). Furthermore, consumer sciences is a creative field of study with creative modules. During "practicals", including clothing and food "practicals", students also get the opportunity to apply and enhance their creativity skills.

5.3.10.2 Theme 2: *Set realistic expectations (assessment criteria)*

To be able to enhance creativity, it is important that students know what is expected of them. Students need to learn to apply pragmatic creativity and creative problem solving through guided assessment criteria ("...give them guidelines of what they should keep in mind and so, so they can be creative, but within limits"[G2.6]). Providing them with a financial risk, for example, setting a budget also helps to set realistic expectations of the outcome.

5.3.10.3 Theme 3: Acknowledging and rewarding creative skills

Findings showed that creativity skills can be enhanced by encouraging students (“...tell them, I am proud of you, this is very creative...”[G1.5]), rewarding them with marks for creativity by using evaluation criteria (“...marks for an assignment goes for creativity”[G2.4]) and also evaluating the end product (“You look at the final product...”[G2.7]).

5.3.10.4 Theme 4: Not being rigid

Participants explained that a fixed memo tends to restrict students and therefore they must not work with a strict memo but rather give students the opportunity to answer questions in different ways (“...lecturers must give the memo more freedom to fluctuate...”[G2.6]; “To not have a fixed memo of right and wrong...”[G2.4]).

5.3.11 Time management skills

Two themes emerged for time management skills: *ground rules* and *opportunities to apply time management skills* (Table 5.11).

TABLE 5.11: TEACHING AND ASSESSMENT OF TIME MANAGEMENT SKILLS

THEME	CATEGORY
Ground rules	Setting rules
	Deadlines
	Repercussions
	Being firm
Opportunities to apply time management skills	Time management in “practicals”
	Real life scenarios
	Student life experience

5.3.11.1 Theme 1: Ground rules

In an attempt to enhance time management skills participants said that there must be rules, students must have deadlines, there must be repercussions if they do not follow the rules or achieve the deadlines (“...they may not hand in their assignments late, it is not even an option, then I penalize them heavily...”[G2.6]) and lecturers must be firm.

5.3.11.2 Theme 2: Opportunities to apply time management skills

Findings showed that opportunities to apply time management skills helps students to attain these skills. Students can get the opportunity during “practicals” (“...it’s integrated in all the practical activities...”[G1.F]), by having real life scenarios and also by the experience of being a student (“Being a student, because they have to study, they still have a social life, they have to eat, they have to sleep...”[G1.1]).

5.3.12 Overview of implementing skills

After discussing the 11 employability skills, participants gave an overview regarding the teaching and assessment of employability skills. Three themes emerged including *teaching and assessment strategies*, *positioning of modules in the curriculum* and *outside the curriculum* (Table 5.12).

TABLE 5.12: OVERVIEW OF IMPLEMENTING SKILLS

THEME	CATEGORY
Teaching and assessment strategies	Skills are integrated
	Unplanned implementation of skills
	Develop over the study period
	Assessing the end product
	Evidence
	Teaching theoretical knowledge
	Real life examples
	Repercussions
	Variety of methods
	Apply in “practicals”
	Apply in real life situations
Positioning of modules in the curriculum	Monitoring work experience
	Additional module (from second semester in first-year)
Outside the curriculum	Divide/integrate into modules
	Work experience
	Reality outside the curriculum
	Student life experience

5.3.12.1 Theme 1: Teaching and assessment strategies

A variety of categories emerged regarding teaching and assessment strategies including skills are integrated, unplanned implementation of skills, development over the study period, assessing the end product, evidence, teaching theoretical knowledge, real life examples, repercussions, using a variety of methods, application in “practicals”, application in real life situations and monitoring work experience.

Findings showed that employability skills are mostly integrated and that one seldom focuses on one skill without also enhancing one of the others (“...it is risk taking the whole time, creativity, it is problem solving, all of this coming together...”[G1.4]). This also contributes to the fact that the implementation of these skills is not always planned and these skills also develop over the study period.

Participants indicated the importance of assessing the end product because in order to deliver a successful end product, the student had to use a variety of employability skills (“...during the process they display these skills but you don’t assess these skills per se, you assess the end product that is developing through these skills...”[G1.F]). Students must work towards being able to provide evidence that they have attained these skills (“...even their report cards at the end of the year that would reflect...”[G1.5]; “...a testimonial...at the end of the day, if you can give the student a testimonial, you are going to say things like, this student can think for herself, that is also a little bit of assessment”[G1.4]).

Teaching theoretical knowledge can also enhance employability skills (“...in the theory you might tell them how to manage your time...”[G1.1]) and using real examples in class (“...bring real life examples into your lecture”[G1.F]). Participants also said that repercussions are important. It can be done by deducting marks, but also when applying real life scenarios, repercussions can also occur when a practical is not done correctly and the outcome reflects negatively on the student (“...they have the penalty of less marks...there are those where you do have other people involve, might be a bit bigger issue for its their friends who often is going to be the guests and you do not want to look bad in front of them”[G1.6]). Using a variety of methods, applying these skills in “practicals” (“...they come and apply it”[G1.1]) and using real life situations will enhance the application of employability skills.

It was also found that work experience is important; however, it is important that it is monitored (“...somewhere assessment must take place for it, saying they worked at this location for so many hours...”[G2.3]).

5.3.12.2 Theme 2: Positioning of modules in the curriculum

Findings indicated that adding modules where these skills are specifically taught can be beneficial. Although participants indicated that it must start from the first year, it must be

in the second semester since the adjustment to university is overwhelming for first-years ("It must be a second semester module, they must first get on their feet and discover what they need"[G2.1]). It will also be valuable if the skills are divided into components and added in different modules throughout the curriculum ("...a little piece each semester..."[G2.F]).

5.3.12.3 Theme 3: Outside the curriculum

Employability skills are not only developed in the classroom. Work experience ("...it is terribly important that they are absolutely forced..."[G2.3]), reality outside the curriculum ("...a lot of this is really life..."[G1.4]) and student life experiences ("...many of these skills are developed by the students as part of the complete curricula of being a student"[G2.F]) are vital to enhance employability skills.

5.3.13 Summary of the findings

Findings from the focus group discussions revealed a variety of teaching and learning strategies to enhance employability skills. Participants indicated that lecturers can play a big role in helping students attain communication skills. Aspects of communication skills can be implemented through different modules as well as a variety of teaching and assessment strategies. However, factors including the size of classes, time constraints, group work as well as technology could inhibit the promotion of communication skills.

Furthermore, participants indicated that the best manner in which to promote English language proficiency is by building students' confidence and frequently using English. ICT skills can be developed through making sure the curriculum is structured in a way which includes aspects of ICT skills as well as through assignments given to students. A variety of teaching and assessment strategies used in class as well as the experience of being at university could help students enhance their interpersonal skills. It was found that the best manner in which to help students attain teamwork skills is through role play in group work, looking at the outcome of assignments as well as motivating them to get work experience.

Leadership was perceived to be part of a student's personality; however, leadership skills could be enhanced by leadership experience and applying certain teaching methods. In an attempt to enhance students' problem solving skills, different teaching and assessment strategies may be used that expose students to problem solving as well as building their

confidence to solve problems. Students can also learn to adapt through new experiences, using a variety of teaching and assessment strategies, exposure to role models as well as factors outside the curriculum. Participants indicated that if they want to enhance their students' risk taking skills, they must create opportunities for them to take risks and teach them the theoretical knowledge regarding risk taking.

Factors outside the curriculum are also important to enhance the above. Lecturers must give students the opportunity to apply their creativity if they want to enhance creativity skills. They must use assessment criteria to set realistic expectations for them, acknowledge and reward their creativity skills and not be rigid when assessing these. Findings showed that setting ground rules and giving students the opportunity to apply time management could enhance time management skills.

Most of the skills are inter-related and participants indicated that the promotion of one skill usually leads to the promotion of other skills. Lecturers do not always feel it is necessary to assess each skill on its own. Assignments given to students must expect them to apply a variety of skills in order to deliver a successful end product. By doing this, only the end product could be assessed. A successful end product will indicate the successful application of a variety of skills. Participants also indicated that these skills must be embedded into the curriculum through different modules. However, these skills are not only enhanced through the curriculum. Work experience and opportunities outside the curriculum are also essential to increase employability skills.

5.4 CONCLUSION

In this chapter the findings of the focus group discussions were presented. It was found that a variety of teaching and assessment strategies can be applied to ensure the attainment of employability skills. However, participants also indicated that the class environment is not the only place where these skills could be enhanced. Opportunities on campus as well as work experience are important.

After reviewing the literature, results from the questionnaire survey as well as the findings from the focus group discussions, a framework for employability skills of consumer science graduates was constructed. This framework will be discussed in Chapter 6.

CHAPTER 6

A FRAMEWORK FOR EMPLOYABILITY SKILLS OF CONSUMER SCIENCE GRADUATES

6.1 INTRODUCTION

The aim of this study is to construct a framework for employability skills of consumer science graduates. With the high unemployment rate in South Africa, it is essential that universities deliver graduates with sufficient and appropriate employability skills to help them attain employment after graduation as well as to succeed and thrive in an ever changing work environment. With the absence of a national board indicating the skills consumer science students in South Africa need after graduation, a framework describing which skills employers require from consumer science graduates as well as information with regard to how these skills can be taught and assessed to ensure students have mastered these skills, could be beneficial for a variety of role players. These include universities training skilled consumer science graduates, lecturers teaching these skills to consumer science students, consumer science graduates entering the workplace with sufficient skills as well as employers who will receive highly skilled employees.

The literature study, results from the questionnaire survey as well as the findings from the focus group discussions were used to construct a framework for employability skills of consumer science graduates, in order to address the aim of this study.

Value was added to this study by the pragmatic approach during data gathering by collecting different types of data, which provided a detailed understanding of the research problem (cf. 3.2.2). Using a variety of methods also contributed to triangulation of results and provided depth, as well as width to the research findings, which resulted in a comprehensive framework for employability skills.

In this chapter, the theoretical framework will be discussed. The employability skills important for the consumer science graduate will firstly be discussed followed by an explanation of how these skills could be attained by students throughout their degree studies. Although the framework that is provided in this chapter provides a variety of general skills applicable to general study fields, throughout this study, the focus was on consumer science graduates. Study participants included consumer science students,

consumer science graduates, consumer science lecturers as well as consumer science employers, and all the information retrieved from these participants was focused only on the consumer science subject field. The wide scope of employment and fields that consumer science graduates work in, implies that these skills need to be comprehensive, yet applicable in a variety of contexts.

6.2 EMPLOYABILITY SKILLS OF CONSUMER SCIENCE GRADUATES

Results indicated that the employability skills of consumer science graduates need improvement, which emphasises the importance of this study. However, it is important firstly to understand which skills consumer science employers require from newly employed consumer science employees in order to know which skills must be developed and enhanced.

6.2.1 Required employability skills of consumer science graduates

In the questionnaire survey (cf. Chapter 4) 11 skills were presented to respondents in order to identify the skills that are important for career success. Although the level of importance of each skill varied between employers, all 11 employability skills were regarded as important to employers. These skills include communication skills, English language proficiency, information, communication and technology (ICT) skills, interpersonal skills, teamwork skills, leadership skills, problem solving skills, adaptability skills, risk taking skills, creativity skills and personal organisation and time management skills (Figure 6.1). An important part of employability skills, especially in the South African context, is cultural awareness. Results indicated that cultural awareness must be merged into all 11 employability skills for consumer science graduates to thrive in the diverse work environment.

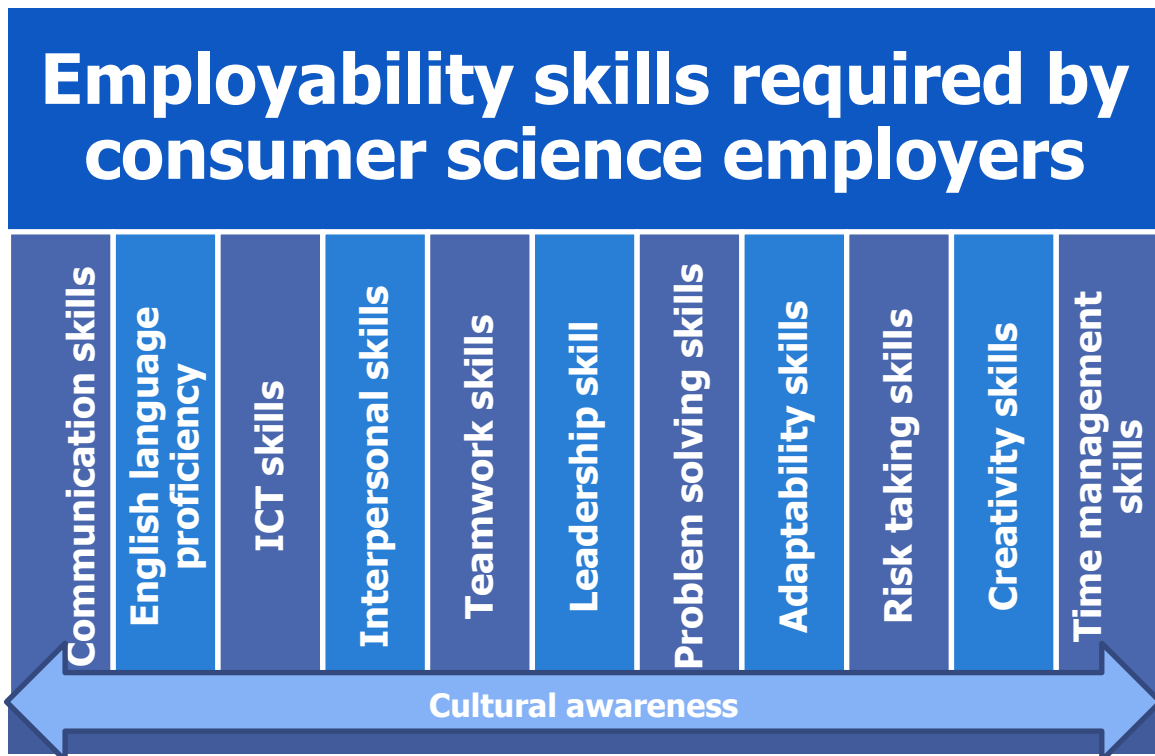


FIGURE 6.1: EMPLOYABILITY SKILLS REQUIRED BY CONSUMER SCIENCE EMPLOYERS (COMPILED BY THE RESEARCHER, DU PREEZ 2016)

The study also determined what each skill entails. Each skill consists of a variety of aspects important for the work environment. The questionnaire survey (cf. 4.4.4.1) asked respondents to point out any other skills they regard as important. No additional skills surfaced, because the additional skills mentioned by respondents formed part of the aspects of the 11 skills already identified. Although cultural awareness is intertwined into these 11 skills and not regarded as a new skill, the importance thereof was highlighted and must be emphasised throughout the consumer science curriculum. An overview of the contents of each skill as identified in this study will be discussed in the following section.

6.2.1.1 *Communication skills*

Verbal and written communication skills are vital to succeed in the work environment (cf. 2.4.1; Chapter 4). Before a student enters the workplace, communication skills are used to attain employment as graduates need to apply good writing and grammar in CVs, use telephone etiquette when contacting potential employers and communicate effectively during interviews. Important aspects of communication skills furthermore include the ability to clearly communicate verbally and orally, to listen and ask questions, to express ideas verbally to individuals and to groups, to make effective oral presentations and to formulate good logical arguments to persuade others.

Proper communication in the business environment is vital since employees must be able to network as well as use corporate language in their communication, which includes professional e-mails (cf. 4.4.4.1). Employees' ability to work with and communicate with people from different backgrounds and culture groups is vital ("Being able to work with people who have very different beliefs and habits"). This will also improve teamwork skills ("Ability to work in a culturally diverse team"). To highlight the importance of communication skills, when asked which three skills are most important for career success, communication skills were selected by 71.43% of respondents (cf. 4.4.4).

Although the majority of students and graduates indicated that they are competent regarding the different aspects of communication skills, results from the questionnaire survey (cf. 4.4.1.1) revealed that lecturers and employers scored graduates' competency lower than students. More than half of lecturers and employers indicated that graduates' writing skills as well as oral presentation and persuading skills are poor to good, indicating the need to develop these skills during their graduate training.

6.2.1.2 *English language proficiency*

As industry mostly uses English (cf. 2.4.2), being confident in using English while communicating is essential. This includes the use of English in verbal and written communication, which may also improve opportunities for employment by enhancing the graduate's confidence in interviews. The ability to comprehend written English, create documents in English proficiently as well as communicate comfortably with others in English without shying away from using the language in the work environment were mentioned to be important to extremely important by respondents (cf. 4.4.1.2). Although only some lecturers and employers perceived that consumer science graduates' English skills were not of adequate standard since they may sometimes appear uncomfortable speaking English, the aspect most concerning was the fact that the majority of these respondents indicated that consumer science graduates' ability to create satisfactory English documents was poor to good. Students from the two universities included in this study were mainly Afrikaans. It is important to ensure that all consumer science graduates' English language proficiency is sufficient for the work environment, including those whose home language is not English.

6.2.1.3 Information, communication and technology (ICT) skills

Since we live in a digital age where technology is crucial in any business, employees' knowledge regarding the use of technology is essential. Furthermore, with the amount of information freely available, employees need to have the skill to be able to gather the correct information using technology, without wasting time, and have the skill to effectively communicate the needed information in the proper manner (cf. 2.4.3). ICT skills are beneficial for all employees (cf. Chapter 4). This entails everyday computer skills including editing and creating and saving documents, as well as knowledge of spreadsheets. Since presentation skills are important for the work environment (cf. 6.2.1.1), knowledge regarding the preparation of presentations including the construction of PowerPoint presentations is important, along with the use of the internet to obtain relevant information. Having extensive expertise in the sending and receiving of e-mails is also essential.

6.2.1.4 Interpersonal skills

A good employee has the ability to listen to other people's opinions, work cooperatively and communicate, and get along well with others (cf. Chapter 4). This could potentially have a positive impact on the work environment. Although not all respondents agreed, the ability to display empathy towards others may also be important in some work environments. Personal qualities which can be seen as interpersonal skills are valued by employers (cf. 2.4.4) and all four sample groups indicated that personal attributes are important for career success (cf. 4.4.4.1). Being positive, enthusiastic, motivated, hardworking and honest are characteristics desired by employers and will help consumer science graduates attain employment and thrive in the work environment. Furthermore, "taking others into consideration" and "helping others" is valued by employers (cf. 4.4.4.1). Resilience, a characteristic which forms part of interpersonal skills, and will help employees cope in the work environment is also important "not absorbing harsh words and conflict in the work place, not allow it to affect personal emotions", "handling criticism effectively", know how to "cope with criticism" and "handle disappointments" (cf. 4.4.4.1). Interpersonal skills are inter-linked with and may positively influence other skills including communication and teamwork skills.

6.2.1.5 Teamwork skills

Teamwork skills are vital for an employee to succeed in the work environment and improve the productivity of a company (cf. 2.4.5). The fact that an individual enjoys working in a team and sees the value of the "give and take" policy of teamwork is therefore valuable for a company (cf. 4.4.1.5). This contributes to the important fact that employees must be capable to follow group standards, place team goals ahead of own goals as well as cooperate with group members. Lecturers and employers perceive that consumer science graduates are not always positive regarding group work (cf. 4.4.1), although doing group assignments was seen as one of the most valuable methods used to increase employability skills (cf. 4.5.1). This highlights the importance of implementing group work. Since most workplaces require teamwork, it is important that students' teamwork skills are developed.

6.2.1.6 Leadership skills

As teamwork is so important, it is also essential that each team should have a leader (cf. 2.4.6). Although leadership was found to be an important skill to have, all aspects of leadership skills were not seen as equally important (cf. 4.4.1.6). The majority of student and graduate respondents indicated that one should be able to lead people and give direction and guidance to others. However, only 8.33% of lecturers and 32.79% of employers found that having the ability to lead people is extremely important. The other lecturers and employers who took part in this study found it to be somewhat important to important. Furthermore, 16.67% of lecturers and 37.70% employers indicated that it is extremely important to have the ability to give direction and guidance to others while the rest of the lecturer and employer sample group felt it was mostly moderately important to important. Aspects of leadership found to be important to extremely important to all respondents included the willingness to take ownership and responsibility, to motivate others and to be able to delegate work to peers. However, some employers (21.31%) felt that delegating is only somewhat to moderately important. Furthermore, lecturers and employers indicated that the ability to provide guidance and to motivate others and delegate work effectively is sometimes lacking in consumer science graduates, and therefore needs attention (cf. 4.4.1.6).

When developing leadership skills, enhancing confidence is important, for when you are confident, you may come forward as a leader (cf. 4.4.4.1). Confidence also increases problem solving skills since employees trust their own opinions (cf. 5.3.7).

6.2.1.7 Problem solving skills

Employees must identify and solve new problems daily (cf. 2.4.7) and resolve conflict with others (cf. Chapter 4). It is therefore important to be able to gather information and find solutions for problems (which links to ICT skills). Respondents were asked to indicate which three skills are most important for career success and problem solving skills were scored second highest by all four sample groups, emphasising the importance of being able to solve problems in the work environment (cf. 4.4.4). Although problem solving is important, only 16.67% of lecturers and 25.00% of employers indicated that it is extremely important for employees to solve problems on their own (cf. 4.4.1.7), which emphasises the importance of teamwork skills.

6.2.1.8 Adaptability skills

In an ever changing work environment, employees must be capable of adapting to changing conditions in the workplace (cf. 2.4.8). This includes the ability to adapt to different tasks, roles, responsibilities and schedules without being emotional. It is important for consumer science graduates to know how to identify and suggest alternative ways to reach outcomes in the workplace, and that employees must be able to cope with uncertainty, take up new challenges and adapt to different situations and change (cf. 4.4.1.8). However, employers indicated that consumer science graduates often struggle to cope with uncertainty and adapt to change, highlighting the fact that adaptability skills must receive more focus during student training.

6.2.1.9 Risk taking skills

Although risk taking in the changing work environment is inevitable, respondents indicated that taking job-related risks is moderately important to important with only 18.03% of employers indicating that it is extremely important (cf. 4.4.1.9). Risk taking becomes a problem when an employee risks the assets of the company (cf. 2.4.9). However, continuous changes in the workplace require taking calculated risks in order for a company to move forward. The majority of all respondents indicated that when it comes to risky ventures, an employee's ability to identify negative outcomes and monitoring the progress of outcomes is important to extremely important (cf. Chapter 4). It is also vital to recognise alternative routes when aiming to meet objectives and being willing to accept challenging assignments.

6.2.1.10 *Creativity skills*

In order to attain problem solving, adaptability and risk taking skills, one must be innovative and often think out of the box (cf. 2.4.10). In a constantly changing and challenging work environment, new and innovative solutions are needed, requiring creative thinking. Employees should provide novel solutions to problems, adapt to changes, initiate change to enhance productivity and give creative suggestions to improve the job (cf. 4.4.1.10). Again, it is essential to note that the different skills are interrelated and enhancing one skill could contribute to the enhancement of other employability skills. Consumer science is seen as a creative field (cf. 5.3.10); it is therefore vital to stimulate students' creativity and advance the needed skills for them to implement this creativity in the work environment.

6.2.1.11 *Personal organisation and time management skills*

Effective time management and multi-tasking is crucial for the workplace since tasks have to be completed on time whilst maintaining quality (cf. 2.4.11). To succeed in the work environment, one needs to have the ability to set priorities, allocate time efficiently, meet deadlines, be on time, use time and materials of the company strategically, complete work thoroughly and always meet the identified standards (cf. 4.4.1.11). In addition, being disciplined, having the ability to balance your personal and professional life ("Able to separate personal and work life and time") as well as the ability to multi-task is vital in the work environment (cf. 4.4.4.1). To further highlight the importance of good time management, the majority of graduates, lecturers and employers indicated that time management is one of the three most important skills for career success (cf. 4.4.4).

6.2.1.12 *Cultural awareness*

Cultural awareness is crucial in South Africa's diverse work environment and must be interweaved into all 11 employability skills. Possessing cultural awareness has a positive effect on other employability skills, and enhancing employability skills also improves ones cultural awareness. In their responses to open ended question in the questionnaire survey (cf. 4.4.4.1) graduates and employers indicated that it is important to have the ability to work in culturally diverse teams with people with different beliefs and habits and understand and have respect for different cultures. In order to achieve this, communication skills (cf. 2.4.1), teamwork (cf. 2.4.5) as well as interpersonal skills (cf. 2.4.4) are vital. In South Africa, English is considered the language which binds different cultures together (cf. 2.4.2)

and having the ability to adapt (cf. 2.4.8) is also essential. Therefore when enhancing employability skills of students, special attention should be given to improving students' cultural awareness and regularly exposing them to diversity (cf. 4.5.1.5; 5.3.2).

6.3 A FRAMEWORK AIMED AT ENHANCING THE EMPLOYABILITY SKILLS OF CONSUMER SCIENCE GRADUATES

From results described in Chapter 4 it was revealed that students viewed themselves to be more competent in the different employability skills than lecturers and employers perceived them to be. Literature found that students have a tendency to overestimate their abilities (cf. 2.6.5). Although graduates also viewed themselves as more competent than lecturers and employers viewed them to be, they gave themselves a lower competency score than students (cf. Chapter 4). This could be due to the fact that they have already entered the workplace and have a more realistic idea of the skills they have actually gained. Lecturers and employers gave the lowest scores, with lecturers scoring consumer science graduates' competency the lowest. This is concerning since they are mainly responsible for teaching these skills to students. As explained in Chapter 4 (cf. 4.4.1.12), lecturers interact with all students, the high achievers as well as those students who do not perform well. Employers on the other hand are only exposed to employed consumer science graduates who went through recruiting, and most probably stood out above other applicants. Therefore, employers often deal with the more skilled consumer science graduates, which could explain the fact that they viewed graduated competency higher than lecturers did.

Nevertheless, the 11 employability skills discussed above were found to be vital for consumer science graduates to be employable and must be attained by students before graduation. Significant differences frequently occurred between employers' and students' opinion on how competent graduates are regarding employability skills. This highlights the fact that graduate employability skills need improvement. It was also found that cultural awareness must be integrated into each of these 11 skills.

A framework for employability skills was constructed to demonstrate the enhancement of these employability skills of consumer science graduates. The researcher initially aimed to construct a framework consisting of different teaching strategies which lecturers can use to enhance employability skills, and assessment methods to ensure students have mastered these skills. Although this forms part of the framework, as seen in Figure 6.2, it was found that a variety of factors influences the development of employability skills, including

strategies both within as well as outside the classroom. These include educational experience, extra-curricular experience, the role of the student as well as the role of the lecturer.

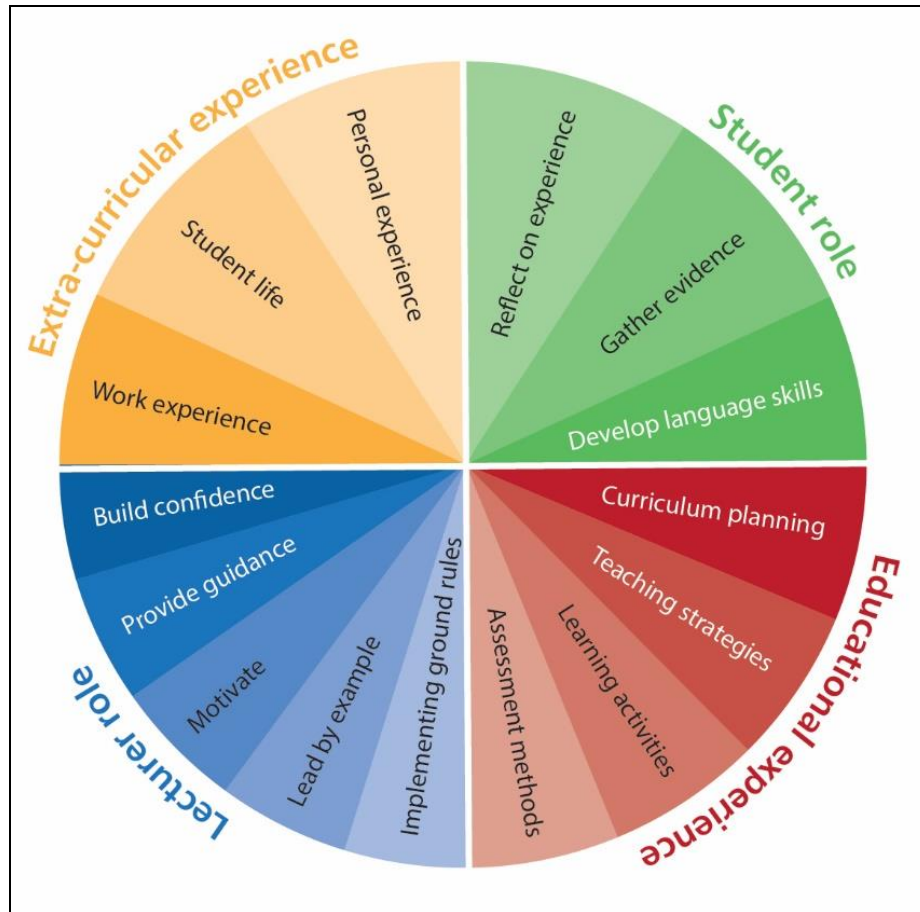


FIGURE 6.2: A FRAMEWORK FOR EMPLOYABILITY SKILLS OF CONSUMER SCIENCE GRADUATES (COMPILED BY THE RESEARCHER, DU PREEZ 2016)

The different aspects which may enhance employability skills will be discussed in the following section.

6.3.1 Educational experience

Educational experience refers to the experiences students obtain as part of the curriculum, mainly in the class environment. This study identified four educational experiences which could contribute to the development of employability skills including curriculum planning, teaching strategies, learning activities and assessment methods.

6.3.1.1 Curriculum planning

Employability skills can be developed through a variety of modules included in the curriculum. Including compulsory modules, elective modules or dividing employability skills into components and embedding these components in a variety of modules could enhance employability skills.

Compulsory modules

Employability skills could be developed by including compulsory modules in the curriculum (cf. Chapter 5). Communication skills can be enhanced by including a module focusing on verbal and written skills. ICT skills can be developed by including modules that teach students a variety of computer programmes, for example, Word, Excel and PowerPoint. It is advised that such modules should be implemented at an early stage to make sure students have the opportunity to apply what they have learned throughout the curriculum. This also gives students the opportunity to practice the necessary skills (cf. 5.3.3).

Although not identified by focus group participants, another method used to develop employability skills through compulsory modules is by including a capstone module (cf. 2.5.3.4). A capstone module is usually taken in the last semester before a student graduates to apply all the knowledge and skills learned throughout the degree in one module or assignment. This is best implemented when the module or assignment covers a real workplace problem and requires a student to apply a variety of employability skills in order to solve the problem. The aim of a capstone module is not to teach students new employability skills, but to assist students in applying already learned skills, to make sure the student is prepared for the work environment. Although capstone modules are not currently part of the consumer science curriculum at the two universities included in this study, it is recommended that the inclusion of such a module is considered.

Elective modules

Due to full curricula, adding compulsory employability skill modules into the curriculum is not always possible (cf. Chapter 5). Including elective modules or even presenting workshops could help students to enhance the skills they are lacking and want to develop. Such a module or workshop could add value to graduates' CVs (including modules on leadership, communication or teamwork skills) and could improve students' confidence (cf.

2.5.3.4). Students who know where they are heading after graduation often enrol for additional modules to increase their knowledge and skills (cf. 5.3.1) (“when they aim for a career in a field where that’s extremely important they do it, they take it”[G1.6]).

Since it is noted that some employability skills may increase when stress levels decrease, a stress management course could also be a valuable elective to offer students. When compulsory and elective modules are designed to enhance employability skills, focussing on real life work problems will increase the development of these skills and continuous feedback will help students recognise the skills they have attained (cf. 2.6.6). Although having specific skill development modules is valuable, embedding employability skills into existing modules is indispensable.

Embedding components of employability skills into modules

To ensure that students attain employability skills, these must be divided into components and embedded into the curriculum including all modules (cf. 2.5.3; Chapter 5). Participants said that by doing “a little piece each semester”[G2.F] will help students to attain all the needed skills by the end of their degree. However, it is important that lecturers plan together to ensure all the necessary skills are embedded into the different modules and make sure students have the ability to apply these skills (cf. 5.3.13) and use a variety of teaching strategies to ensure that students attain these (cf. 2.5.3).

6.3.1.2 *Teaching strategies*

A student-centred approach in class is the best method to attain employability skills. Student-centred teaching entails teaching methods where students are actively involved in the learning process by experiencing something different than merely listening to a lecture (cf. 2.5.4). Lecturers facilitate the learning experience and encourage students to attain knowledge and skills which will prepare them for the work environment. For optimum skill enhancement, student-centred teaching methods must constantly vary, real life scenarios must be used and roles must be assigned to diverse group members.

Varying student-centred teaching methods

Student-centred teaching methods are essential to enhance employability skills and by using a variety of these methods and varying methods between lecturers, employability skills

could be enhanced since students learn to adapt to new situations and think critically (cf. Chapter 5). Active and experiential learning, both of which are student-centred teaching methods must therefore be implemented by lecturers, for example, simulations, paired problem solving, jigsaws, flipped classroom methods, service learning, work integrated learning (WIL), brainstorming, group discussions, team-based learning (TBL), problem-based learning (PBL), project-based learning (PjBL) and cooperative learning (cf. 2.5).

Real life scenarios

Real life scenarios are integral to student-centred teaching methods and these scenarios resembling problems that will be faced in the work environment are essential to enhance employability skills (cf. 2.5.3). This will assist students to get a realistic picture of the work environment and realise the skills they already have and those they still need. Student-centred teaching methods are ideal for implementing real life scenarios. Students could be given specific problems, and lecturers facilitate the process where students solve these problems. These real life scenarios could be enhanced by expecting students to speak English during class as well as submit English assignments, do simulations, participate in mock interviews or including employers in the teaching and assessment of students (cf. Chapter 2). Including "real costs"[G2.6] and "real clients" to assignments could help students experience real life scenarios mirroring the work environment (cf. 5.3.9).

Assigning roles to diverse groups

Group assignments are one of the best methods to enhance the majority of employability skills. To make sure group work provides optimum skill enhancement, roles must be assigned to group members (cf. 2.5.3.2). Members learn to take responsibility and also work together to deliver a successful end product. It is also advised that changing roles throughout larger assignments could be a valuable method to use since students get the opportunity to practice different aspects, and work with other members of the team (cf. 5.3.5).

In the work environment, employees work with colleagues from different backgrounds and cultures; therefore, it is essential that class groups are diverse. Lecturers must make sure that different ethnic groups, students speaking different languages or, when possible, students who are enrolled in different study fields must be placed together to resemble the workplace (cf. 5.3.2). When consumer science classes are not diverse, it is advised that

lecturers use assignments where students make contact with other fields of study in order to be exposed to individuals from other backgrounds and with different mind-sets and cultures (cf. 2.5.3.2). Working in groups across faculties helps students to become accustomed to working with people with different expertise and roles, resembling the real work environment (cf. 4.5.1.5).

6.3.1.3 *Learning activities*

To ensure that employability skills are enhanced, it is necessary that students regularly do assignments focused on the application of different employability skills (cf. Chapter 5). This includes written as well as verbal assignments.

Written assignments

Written assignments are essential to develop employability skills and can enhance communication skills by helping students improve their writing ability (cf. 5.3.1). Professional writing skills could be enhanced through structured reports and literature studies. Expecting students to gather information for assignments from relevant internet sources and submitting assignments electronically could also enhance ICT skills. Making use of real life scenarios in case studies may enhance problem solving skills. By adding a financial risk or budget to these assignments, risk taking abilities could also be developed.

Survey respondents (cf. 4.5.1) indicated that literature studies could also be a good method to increase English language proficiency and 69.23% of lecturers said it could enhance time management skills. This is done by assigning deadlines to assignment. It is vital that students know when they do not meet these deadlines, there will be consequences. This could include deducting marks or not allowing students to take part in certain activities when they did not follow rules or meet deadlines, and will not only increase their time management skills but also teach students that there are consequences for their actions, which simulates the work environment. Subsequently it is therefore important that students regularly submit a variety of written assignments.

Verbal assignments

Verbal assignments including presentations, presenting case studies or doing simulations or role play in class could enhance employability skills (cf. 5.3.1). Survey respondents (cf.

4.5.1) indicated that oral presentations are a good method to increase communication skills: 69.23% of lecturers indicated that oral presentations are a good method to enhance creativity skills and 61.54% said it could increase time management skills. By giving students presentations to prepare, and changing some details of the assignment moments before the presentation, for example adding more instructions or asking students to present each other's presentations, enhances creativity and adaptability skills (cf. 2.5.3.3).

Creativity could also be enhanced by expecting students to present their work to the class orally in the form of a story. However, verbal assignments should be conducted in a formal manner, for example, as for a conference or interview in order for students to experience a real life scenario (cf. 2.5.3.3). This will encourage them to deliver work of a high standard. A formal presentation with a time limit also helps students to develop time management skills and teaches them to write concise reports enhancing their written communication. By gathering information for the presentation and using technology to deliver the presentation, ICT skills could also be enhanced. When lecturers guide students during presentations and give them feedback, it could also improve students' non-verbal skills including facial expressions, gestures, body language and personal appearances.

6.3.1.4 *Assessment methods*

Assessment is critical in the development of skills and needs to be done thoroughly. By setting deadlines, including peer and self-assessment, including employability skills in assessment criteria, as well as tests and exams as part of the assessment process, the lecturer ensures that it is a meaningful process.

Assigning deadlines to assignments

Assigning deadlines to assignments could enhance students' time management skills (cf. 5.3.11) which is an essential employability skill (cf.4.4.4). Since the work environment requires employees to multi-task and accomplish various tasks at scheduled deadlines, time management is a very important skill for graduates. Although the ability to meet deadlines was found to be a very important skill, according to the questionnaire survey (cf. 4.4.1.11) 45.76% of employers indicated that newly employed consumer science graduates' ability to meet deadlines is poor to good. Lecturers must therefore implement fixed deadlines and make sure repercussions are in place when students do not meet set deadlines (cf. 5.3.11).

Lecturers need to set shorter deadlines for students to become accustomed to the fast-paced work environment (cf. 2.5.3.4). This will teach students to adapt and set timeframes.

Peer and self-assessment

Peer assessment may be a valuable method in the assessment of certain assignments (cf. 2.6.4). This is especially seen with group work as members have a better idea of the contribution of each member. When students know other group members are assessing them, they will make sure their contribution is relevant, which could decrease students' poor contributions in group work. This could also enhance their communication and interpersonal skills (cf. 5.3.4) since they often have to communicate the assessment with members and it teaches them to handle criticism in a positive manner. This is important since consumer science employees mostly work in competitive work environments where they might often be faced with criticism.

Students' self-assessment ability is also important for it can help them reflect on their own work and build on the skills they are lacking (cf. 2.6.5). However, for peer and self-assessment to be effective, it is important to train students on how to assess. Furthermore, to ensure a realistic mark is given, rubrics could play a big role as will be discussed later. Students tend to overestimate their abilities or give higher marks for group members. It is advised that the first-time students do peer or self-assessment, lecturers should also assess, and the outcome of these assessments should be compared. In this way, correct assessment methods and optimal use of assessment criteria may be taught. It is also useful to compare peer assessment to self-assessment to help students gain a realistic view of the skills they have attained.

Including employability skills in assessment criteria

Students tend to focus on the things they know lecturers are giving marks for; therefore, it is advised that lecturers include employability skills as part of assessment criteria to ensure that students focus on enhancing these skills (cf. 2.6; 5.3.10).

When giving assessment criteria for employability skills, it is sensible to divide the specific skill required into different components, and give marks for the components of each skill (cf. Chapter 5). For example, when acquiring communication skills one will list voice, language, and posture to evaluate verbal communication. However, when lecturers want

to enhance students' written communication skills, assessment criteria might include referencing, language and technical editing. This could be done for all employability skills. For example, when assessing teamwork skills (cf. 2.6.4.1), it could be more beneficial to include different aspects including sufficient sharing of information, communicating effectively to team members and good relationships with team members.

By dividing skills into different components, students can focus on different aspects of a skill and learn which component of the skill they are lacking. This could also be applied to work experience, since the lecturer can list all the needed skills and requirements of work experience. When including employability skills as part of assessment criteria, it is helpful to get the opinion of an employer to make sure these skills are on the level required in the work environment (cf. 2.6). It is suggested that lecturers always provide assessment criteria to help students know what they must aim to achieve and also to help them realise whether or not they have achieved what is required from them (cf. 5.3.1).

Participants in this study (cf. Chapter 5) did not elaborate on using checklists, rating scales or rubrics, however, by including these methods in assessment criteria, students can see what lecturers are assessing and what they need to accomplish to score marks or obtain positive feedback (cf. 2.6). Checklists can be used to indicate whether or not a skill has been attained and generally consist of a yes or no answer without including detail regarding the level of attainment or marks (cf. 2.6.1). To get a more detailed understanding of the degree to which a skill has been attained, skills may be divided into components and a rating scale can be used (cf. 2.6.2). Each component of a skill could be rated as, for example 1-poor, 2-fair, 3-adequate, 4-good or 5-outstanding. Scores may then be added to generate a mark. This is a good method to indicate whether or not skills have been attained and to what extent these have been mastered.

A rubric may be used to give more detailed feedback (cf. 2.6.3). Rubrics also have a list of criteria, but provide descriptions for each scale and may be used to assess verbal as well as written assignments and indicate precisely what students receive marks for. Since a rubric provides detailed descriptions, students know beforehand what is expected of them and lecturers have the opportunity to give honest feedback. Lecturers must ensure the rubric represents specific learning outcomes and take the time to explain the rubric to students. A fixed memo usually inhibits students from thinking out of the box (cf. Chapter 5). One participant indicated that "lecturers must give the memo more freedom to fluctuate"[G2.6] (cf. 5.3.10). By using rubrics and adding different employability skills for

example creativity to the assessment criteria, students will be motivated to not only write information learned in textbooks, but apply their knowledge and be innovative.

Tests and exams

Tests and exams are seen as traditional assessment methods (summative assessment), and lecturers may be motivated to include a variety of new techniques where knowledge is not just regurgitated (cf. 2.5.3). However, focus group participants see value in adding tests and exams as part of assessment methods. When writing tests and exams, students get the opportunity to solve problems and apply the knowledge they have learned (cf. 5.3.7). One participant said, "If they can solve it on paper hopefully they will be able to solve it in reality after the paper"[G1.6]. Furthermore, when lecturers give students the optional questions to answer in the same paper, it helps them to make decisions and may influence their risk taking abilities (cf. 5.3.9). Risk taking could also be encouraged by providing them the opportunity to write a second paper and using the marks attained for the second paper only. Studying for tests and exams further enhances time management skills (cf. 5.3.11).

6.3.2 Extra-curricular experience

Although results revealed that various classroom methods may be used to develop employability skills, factors outside the curriculum were also found to be vital to ensure students attain sufficient employability skills (cf. 4.5; Chapter 5). These include personal experience, student life as well as work experience.

6.3.2.1 *Personal experience*

Students' personal experiences including relationships with family and friends, informal conversations, their personality, travelling, social media, tele-communication, knowledge gained from school, hobbies and sport as well as reading could enhance their employability skills. Although lecturers cannot control a student's personal experiences, they can motivate students to increase positive personal experiences.

Personal experiences can enhance employability skills by helping students to be more comfortable in certain situations, communicate with others, and can improve a student's confidence. Building confidence enhances a variety of skills including English language proficiency, problem solving as well as interpersonal skills. Personal experience is therefore

important to increase students' interaction with others, to build their confidence, but also to expose them to English as well as people from diverse backgrounds. Communication skills could be enhanced by the variety of personal experiences and teamwork skills could be developed by taking part in team sport activities.

6.3.2.2 *Student life*

Experiences gained from being at university are another method outside the classroom environment which influences students' employability skills. In the focus group discussions (cf. 5.3.4) one participant said that "being at varsity force you to interact with other people ... that is one of the big benefits of being at varsity"[G1.4] and another added to this by saying "It is once again the environment that support all these skills"[G1.F]. Student life includes having English-speaking friends, being exposed to diverse cultures, adhering to time schedules as well as being part of committees.

The experience of being a student enhances skills since students learn to adapt to new experiences and multi-task (cf. Chapter 5). Not all students' home language is English, and the attainment of employability skills is further enhanced when students interact with English friends and diverse cultures and must comply with different time schedules of classes and university activities. Being part of committees at university is one of the best methods to enhance time management skills (cf. 4.5.1) and is a good method to enhance all ten of the other identified employability skills. Student life also contributes greatly to enhancing students' cultural awareness (cf. 2.5.3.4).

6.3.2.3 *Work experience*

Real life scenarios and actual work experience are good methods to enhance the attainment of employability skills. A comment made from a focus group participant ("you learn much more the day that you walk in the workspace"[G1.4]) stresses the importance of work experience (cf. 5.3.5). Having a part time job or an internship is the best method to increase risk taking skills (cf. 4.5.1). It is also a good method to enhance communication skills, English language proficiency, interpersonal skills, teamwork skills, problem solving skills, adaptability skills as well as creativity and time management skills while increasing cultural awareness. Lecturers (53.85%) indicated that it could be a good method to increase leadership skills and 46.15% said it could also enhance ICT skills. Work experience assists students' understanding of what is expected of them in the workplace and realising which

employability skills they lack. Employers favour applicants with experience, and the majority of job vacancies require work experience (cf. 2.5.3.1).

To ensure students attain sufficient and relevant work experience, lecturers must monitor part-time work or internships and encourage them to gain experience (cf. 5.3.12). The best manner in which to force students to attain experience is to assess the work they have done. In order to help students gain relevant work experience and obtain sufficient employability skills, lecturers assess whether or not the student has worked, and evaluate the type of work experience, including the company they have worked for, the duration and the type of work the student did (cf. 5.3.12). Lecturers can use this information to assess whether or not it was a useful experience and if the needed skills were enhanced. By letting the students reflect (cf. 6.3.3.1) on the experience, lecturers could guide students to realise what they have learned and propose future work experiences.

6.3.3 Student's role

Even though universities must use appropriate teaching strategies to teach students the needed employability skills, it remains the student's responsibility to take ownership of their own learning and make sure they acquire the necessary skills before graduating (cf. 2.5.1). Students must ensure sufficient skill attainment by reflection on their experiences, gathering evidence of the skills they have attained and making sure they have developed sufficient language skills.

6.3.3.1 *Reflect on experience*

Literature has shown that when students reflect on a learning experience, it helps them to realise what they have learned and where they need to improve (cf. 2.6.7). This is a useful method to use in the classroom, after teaching strategies including class activities, assignments and assessment, as well as outside the classroom with activities including work experience, university experiences (student life) as well as personal experiences. It is vital to include feedback as part of the reflection process. Lecturers must make time for feedback on assessment and give students time to share their opinions and reflect on what they are lacking. A good method is for students to summarise their thoughts after feedback. This is also useful after peer and self-assessment and may be a vital learning experience for students. Students realise what they are lacking, and have the opportunity to plan how to improve. Reflection on personal experience, their student life and work experience may

also help students realise how the different experiences have influenced their skill enhancement and what they can do outside the classroom to improve it even further. It is also important for students to reflect on their own as well as other group members' contribution to team projects to realise what they have learned, and encourages them to do their part in group assignments (cf. Chapter 5). One participant indicated the importance thereof by stating (cf. 5.3.6) "it forces them to think about it, and say but listen, I have to do my part, take responsibility"[G2.4]. This may also enhance their leadership skills as they realise what they are capable of.

6.3.3.2 *Gather evidence*

It is important for students to compile evidence of all the skills they have gained during their studies (cf. 5.3.12), including skills both inclusive and outside the curriculum such as work experience. The workplace is overflowing with applicants, and therefore it is imperative that evidence of skills attained and the ability to apply these skills proves their value to prospective employers (cf. 2.6.8). Evidence includes testimonials from lecturers (cf. 5.3.12). To obtain a good testimonial, students should demonstrate their commitment throughout their studies. Good marks at the end of the year could also be a sign of good time management skills showing that students made time to fit everything in ("their report cards at the end of the year that would reflect on their time management"[G1.5]).

When lecturers include employability skills in their assessment, students can use this as evidence of attaining the required skills (cf. 2.6.8). Compiling a portfolio with all the evidence of skills attained could contribute to an impressive CV. Monitoring of a student's work experience, references from previous employers and evidence of committee involvement can also be included in the portfolio.

6.3.3.3 *Develop language skills*

Communicating skills are vital to succeed in the work environment (cf. 6.2.1.1), and since English is the language primarily used to communicate in this environment (cf. 6.2.1.2) being comfortable in using the language will not only help students to succeed in the work environment, but also improve their chances of employment (cf. 2.4.2). It is important to note that the majority of consumer science students from the universities included in this study are Afrikaans-speaking, and English is not their home language (cf. 3.3.2.3). Classes and assignments are generally presented in Afrikaans. When non-English speaking

students are comfortable using English, they will have more confidence in using it, tend to use it more frequently and therefore improve their proficiency (cf. 5.3.2). Informal conversations in English are therefore a good method to increase this skill (cf. 5.3.2).

Lecturers could instruct students to communicate in English when e-mailing, require assignments to be submitted in English, use English textbooks, expect students to communicate in English during class, “practicals” and presentations, and make sure groups are diverse representing various language and culture groups (cf. 2.5.3.3; 2.5.3.4; 5.3.2). Doing English literature studies and presentations are good methods to enhance English language proficiency (cf. 4.5.1). Students should be encouraged to use English during informal interaction with friends and family and while travelling, to read more English articles and books as well as watch English movies and documentaries and use social media to make them comfortable with the language (cf. 4.5.1.2; 5.3.2). Work experience is also a good method to increase English language proficiency. It is the student’s responsibility to improve their language skills.

6.3.4 Lecturer’s role

Although students have a responsibility towards their own attainment of employability skills, lecturers must assist them to realise this responsibility and support them in developing their skills. Lecturers should build students’ confidence, provide guidance, motivate them, lead by example as well as implement ground rules for them.

6.3.4.1 *Build confidence*

When students are confident, it tends to increase their employability and problem solving skills (cf. 5.3.7). Diverse teaching strategies and constant feedback helps build students’ confidence (cf. 2.5.3.3). Applying student-centred methods gives students the opportunity to discover their skills. Using real life scenarios in class helps students know what to expect from the work environment and builds their confidence by knowing that they are prepared.

Lecturers must build students’ confidence by giving them the freedom to work on their own in class and not overseeing their every move (cf. 5.3.4). This was emphasised by a focus group participant who said, “It helps that you give them that confidence to communicate with each other without someone constantly supervising them”[G2.4]. They must figure out solutions by themselves and lecturers must rather look at the end product than monitor

their every move. This will help them realise and remedy their own mistakes before assessment and builds confidence in their decision making ability.

Focussing only on the end product contradicts findings in Chapter 2 (cf. 2.5.3) where it was noted that to improve teamwork skills, lecturers must not only focus on the end product, but evaluate how team members work together during the process. Although the assessment of teamwork is important, it is also essential to build students' confidence by giving them the freedom to make mistakes and solve their own problems, hence indicating the importance of constantly varying methods as indicated in 6.3.1.2. It is important to construct assignments in such a way that students will not be able to complete the assignment alone, and the successful end product depends on members working together. Acknowledging students' work and giving them positive feedback (cf. 5.3.10) when they deserve it, will also encourage them and enhance their self-confidence.

6.3.4.2 *Provide guidance*

Lecturers must constantly provide guidance to students. This could be done in a formal or informal manner. Formal guidance includes providing assessment criteria which helps students to know what is expected from them. Lecturers must not only tell students what they expect from them and then assume they have learned the skill, but rather tell them what is expected and then explain or demonstrate the correct manner in which it must be done (cf. 2.5.3). This was supported by focus group participants (cf. 5.3.1) "guide them through assignments with the correct way of doing"[G1.3]. Guidance can also be provided in an informal manner (cf. 5.3.1), correcting students' speech or grammar and enhancing their vocabulary during informal conversation ("when they speak... correct them and help them to use the correct terms"[G2.4]) as well as written communication.

6.3.4.3 *Motivate*

Lecturers play an important role in motivating students. Lecturers must, for example, motivate students to speak English and take part in positive student life experiences including having diverse friends from various backgrounds and cultures, and to be part of committees on campus or extra-curricular activities where valuable skills are attained. Sufficient work experience must also be encouraged (cf. 2.5.3.4). Motivating students to have conversations inside and outside of the classroom could improve their communication skills (cf. 5.3.1). Creativity skills could also be enhanced by encouraging students to think

outside of the box, complimenting them when they are being creative and rewarding them with marks when they are performing well in an attempt to motivate them (cf. 5.3.10). Also, motivating students to complete tasks more successfully and providing constructive feedback will encourage better outcomes (cf. 2.6.6). Since elective modules which focus on specific employability skills could enhance the development of these skills (cf. 6.3.1.1), lecturers should also encourage students to enrol for such modules. Gaining experiences through travelling, using social media for communication and staying up to date with trends, reading as well as taking part in sport activities or having a hobby must also be encouraged (cf. 4.5).

6.3.4.4 *Lead by example*

A lecturer must be a role model to students and lead by example: "it is the way we handle it"[G1.3] and "showing them how to handle the situation"[G1.F] (cf. 5.3.8). The manner in which lecturers adapt to different situations will teach students how to adapt. Staying calm in certain situations teaches students how to conduct themselves. When lecturers constantly adapt to new trends and teach students new and relevant subject knowledge, it also sets an example and shows students that adaptability skills are useful in all work environments (cf. 2.4.8). It is therefore necessary that lecturers realise that they are leading by example and therefore they should always be professional. This must be kept in mind when providing feedback as well with informal communication including conversations and e-mails.

6.3.4.5 *Implementing ground rules*

In the focus group discussions, one participant made the comment "notify them before class, ... in the first period ... tell them this is how it's going to be"[G2.6] highlighting the importance of making sure students know the rules and what is expected of them (cf. 5.3.11). It is important that lecturers implement ground rules, including deadlines to assignments, and students must know that there are consequences when they do not follow the rules and reach the deadlines (cf. 5.3.11; 6.3.1.3; 6.3.1.4). Lecturers must be consistent when applying these rules and there should also be consistency between different lecturers to ensure students know what is expected of them and always deliver work of high standard (cf. 5.3.1). This was supported in focus group discussions "between the modules communication must take place to ensure it is assessed in the same way"[G2.F]. Lecturers must demand a high standard and expect students to always use

professional language, correct referencing and be precise in technical formatting when completing assignments. Furthermore, lecturers must insist on only accepting precise answers and must not give marks for vague answers since this will encourage students to write clearly and make sure they comprehend the work. Lecturers could also apply this in an informal setting where they only accept communication that is done in a professional manner including professionally written e-mails, requiring students to make appointments before arriving at a lecturer's office and making students aware of their vocabulary during conversations (cf. Chapter 5).

6.4 SUMMARY OF ENHANCING EMPLOYABILITY SKILLS OF CONSUMER SCIENCE GRADUATES

As seen in Figure 6.2, a variety of strategies are needed to ensure that consumer science students attain all the employability skills required by employers including educational experiences, extra-curricular experiences, lecturer, as well as student role.

To ensure that consumer science students attain the 11 employability skills identified in this study, and that cultural awareness is intertwined into each skill, a variety of strategies is recommended. It is advised that a compulsory module is included in the first year, which teaches students basic communication and ICT skills. These skills will then be applied throughout their studies. In addition, due to full curriculums, it is advised that elective modules or workshops focussing on specific skills are available to students, and lecturers encourage students to enrol for these modules or workshops. It is vital that lecturers plan together and embed all the aspects of the 11 identified skills into the different theoretical and practical modules. To ensure students are ready for employment, it is suggested that a capstone module or assignment in the last semester before graduating is included where students have the opportunity to apply all 11 employability skills in one project, to ensure employment readiness.

This study did not focus on changing the curricula, but rather on how to apply it in order to promote employability skills (cf. 1.2). Therefore using relevant strategies to enhance employability skills is important. Results clearly indicated that the best manner in which to teach employability skills is by using student-centred teaching methods where the lecturer facilitates the class, and the students are actively involved in the experience. These methods must constantly vary between classes and lecturers to help students learn different skills. Applying real life scenarios and making sure students work in diverse groups which

resemble the workplace will assure optimum skill attainment and enhance cultural awareness.

It is also important that lecturers expect students to deliver a wide range of written as well as verbal assignments according to fixed deadlines, which must be assessed. By giving students the opportunity to do peer assessment and self-assessment, they will be encouraged to be more involved in projects. By comparing students' self-assessment with assessments done by others, students could learn how to be more realistic when assessing their own work. It is important to make sure students know what is expected of them since this will also help them to realise not only the skills they need but also the skills they need to improve on. Always providing assessment criteria and using rubrics will assist the students in realising what is expected of them, and including employability skills into these criteria, will help consumer science students to focus more on the enhancement of these skills. Writing tests and exams is still a good method to help students apply their knowledge.

The framework also indicates that extra-curricular experiences are important to enhance employability skills, and therefore lecturers must inform students about the relevance of positive personal experiences, student life as well as work experience, and encourage these experiences. To ensure consumer science students gain sufficient skills, it is important that lecturers assess work experience to help students attain the relevant skills.

Lecturers play a vital role in the enhancement of employability skills and their role to guide, motivate, set an example and build students confidence is significant. It is important that lecturers set ground rules for students to realise what is expected of them and adhere to a certain standard. However, when students do not adhere to these rules, there must be consequences. The students' role is equally important for they must constantly reflect on their experiences to determine which skills they have attained and gather evidence of these skills. They also have a responsibility to develop their language skills.

6.5 CONCLUSION

This chapter included a framework which could be used by consumer science lecturers to enhance the 11 employability skills, as well as cultural awareness needed for career success as identified in this study. The 11 identified employability skills were described in order to clarify the different components of each skill as well as the importance of integrating cultural

awareness into each skill. This was followed by an explanation of the proposed framework (cf. Figure 6.2) which indicated the strategies to be used to develop and enhance employability skills of consumer science graduates. This framework included strategies which could be applied in class including educational experiences, as well as strategies that could enhance employability skills outside the classroom, namely extra-curricular experiences. The important role of the lecturer as well as the student's role towards attaining employability skills was highlighted.

In the next chapter, a final conclusion of the study will be presented. An overview of the reached objectives will be given, followed by the conclusion, limitations of the study, the contribution of the research, recommendations as well as a conclusive remark to finalise the thesis.

CHAPTER 7

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS OF THE STUDY

7.1 INTRODUCTION

This study aimed to construct a framework for employability skills of consumer science graduates. Employers are not satisfied with the skills graduates currently have (cf. 2.4; Chapter 4), and therefore such a framework is essential to ensure universities deliver employable consumer science graduates with sufficient skills as required by employers. High unemployment levels and particularly high graduate unemployment levels highlights the responsibility universities have to ensure their graduates are employable. Employers indicated that the education system fails to equip students with the correct skills (cf. 1.2); therefore, universities need to determine which skills employers require and deliver graduates with these skills to make sure they are employable.

Although technical skills and academic knowledge are important, employers require a different set of skills from their employees, referred to as employability skills (cf. 2.3.1). These skills are needed for all work sectors, although the importance of the different skills might vary between sectors. Since it is not known which specific employability skills South African employers require from consumer science graduates, the framework constructed in this study was needed to ensure that the required employability skills are taught to consumer science students. The questionnaire survey (cf. 4.4) found that consumer science students and graduates perceived themselves as more competent regarding the required skills compared to employers and lecturers. This highlights the importance of constructing a framework, which explains how the employability skills required by consumer science employers can be attained by students and/or enhanced by universities.

The aim of this chapter is to provide a summary of the study, including an overview of how each research question was answered. A final conclusion, limitations and contribution of the study including recommendations will also be included.

7.2 OVERVIEW OF THE STUDY

After an in-depth literature study, a mixed methods research design was used to address the aim of the study. The mixed methods approach included a quantitative phase (Phase 1)

during which consumer science lecturers, graduates, students as well as employers completed questionnaire surveys. The questionnaire survey determined which employability skills consumer science graduates should have to succeed in the work environment. The questionnaire survey also determined which skills consumer science students currently attain during their degree. It included questions regarding the teaching of these skills as well. Results were used to construct an interview schedule that was used in the qualitative phase of this study (Phase 2), consisting of focus group discussions with consumer science lecturers. The focus group discussions were done to determine how the skills required by employers as determined in the quantitative phase, could be taught to students, and what assessment methods must be used to ensure students have mastered these skills. The findings of the literature study, results from the questionnaire survey as well as findings from the focus group discussions were used to construct a framework for employability skills of consumer science graduates. Using more than one data collection method ensured a comprehensive framework, which would not have been possible by using only one method.

To reach the aim of this study, six research questions as seen in Chapter 1 (cf. 1.3) were formulated to guide the researcher. In the following section, each research question will be reviewed, including the main findings answering each question.

7.2.1 Research question 1

The first research question was stated as:

How can the employability skills of consumer science graduates be conceptualised and contextualised to form the theoretical framework for the study?

The following objective was pursued for the first research question:

To conceptualise and contextualise the employability skills of consumer science graduates (via a literature study) in order to compile a theoretical framework for the study.

In Chapter 2, **conceptualisation and contextualisation of the research subject were provided** by an in-depth literature study that was done to provide background knowledge regarding the employability skills of consumer science graduates. Since literature regarding the employability skills of consumer science graduates is limited,

background regarding the history of consumer sciences was given (cf. 2.2). This included an explanation of how the subject field adapted to changes in society (cf. 2.2.1), including how the name changed (cf. 2.2.1.1), where it fits in (cf. 2.2.1.2) as well as how the curriculum has evolved over the years (cf. 2.2.1.3). Understanding the history led to a description of the current subject field (cf. 2.3) including the skills graduates need (cf. 2.3.1) and what employers require from graduates (cf. 2.3.1.1). Since literature regarding employability skills of consumer science graduates is lacking, an overview was given relating to employability skills in general (cf. 2.4).

Constructing a comprehensive framework for employability skills of consumer science graduates includes more than only the different employability skills graduates must attain; therefore, information regarding the teaching and assessment of these skills was also studied. Consequently, Chapter 2 (cf. 2.5) also described how employability skills could be taught to students. This included information regarding the importance of teaching these skills (cf. 2.5.1) as well as the challenges faced by universities in attempting to teach these skills (cf. 2.5.2). A variety of teaching strategies were described which could be used to attain employability skills (cf. 2.5.3). It was found that student-centred teaching methods where students work in groups are the best teaching strategy to use ensuring that employability skills are obtained. Accordingly, different student-centred teaching methods were discussed (cf. 2.5.3). Furthermore, a complete framework will also include assessment methods which can be used to ensure that students have mastered the needed employability skills, and consequently different assessment methods were explored and discussed (cf. 2.6).

As seen in Figure 2.1 (cf. 2.1) all the important aspects explained above were included in the theoretical framework for the literature study and described in Chapter 2 in order to provide an in-depth background for this study.

7.2.2 Research question 2

The second research question was stated as:

Which employability skills do consumer science employers require from employees?

The following objective was pursued for the second research question:

To describe the employability skills consumer science employers require from employees (via questionnaire surveys).

Different employability skills were discussed in Chapter 2 (cf. 2.4); however, since literature regarding employability skills of consumer science graduates in South Africa could not be found, a questionnaire survey (cf. Chapter 4; Appendix B-E) was used to determine which employability skills consumer science employers require from their employees. Eleven employability skills were presented to respondents who had to indicate the importance of different aspects of each skill (cf. 4.4). The scores for the different aspects of the skills were added to determine the importance of each skill. Although perceptions regarding the importance of the different skills varied between respondents, all 11 skills presented to respondents were found to be important to extremely important by the majority of respondents. The 11 **employability skills consumer science employers require from employees** include communication skills, English language proficiency, information, communication and technology (ICT) skills, interpersonal skills, teamwork skills, leadership skills, problem solving skills, adaptability skills, risk taking skills, creativity skills and personal organisation and time management skills. Furthermore, results indicated that cultural awareness is essential for the consumer science graduate's work environment, and it must be integrated with the skills mentioned above.

7.2.3 Research question 3

The third research question was stated as:

Which employability skills do consumer science graduates have after graduation?

The following objective was pursued for the third research question:

To describe the employability skills consumer science graduates have after graduation (via questionnaire surveys).

In the literature study, it was noted that employers are not satisfied with the level of skills graduates possess after graduation (cf. 2.4). In order to determine whether or not this was also the case for consumer science graduates in South Africa, the questionnaire survey (cf. Chapter 4; Appendix B-E) asked respondents to rate the competency of graduates regarding different employability skills. The same 11 employability skills as explained above in

research question two (cf. 7.2.2) were presented to respondents, and after indicating how important they view the different components of each skill, respondents were also asked to indicate how competent graduates are concerning each component (cf. 4.4). This determined **which employability skills consumer science graduates have after graduation**. Graduates' competency regarding the different employability skills were rated differently among the four sample groups (cf. 4.4).

As seen in 4.4, students rated their own competency regarding employability skills to be very good to outstanding. Graduates showed similar results as they also rated themselves to be mostly competent regarding the different skills. Although employers did not rate graduates to be incompetent, they gave lower ratings than students and graduates. Employers rated most skill competencies as good to very good; however, they seldom indicated them to be outstanding. Lecturers gave even lower ratings than employers did; however, they seldom indicated that graduates' employability skills were poor. Significant differences in competency ratings were mainly found between students and employers (cf. 4.4.3). Students and graduates gave higher scores than employers and lecturers regarding skills competency. This indicated that students and graduates are under the impression that they have attained a higher level of employability skills during their studies than employers and lecturers think they have attained. There is apparently definitely room for improvement, signifying the importance of this study. Since employers blame the education system for not teaching students sufficient skills (cf. 1.2), the importance of knowing which skills to develop and how to teach and assess these skills is critical.

7.2.4 Research question 4

The fourth research question was stated as:

What teaching and learning strategies must be used by consumer science lecturers to teach the identified employability skills to consumer science students?

The following objective was pursued for the fourth research question:

To describe the teaching and learning strategies that must be used by consumer science lecturers to teach the identified employability skills to consumer science students (via focus group discussions).

Although the aim of the focus group discussions was to gather information regarding the teaching of employability skills, the literature study as well as results from the questionnaire survey also provided valuable insights regarding the strategies which can be used to enhance employability skills. In the literature study (cf. 2.5) a variety of teaching strategies were described which can be used to enhance students' employability skills. Furthermore, with the aim of constructing an interview schedule for the focus group discussions, the questionnaire survey included questions regarding strategies to attain employability skills (cf. 4.5.1). Different strategies were provided, and respondents could indicate which of the strategies in their view enhanced employability skills. Since different strategies were found to enhance different skills, a variety of strategies must be implemented, and were also discussed in focus group discussions (cf. Chapter 5).

The best way to teach employability skills to consumer science graduates is to use student-centred teaching methods where students are divided into diverse groups with different roles assigned to group members, and lecturers facilitate the learning process. It is also important to use real life problems in class to simulate the real work environment. However, it was found that teaching strategies used in class are only part of a strategy to enhance employability skills. To ensure that sufficient employability skills are obtained by students, a variety of strategies must be implemented. These include strategies to be used both in and outside the classroom environment. Giving students the opportunity for self as well as peer-assessment is important. Students must constantly reflect on their learning experiences, as well as receive regular feedback from lecturers and peers. This will help students to get a realistic view of their current skills, help them to identify where they need to improve and will also assist them to be more accurate during self-assessment.

7.2.5 Research question 5

The fifth research question was stated as:

What assessment methods must be used to ensure that consumer science students have mastered the identified employability skills?

The following objective was pursued for the fifth research question:

To describe what assessment methods must be used to ensure that consumer science students have mastered the identified employability skills (via focus group discussions).

Chapter 2 provided background regarding assessment methods (cf. 2.6) and in the focus group discussions (cf. Chapter 5) **assessment methods which could be used to ensure consumer science students have attained employability skills** were discussed. Findings indicated that assessing employability skills is complex, and a variety of factors must be considered when lecturers want to determine whether or not students have attained the needed skills. Assignments must always have deadlines, and consequences must be applied when students do not adhere to those deadlines. It was also noted that to get an accurate assessment of employability skills, especially of teamwork skills, peer assessment is often needed, and for students to realise which skills they have attained, self-assessment is also relevant. Regular feedback, as well as giving students the opportunity to compare their self-assessment with peer and lecturer assessment, will help students to identify their strengths and weaknesses and teach them how to accurately assess their own skills. To identify the level of skills students have attained, it is necessary to set assessment criteria beforehand, however, the criteria must include employability skills to force students to apply these skills. Furthermore, it is advised to use rubrics when assessing to indicate the level of skill attainment. Although a variety of new and innovative relevant assessment methods are used, traditional methods of assessment including tests and exams are still significant to ensure students have attained sufficient skills. To conclude, students must gather evidence when their skills are assessed as proof of the skills they have attained during their studies. It is important that lecturers provide regular feedback to students so that they are aware of the skills they are lacking and know where to improve.

7.2.6 Research question 6

The sixth research question was stated as:

How can a framework for employability skills of consumer science graduates be constructed?

The following objective was pursued for the sixth research question:

To construct a theoretical framework exemplifying the employability skills of consumer science graduates (via a literature study, questionnaire surveys and focus group discussions).

To **construct a framework exemplifying the employability skills of consumer science graduates**, the researcher aimed to include the teaching strategies and assessment methods needed to ensure that these skills have been attained. The framework initially described the employability skills required by consumer science employers (cf. 6.2.1), answering research question two. The second part of the framework included the strategies which can be used to enhance employability skills followed by the assessment methods which can be used to ensure these skills are obtained. The results from this study revealed a variety of strategies which could be implemented to ensure the attainment of employability skills. As seen in Figure 6.2 (cf. 6.3) these strategies include educational and extra-curricular experience, and students' as well as lecturers' roles.

Educational experience includes curriculum planning, teaching strategies, learning activities as well as assessment methods (cf. 6.3.1). Extra-curricular experience includes students' personal experiences, their student life as well as work experience (cf. 6.3.2). Students need to reflect on these experiences, gather evidence of the skills they have attained and take responsibility to improve their language skills (cf. 6.3.3). Lecturers play an important role to ensure students gain sufficient employability skills and need to build students' confidence, give them guidance, motivate them, lead by example and set ground rules (cf. 6.3.4). **A complete framework was thus constructed which exemplifies the employability skills of consumer science graduates** (cf. Chapter 6).

7.3 CONCLUSION

A combination of methods was used to construct a complete theoretical framework for employability skills of consumer science graduates, which could be implemented by lecturers to ensure graduates obtain sufficient employability skills. Due to the fact that the challenging, ever changing work environment requires employees with sufficient employability skills in order to succeed, it is important to realise which skills are required by consumer science employers. However, knowing which skills employers require is not enough. The work place is overflowing with applicants for job vacancies. Ensuring students attain employability skills during their degrees is essential to ensure graduates are employable. Since it is not known which employability skills consumer science graduates in South Africa need to succeed, this gap in literature was filled by constructing an employability skills framework which indicates the skills as required by consumer science

employers and includes the strategies which can be used to attain the needed skills and assess whether these have been attained.

To fill this gap in the literature, a mixed methods approach was followed, initiated by an in-depth literature study regarding the research topic (cf. Chapter 2). This was followed by a quantitative and qualitative research phase (sequential explanatory design). Questionnaire surveys were completed by consumer science students, graduates, lecturers and employers to determine the skills employers require and which are important for career success, as well as the skills graduates have attained (Phase 1: quantitative data). This was followed by focus group discussions with consumer science lecturers to determine how the skills determined in the questionnaire survey could be taught and assessed (Phase 2: qualitative data). The skills which were found to be important included communication skills, English language proficiency, information, communication and technology (ICT) skills, interpersonal skills, teamwork skills, leadership skills, problem solving skills, adaptability skills, risk taking skills, creativity skills and personal organisation and time management skills. Survey respondents also highlighted the importance of cultural awareness.

Good teaching and sound assessment are imperative and supported by the findings of this study. However, results from this study additionally revealed that the attainment of employability skills is not only enhanced through teaching and assessment strategies, but that a variety of strategies are required. Lecturers can therefore not assume that implementing certain teaching strategies in class will ensure that students obtain sufficient skills. It was found that strategies used both inside and outside the class environment enhance employability skills. These strategies include educational experience (cf. 6.3.1) (curriculum planning, teaching strategies, learning activities and assessment methods), extra-curricular experience (cf. 6.3.2) (personal experiences, student life and work experience), the student's role (cf. 6.3.3) (reflect on experiences, gathering evidence and develop language skills) and the lecturer's role (cf. 6.3.4) (build confidence, provide guidance, motivate, lead by example and implement ground rules).

7.4 LIMITATIONS OF THE STUDY

Although the researcher did everything in her capacity to minimise any limitations which may occur, some limitations did arise:

Six universities were identified that offer a consumer science degree in South Africa. Two of the institutions only offer a food consumer science degree and one institution only offers a distance learning programme, therefore these three universities were not included in the study. The other three universities identified offer an on-campus consumer science degree comprising of food as well as clothing domains and were included as the study population. However, only two of the chosen institutions agreed to take part in this study, which influenced the sample size.

The two universities included in this study are traditionally white Afrikaans universities, and although these universities have evolved (currently offering parallel-medium teaching in Afrikaans and English or translation services available for English speaking students), the majority of students are white and their home language is Afrikaans (cf.3.3.2.3).

Data gathering emerged just as the national "*#feesmustfall*" campaign started (a protest initiated by students against university fee increases). Lecturers could not enter the campus and had to read their e-mails at home, and this might have had an influence on the response rate of lecturers' questionnaire surveys.

Gathering the contact details of employer and graduate respondents was challenging. They were also reluctant to complete questionnaire surveys due to high workload. This influenced the sample size. The majority of respondents were students which may pose a limitation since students are not likely to share employers' opinions regarding employability skills.

The questionnaire survey produced a vast amount of results. Although the researcher presented all the data, all the aspects could not be discussed in detail. Data regarding the research questions were described comprehensively and additional data will be discussed in further publications.

Literature indicated that students tend to overestimate their own competency. Since this study also identified that students rated their competency higher than lecturers and employers, it can be noted that students' competency ratings could be overrated.

Constructing a framework is complex and the framework presented in Figure 6.2 is a recommendation on how employability skills could be implemented. Therefore, there may be different interpretations of the research findings leading to alternative frameworks.

7.5 CONTRIBUTION OF THE RESEARCH

The researcher is of the opinion that this research made a contribution to new knowledge by constructing a theoretical framework which can be implemented by lecturers to enhance the employability skills of consumer science graduates. This framework has two main components. Firstly, it provides comprehensive information regarding the employability skills consumer science employers require from consumer science graduates. After describing which skills are required, the framework describes the strategies which can be implemented to ensure the identified skills are acquired by students. This framework can assist consumer science lecturers to know which skills graduates need and lecturers may use this framework in their curriculums to help graduates obtain these skills. This might contribute to the employability of consumer science graduates, which will benefit graduates, universities, as well as employers. Universities may have a higher rate of employable graduates who are sought after by the industry improving the quality of their degrees and reputation of the university. Employers may employ workers who will positively influence their companies.

7.6 RECOMMENDATIONS

The researcher recommends the following:

- That a follow-up study with a larger sample is done. This could examine the factor structure of the scale more definitively
- That the findings of this study are made available to all institutions in South Africa who offer a Consumer Science degree
- That the framework constructed in this study is implemented by consumer science lecturers to ensure students obtain optimum employability skills during their graduate study
- That lecturers realise the important role they play in the enhancement of employability skills
- That other similar disciplines customise the framework in order to enhance their students' employability skills
- That the results of this study be presented at relevant national and international conferences
- That the results of this study are published in relevant accredited journals

- That further research is done focusing on specific consumer science domains (food or fashion)
- That further research is done on the framework by sending it to all the institutions in South Africa offering a degree in Consumer Science in order to evaluate the framework and gain valuable inputs. This could be done through a Delphi study
- The differences in reporting of students' competencies is something which can be studied further to assist students with self-assessment of their own competencies.
- Further studies can focus on the development of students' reflection and self-regulating skills. The findings from this study highlighting differences between student and lecturers' perceptions could guide areas that need revisiting regarding student recognition in terms of own strengths and weaknesses.

7.7 CONCLUSIVE REMARK

Employers are not satisfied with graduates' employability skills. To address this problem, this study identified 11 essential employability skills valued by South African consumer science employers. A framework was constructed which indicates how these skills can be attained by consumer science students. This framework indicates the importance of educational as well as extra-curricular experiences for skill attainment, as well as the important role lecturers and students play during the development of these skills. Implementing this framework could lead to more employable consumer science graduates who are highly sought after by employers.

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APPENDIX A:

**INFORMATION AND CONSENT DOCUMENT FOR QUESTIONNAIRE SURVEYS IN
ENGLISH AND AFRIKAANS**

**INFORMATION AND CONSENT DOCUMENT FOR QUESTIONNAIRE SURVEYS IN
ENGLISH AND AFRIKAANS**

**A FRAMEWORK FOR EMPLOYABILITY SKILLS OF CONSUMER SCIENCE
GRADUATES**

I, Minnet du Preez (under the supervision of Dr Lynette van der Merwe and Dr Sonet Kruger) am doing research regarding the employability skills of consumer science graduates entering the workplace. The purpose of this study is to construct an employability skills framework for consumer science graduates.

Employability skills

Employability skills refer to those non-technical/non-academic skills such as communication skills, teamwork and leadership skills of employees, enhancing work performance, job satisfaction and job success.

You are hereby invited to participate in this research study.

Different consumer science employers and consumer science lecturers, final-year consumer science students and graduates from two different universities will participate in this study. Participation involves completing a questionnaire regarding the employability skills employers require from graduates as well as indicating which employability skills graduates already possess when entering the workplace. The questionnaire will take approximately 15 minutes to complete. Consumer science lecturers completing these questionnaires will also be invited to be part of the second phase of the study. The second phase comprises of focus group discussions with consumer science lecturers on each campus, aiming to add in-depth information regarding the teaching and assessment methods of employability skills.

There are no risks or costs for participants associated with this study.

Results from this study will be communicated at relevant seminars and published in accredited journals and could be used in the consumer science curriculum, helping lecturers enhance the employability skills of graduates. This could lead to more equipped graduates (employees) in the future, benefitting not only the graduates (employees) but also the company they work for and also reflecting positively on the university.

Your participation in this study is completely voluntary and you may discontinue participation at any time without any consequences.

Confidentiality: No identifying information will be placed on the questionnaire and all answers you provide will be completely anonymous. All information collected about you during the course of this study will be kept without any identifiers including yourself and your company/university.

Contact details of the researcher: Should questions arise with regard to the study, please do not hesitate to contact me (Minnet du Preez). You can reach me at work 018 299 2479 or e-mail minnet.dupreez@nwu.ac.za.

Contact details of Secretariat and Chair: Ethics Committee of the Faculty of Health Sciences,
University of the Free State – for reporting of complaints/problems: Telephone number
(051) 4052812

By completing the questionnaire, I assume you agree to participate in this study.

'N RAAMWERK VIR INDIENSNEEMBAARHEIDSVAADIGHEDEN VAN VERBRUIKERSWETENSAPPE-GEGRADUEERDES

Ek, Minnet du Preez (onder studieleiding van dr. Lynette van der Merwe en dr. Sonet Kruger) doen navorsing oor die vaardighede van verbruikerswetenskappe-gegradueerdes wat die arbeidsmark betree. Die doel van die studie is om 'n raamwerk saam te stel van die indiensneembaarheidsvaardighede van verbruikerswetenskappe-gegradueerdes.

Indiensneembaarheidsvaardighede

Indiensneembaarheidsvaardighede verwys na die nie-tegniese/nie-akademiese vaardighede soos kommunikasievaardighede, spanwerk- en leierskapsvaardighede van werknemers met die doel om werkverrigting, werktevredenheid en werksukses te verbeter.

Hiermee word u genooi om aan die navorsingstudie deel te neem.

Verskeie verbruikerswetenskappe-werkgewers, -dosente, finalejaar verbruikerswetenskappe-studente en gegradueerdes van twee verskillende universiteite sal aan hierdie studie deelneem. Deelname behels die voltooiing van 'n vraelys met betrekking tot die indiensneembaarheidsvaardighede wat werkgewers van gegradueerdes vereis, asook watter indiensneembaarheidsvaardighede gegradueerdes reeds het wanneer hulle die werksplek betree. Die vraelys sal ongeveer 15 minute neem om te voltooi. Verbruikerswetenskappe-dosente wat hierdie vraelyste voltooi sal ook gevra word om aan die tweede fase van die studie deel te neem. Die tweede fase sluit fokusgroepbesprekings met verbruikerswetenskappe-dosente op elke kampus in, met die doel om inligting in te samel rakende die onderrig en assessering van indiensneembaarheidsvaardighede.

Daar is geen risiko of kostes verbonde aan deelname aan hierdie studie nie.

Resultate van hierdie studie sal by toepaslike seminare aangebied word asook in geakkrediteerde tydskrifte gepubliseer word. Dit kan ook in die verbruikerswetenskappe-kurrikulum gebruik word om dosente te help om relevante indiensneembaarheidsvaardighede aan studente te leer en kan lei tot meer toegeruste gegradueerdes (werknemers). Dit sal dus nie net vir die gegradueerdes (werknemers) voordelig wees nie maar ook vir die maatskappy by wie hul werk en terselfdertyd positief weerspieël op die universiteit wat toegeruste gegradueerdes aan die werksomgewing bied. Jou deelname aan die studie is volkome vrywillig en u kan te enige tyd onttrek, sonder enige gevolge.

Vertroulikheid: Daar sal nie gevra word om 'n naam op die vraelys te verskaf nie, dus sal al die antwoorde wat u verskaf anoniem wees. Alle inligting van hierdie studie wat oor u versamel word sal gehou word sonder enige identifiseerders insluitend jouself en jou maatskappy/universiteit.

Kontakbesonderhede van navorsers: Vir verdere inligting of enige vrae rakende die studie, moet asseblief nie huiwer om my (Minnet du Preez) te kontak nie. Werktelefoonnommer 018 299 2479 of e-pos minnet.dupreez@nwu.ac.za.

Kontakbesonderhede van die Sekretariaat en Voorsitter: Etiekkomitee van die Fakulteit Gesondheidswetenskappe, Universiteit van die Vrystaat – vir rapportering van klagtes/probleme: Telefoonnommer (051) 4052812

Deur die voltooiing van die vraelys neem ek aan dat u instem om aan hierdie studie deel te neem.

APPENDIX B:

QUESTIONNAIRE SURVEY: STUDENTS

Mark as shown: Please use a ball-point pen or a thin felt tip. This form will be processed automatically.
 Correction: Please follow the examples shown on the left hand side to help optimize the reading results.

1. Background information

Instruction: Please select the relevant answer/s

- 1.1 Are you currently a registered consumer science student? Yes No
- 1.2 What is your gender? Male Female
- 1.3 Which subjects do you major in?
 Fashion/Clothing Food Interior Design
 Consumer Behaviour General Consumer Sciences Other
- 1.4 Please specify which other
- 1.5 What is your race? Coloured Black Indian
 White Other
- 1.6 Other
- 1.7 How old are you?
- 1.8 Have you ever worked during holidays or did an internship? Yes No
- 1.9 At which University do you study? University of the Free State North West University, Potchefstroom Campus

2. From Question 3, please indicate your opinion and experience of your own employability skills as consumer science student. Please select the relevant box to indicate your choice.



3. Communication skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | Not very | Somewhat | Moderately | Important | Extremely |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 3.1 Speak clearly so that others understand. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.2 Write clearly so that others understand. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.3 Listen in order to understand instructions and views of others | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.4 Ask questions in order to understand instructions and views of others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.5 Express ideas verbally, one to one. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.6 Express ideas verbally, to groups. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.7 Make effective oral presentations. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.8 Put up a good logical argument to persuade others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **YOUR competency** regarding the following skills

- | | Poor | Fair | Good | Very Good | Outstanding |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 3.9 Speak clearly so that others understand. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.10 Write clearly so that others understand. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.11 Listen in order to understand instructions and views of others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.12 Ask questions in order to understand instructions and views of others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.13 Express ideas verbally, one to one. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.14 Express ideas verbally, to groups. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.15 Make effective oral presentations. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.16 Put up a good logical argument to persuade others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

4. English language proficiency

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | Not very | Somewhat | Moderately | Important | Extremely |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 4.1 Understand written information in books and documents such as manuals, graphs and schedules written in English. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.2 Create documents such as letters, directions, reports, graphs and flow charts in English. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.3 Communicate with colleagues in English. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.4 Do not shy away from using English when communicating. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.5 Have no problem in speaking English to others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



4. English language proficiency [Continue]

How would you rate **YOUR competency** regarding the following skills

	Poor	Fair	Good	Very Good	Outstanding
4.6 Understand written information in books and documents such as manuals, graphs and schedules written in English.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7 Create documents such as letters, directions, reports, graphs and flow charts in English.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.8 Communicate with colleagues in English.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.9 Do not shy away from using English when communicating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.10 Have no problem in speaking English to others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Information, Communication and Technology (ICT) skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

	Not very	Somewhat	Moderately	Important	Extremely
5.1 ICT knowledge in word processing (e.g.: to use simple editing, tables, header and footer, drawing tools and to create/save documents)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.2 ICT knowledge in spreadsheets (e.g.: to sort data, produce charts and graphs, input data in rows and columns, and display/hide formulae)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.3 ICT knowledge in handling presentations (e.g.: create a basic PowerPoint presentation, modify colours, texts and spaces on slides, incorporate a graph/chart, rearranging slides within a presentation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.4 ICT knowledge using the Internet (e.g.: use search engines to find information, download files from the internet, save text and images from web pages)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.5 ICT knowledge in emails (e.g.: send and receive e-mail messages, attach files to outgoing e-mails, open and save files attached to incoming e-mails, create a distribution list of contacts)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How would you rate **YOUR competency** regarding the following skills

	Poor	Fair	Good	Very Good	Outstanding
5.6 ICT knowledge in word processing (e.g.: to use simple editing, tables, header and footer, drawing tools and to create/save documents)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.7 ICT knowledge in spreadsheets (e.g.: to sort data, produce charts and graphs, input data in rows and columns, and display/hide formulae)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



5. Information, Communication and Technology (ICT) skills [Continue]

- | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 5.8 ICT knowledge in handling presentations (e.g.: create a basic PowerPoint presentation, modify colours, texts and spaces on slides, incorporate a graph/chart, rearranging slides within a presentation) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.9 ICT knowledge using the Internet (e.g.: use search engines to find information, download files from the internet, save text and images from web pages) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.10 ICT knowledge in emails (e.g.: send and receive e-mail messages, attach files to outgoing e-mails, open and save files attached to incoming e-mails, create a distribution list of contacts) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. Interpersonal skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | | | | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | Not very | | Somewhat | | Moderately | | Important | | Extremely |
| 6.1 Listen to other people's opinions. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.2 Working cooperatively with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.3 Communicating well with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.4 Getting along easily with people. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.5 Empathizing with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **YOUR competency** regarding the following skills

- | | | | | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | Poor | | Fair | | Good | | Very Good | | Outstanding |
| 6.6 Listen to other people's opinions. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.7 Working cooperatively with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.8 Communicating well with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.9 Getting along easily with people. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.10 Empathizing with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. Ability to work as a team

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | | | | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | Not very | | Somewhat | | Moderately | | Important | | Extremely |
| 7.1 Enjoy working as part of a team. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.2 Enjoy the 'give and take' policy of working in a group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.3 Willing to follow the norms and standards of the group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.4 Places the team goals ahead of own goals. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.5 Cooperate with fellow workers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



7. Ability to work as a team [Continue]

How would you rate **YOUR competency** regarding the following skills

- | | Poor | Fair | Good | Very Good | Outstanding |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 7.6 Enjoy working as part of a team. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.7 Enjoy the 'give and take' policy of working in a group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.8 Willing to follow the norms and standards of the group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.9 Places the team goals ahead of own goals. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.10 Cooperate with fellow workers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

8. Leadership skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | Not very | Somewhat | Moderately | Important | Extremely |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 8.1 Have the ability to lead people. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.2 Give direction and guidance to others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.3 Are willing to take ownership and responsibility for the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.4 Are able to motivate others to work for a common goal. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.5 Are able to delegate work to peers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **YOUR competency** regarding the following skills

- | | Poor | Fair | Good | Very Good | Outstanding |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 8.6 Have the ability to lead people. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.7 Give direction and guidance to others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.8 Are willing to take ownership and responsibility for the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.9 Are able to motivate others to work for a common goal. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.10 Are able to delegate work to peers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

9. Problem solving skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | Not very | Somewhat | Moderately | Important | Extremely |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 9.1 Are able to identify problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.2 Are successful in resolving conflicts with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.3 Find effective ways of solving problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.4 Solve problems without getting assistance from others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.5 Gather facts and information in finding the solution for problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



9. Problem solving skills [Continue]

How would you rate **YOUR competency** regarding the following skills

- | | Poor | Fair | Good | Very Good | Outstanding |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 9.6 Are able to identify problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.7 Are successful in resolving conflicts with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.8 Find effective ways of solving problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.9 Solve problems without getting assistance from others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.10 Gather facts and information in finding the solution for problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

10. Adaptability skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | Not very | Somewhat | Moderately | Important | Extremely |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 10.1 Are able to identify alternative ways to achieve goals and get the job done. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.2 Are able to suggest alternative ways to achieve goals and get the job done. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.3 Are able to cope with uncertainty. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.4 Prefer taking up new challenges and responsibilities. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.5 Are able to adapt to different situations. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.6 Are able to adapt to changes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **YOUR competency** regarding the following skills

- | | Poor | Fair | Good | Very Good | Outstanding |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 10.7 Are able to identify alternative ways to achieve goals and get the job done. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.8 Are able to suggest alternative ways to achieve goals and get the job done. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.9 Are able to cope with uncertainty. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.10 Prefer taking up new challenges and responsibilities. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.11 Are able to adapt to different situations. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.12 Are able to adapt to changes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



11. Risk taking skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | <input type="checkbox"/> | <input type="checkbox"/> | Not very | <input type="checkbox"/> | <input type="checkbox"/> | Somewhat | <input type="checkbox"/> | <input type="checkbox"/> | Moderately | <input type="checkbox"/> | <input type="checkbox"/> | Important | <input type="checkbox"/> | <input type="checkbox"/> | Extremely |
|--|--------------------------|--------------------------|----------|--------------------------|--------------------------|----------|--------------------------|--------------------------|------------|--------------------------|--------------------------|-----------|--------------------------|--------------------------|-----------|
| 11.1 Take reasonable job-related risks. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 11.2 Identify potential negative outcomes when considering risky ventures. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 11.3 Monitor progress toward objectives in risky ventures. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 11.4 Recognize alternate routes in meeting objectives. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 11.5 Accept challenging assignments. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |

How would you rate **YOUR competency** regarding the following skills

- | | <input type="checkbox"/> | <input type="checkbox"/> | Poor | <input type="checkbox"/> | <input type="checkbox"/> | Fair | <input type="checkbox"/> | <input type="checkbox"/> | Good | <input type="checkbox"/> | <input type="checkbox"/> | Very Good | <input type="checkbox"/> | <input type="checkbox"/> | Outstanding |
|--|--------------------------|--------------------------|------|--------------------------|--------------------------|------|--------------------------|--------------------------|------|--------------------------|--------------------------|-----------|--------------------------|--------------------------|-------------|
| 11.6 Take reasonable job-related risks. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 11.7 Identify potential negative outcomes when considering risky ventures. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 11.8 Monitor progress toward objectives in risky ventures. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 11.9 Recognize alternate routes in meeting objectives. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 11.10 Accept challenging assignments. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |

12. Creativity skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | <input type="checkbox"/> | <input type="checkbox"/> | Not very | <input type="checkbox"/> | <input type="checkbox"/> | Somewhat | <input type="checkbox"/> | <input type="checkbox"/> | Moderately | <input type="checkbox"/> | <input type="checkbox"/> | Important | <input type="checkbox"/> | <input type="checkbox"/> | Extremely |
|--|--------------------------|--------------------------|----------|--------------------------|--------------------------|----------|--------------------------|--------------------------|------------|--------------------------|--------------------------|-----------|--------------------------|--------------------------|-----------|
| 12.1 Provide novel solutions to problems. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 12.2 Adapt to situations of change. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 12.3 Initiate change to enhance productivity. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 12.4 Be creative to make suggestions to improve the job. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |

How would you rate **YOUR competency** regarding the following skills

- | | <input type="checkbox"/> | <input type="checkbox"/> | Poor | <input type="checkbox"/> | <input type="checkbox"/> | Fair | <input type="checkbox"/> | <input type="checkbox"/> | Good | <input type="checkbox"/> | <input type="checkbox"/> | Very Good | <input type="checkbox"/> | <input type="checkbox"/> | Outstanding |
|--|--------------------------|--------------------------|------|--------------------------|--------------------------|------|--------------------------|--------------------------|------|--------------------------|--------------------------|-----------|--------------------------|--------------------------|-------------|
| 12.5 Provide novel solutions to problems. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 12.6 Adapt to situations of change. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 12.7 Initiate change to enhance productivity. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |
| 12.8 Be creative to make suggestions to improve the job. | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |



13. Personal organization and time management skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | Not very | Somewhat | Moderately | Important | Extremely |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 13.1 Usually sets priorities. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.2 Allocates time efficiently. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.3 Able to meet deadlines. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.4 Able to arrive at work on time. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.5 Use time and materials to the best advantage of the company. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.6 Complete work in a thorough manner. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.7 Able to meet identified standards when performing a job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **YOUR competency** regarding the following skills

- | | Poor | Fair | Good | Very Good | Outstanding |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 13.8 Usually sets priorities. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.9 Allocates time efficiently. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.10 Able to meet deadlines. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.11 Able to arrive at work on time. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.12 Use time and materials to the best advantage of the company. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.13 Complete work in a thorough manner. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.14 Able to meet identified standards when performing a job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

13.15 Indicate which 3 skills would you say is most important for career success.

- | | | |
|---|---|---|
| <input type="checkbox"/> Communication skills | <input type="checkbox"/> English language proficiency | <input type="checkbox"/> Information, Communication and Technology (ICT) skills |
| <input type="checkbox"/> Interpersonal skills | <input type="checkbox"/> Ability to work as a team | <input type="checkbox"/> Leadership skills |
| <input type="checkbox"/> Problem solving skills | <input type="checkbox"/> Adaptability skills | <input type="checkbox"/> Risk taking skills |
| <input type="checkbox"/> Creativity skills | <input type="checkbox"/> Personal organization and time management skills | |

13.16 Which other skills (other than theoretical skills or the skills mentioned above) would you describe as important for a successful career?



14. Skills learned

If you already have the following skills, how would you say did you learn each skill (more than one option can be selected):

14.1 Communication skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.2 Please specify what other

14.3 English language proficiency

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.4 Please specify what other

14.5 Information, Communication and Technology (ICT) skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.6 Please specify what other

14.7 Interpersonal skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.8 Please specify what other

14.9 Ability to work as a team

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |



14. Skills learned [Continue]

14.10 Please specify what other

14.11 Leadership skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.12 Please specify what other

14.13 Problem solving skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.14 Please specify what other

14.15 Adaptability skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.16 Please specify what other

14.17 Risk taking skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.18 Please specify what other

14.19 Creativity skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |



14. Skills learned [Continue]

14.20 Please specify what other

14.21 Personal organization and time management skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.22 Please specify what other

Thank you for your participation in this study.



APPENDIX C:

QUESTIONNAIRE SURVEY: GRADUATES

Mark as shown: Please use a ball-point pen or a thin felt tip. This form will be processed automatically.
 Correction: Please follow the examples shown on the left hand side to help optimize the reading results.

1. Background information

Instruction: Please select the relevant answer/s

- 1.1 Have you completed your consumer science degree in the last 7 years? Yes No
- 1.2 What is your gender? Male Female
- 1.3 Which subjects did you major in?
 Fashion/Clothing Food Interior Design
 Consumer Behaviour General Consumer Sciences Other
- 1.4 Please specify which other
- 1.5 What is your race? Coloured Black Indian
 White Other
- 1.6 Other
- 1.7 How old are you?
- 1.8 What is your highest academic qualification? < Grade 10 Grade 10 Matric
 Diploma Degree Honours
 Masters PhD
- 1.9 At which University did you study?
 University of the Free State North West University, Potchefstroom Campus

2. From page 3 to 14, please indicate your opinion and experience of your own employability skills as consumer science graduate. Please select the relevant box to indicate your choice.

3. Communication skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | Not very | Somewhat | Moderately | Important | Extremely |
| 3.1 Speak clearly so that others understand. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.2 Write clearly so that others understand. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



3. Communication skills [Continue]

- | | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 3.3 Listen in order to understand instructions and views of others | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.4 Ask questions in order to understand instructions and views of others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.5 Express ideas verbally, one to one. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.6 Express ideas verbally, to groups. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.7 Make effective oral presentations. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.8 Put up a good logical argument to persuade others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **YOUR competency** regarding the following skills after graduation

- | | | | | | | | | | | |
|---|--------------------------|------|--------------------------|------|--------------------------|------|--------------------------|-----------|--------------------------|-------------|
| | | Poor | | Fair | | Good | | Very Good | | Outstanding |
| 3.9 Speak clearly so that others understand. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.10 Write clearly so that others understand. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.11 Listen in order to understand instructions and views of others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.12 Ask questions in order to understand instructions and views of others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.13 Express ideas verbally, one to one. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.14 Express ideas verbally, to groups. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.15 Make effective oral presentations. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.16 Put up a good logical argument to persuade others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |

4. English language proficiency

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | | | | | | | | | | |
|---|--------------------------|----------|--------------------------|----------|--------------------------|------------|--------------------------|-----------|--------------------------|-----------|
| | | Not very | | Somewhat | | Moderately | | Important | | Extremely |
| 4.1 Understand written information in books and documents such as manuals, graphs and schedules written in English. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 4.2 Create documents such as letters, directions, reports, graphs and flow charts in English. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 4.3 Communicate with colleagues in English. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 4.4 Do not shy away from using English when communicating. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 4.5 Have no problem in speaking English to others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |

How would you rate **YOUR competency** regarding the following skills after graduation

- | | | | | | | | | | | |
|---|--------------------------|------|--------------------------|------|--------------------------|------|--------------------------|-----------|--------------------------|-------------|
| | | Poor | | Fair | | Good | | Very Good | | Outstanding |
| 4.6 Understand written information in books and documents such as manuals, graphs and schedules written in English. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |



4. English language proficiency [Continue]

- | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 4.7 Create documents such as letters, directions, reports, graphs and flow charts in English. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.8 Communicate with colleagues in English. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.9 Do not shy away from using English when communicating. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.10 Have no problem in speaking English to others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. Information, Communication and Technology (ICT) skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | Not very | Somewhat | Moderately | Important | Extremely |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 5.1 ICT knowledge in word processing (e.g.: to use simple editing, tables, header and footer, drawing tools and to create/save documents) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.2 ICT knowledge in spreadsheets (e.g.: to sort data, produce charts and graphs, input data in rows and columns, and display/hide formulae) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.3 ICT knowledge in handling presentations (e.g.: create a basic PowerPoint presentation, modify colours, texts and spaces on slides, incorporate a graph/chart, rearranging slides within a presentation) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.4 ICT knowledge using the Internet (e.g.: use search engines to find information, download files from the internet, save text and images from web pages) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.5 ICT knowledge in emails (e.g.: send and receive e-mail messages, attach files to outgoing e-mails, open and save files attached to incoming e-mails, create a distribution list of contacts) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **YOUR competency** regarding the following skills after graduation

- | | Poor | Fair | Good | Very Good | Outstanding |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 5.6 ICT knowledge in word processing (e.g.: to use simple editing, tables, header and footer, drawing tools and to create/save documents) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.7 ICT knowledge in spreadsheets (e.g.: to sort data, produce charts and graphs, input data in rows and columns, and display/hide formulae) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.8 ICT knowledge in handling presentations (e.g.: create a basic PowerPoint presentation, modify colours, texts and spaces on slides, incorporate a graph/chart, rearranging slides within a presentation) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.9 ICT knowledge using the Internet (e.g.: use search engines to find information, download files from the internet, save text and images from web pages) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



5. Information, Communication and Technology (ICT) skills [Continue]

- 5.10 ICT knowledge in emails (e.g.: send and receive e-mail messages, attach files to outgoing e-mails, open and save files attached to incoming e-mails, create a distribution list of contacts)

6. Interpersonal skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | | Not very | Somewhat | Moderately | Important | Extremely |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6.1 Listen to other people's opinions. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.2 Working cooperatively with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.3 Communicating well with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.4 Getting along easily with people. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.5 Empathizing with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **YOUR competency** regarding the following skills after graduation

- | | | Poor | Fair | Good | Very Good | Outstanding |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6.6 Listen to other people's opinions. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.7 Working cooperatively with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.8 Communicating well with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.9 Getting along easily with people. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.10 Empathizing with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. Ability to work as a team

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | | Not very | Somewhat | Moderately | Important | Extremely |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 7.1 Enjoy working as part of a team. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.2 Enjoy the 'give and take' policy of working in a group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.3 Willing to follow the norms and standards of the group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.4 Places the team goals ahead of own goals. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.5 Cooperate with fellow workers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **YOUR competency** regarding the following skills after graduation



7. Ability to work as a team [Continue]

- | | | | | | | | | | |
|------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | | | | | | | | |
| | | | | | | | | | |
| 7.6 | Enjoy working as part of a team. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.7 | Enjoy the 'give and take' policy of working in a group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.8 | Willing to follow the norms and standards of the group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.9 | Places the team goals ahead of own goals. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.10 | Cooperate with fellow workers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

8. Leadership skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | | | | | | | | | |
|-----|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | | | | | | | | |
| | | | | | | | | | |
| 8.1 | Have the ability to lead people. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.2 | Give direction and guidance to others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.3 | Are willing to take ownership and responsibility for the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.4 | Are able to motivate others to work for a common goal. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.5 | Are able to delegate work to peers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **YOUR competency** regarding the following skills after graduation

- | | | | | | | | | | |
|------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | | | | | | | | |
| | | | | | | | | | |
| 8.6 | Have the ability to lead people. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.7 | Give direction and guidance to others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.8 | Are willing to take ownership and responsibility for the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.9 | Are able to motivate others to work for a common goal. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.10 | Are able to delegate work to peers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

9. Problem solving skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | | | | | | | | | |
|-----|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | | | | | | | | |
| | | | | | | | | | |
| 9.1 | Are able to identify problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.2 | Are successful in resolving conflicts with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.3 | Find effective ways of solving problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.4 | Solve problems without getting assistance from others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



9. Problem solving skills [Continue]

- 9.5 Gather facts and information in finding the solution for problems.

How would you rate **YOUR competency** regarding the following skills after graduation

- | | Poor | Fair | Good | Very Good | Outstanding |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 9.6 Are able to identify problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.7 Are successful in resolving conflicts with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.8 Find effective ways of solving problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.9 Solve problems without getting assistance from others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.10 Gather facts and information in finding the solution for problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

10. Adaptability skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | Not very | Somewhat | Moderately | Important | Extremely |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 10.1 Are able to identify alternative ways to achieve goals and get the job done. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.2 Are able to suggest alternative ways to achieve goals and get the job done. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.3 Are able to cope with uncertainty. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.4 Prefer taking up new challenges and responsibilities. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.5 Are able to adapt to different situations. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.6 Are able to adapt to changes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **YOUR competency** regarding the following skills after graduation

- | | Poor | Fair | Good | Very Good | Outstanding |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 10.7 Are able to identify alternative ways to achieve goals and get the job done. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.8 Are able to suggest alternative ways to achieve goals and get the job done. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.9 Are able to cope with uncertainty. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.10 Prefer taking up new challenges and responsibilities. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.11 Are able to adapt to different situations. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.12 Are able to adapt to changes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

11. Risk taking skills



11. Risk taking skills [Continue]

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | Not very | Somewhat | Moderately | Important | Extremely |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 11.1 Take reasonable job-related risks. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.2 Identify potential negative outcomes when considering risky ventures. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.3 Monitor progress toward objectives in risky ventures. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.4 Recognize alternate routes in meeting objectives. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.5 Accept challenging assignments. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **YOUR competency** regarding the following skills after graduation

- | | Poor | Fair | Good | Very Good | Outstanding |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 11.6 Take reasonable job-related risks. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.7 Identify potential negative outcomes when considering risky ventures. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.8 Monitor progress toward objectives in risky ventures. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.9 Recognize alternate routes in meeting objectives. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.10 Accept challenging assignments. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

12. Creativity skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | Not very | Somewhat | Moderately | Important | Extremely |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 12.1 Provide novel solutions to problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12.2 Adapt to situations of change. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12.3 Initiate change to enhance productivity. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12.4 Be creative to make suggestions to improve the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **YOUR competency** regarding the following skills after graduation

- | | Poor | Fair | Good | Very Good | Outstanding |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 12.5 Provide novel solutions to problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12.6 Adapt to situations of change. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12.7 Initiate change to enhance productivity. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12.8 Be creative to make suggestions to improve the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



13. Personal organization and time management skills

Rate the **importance** of the following skills you think is required of **newly employed consumer science graduates** for successful career performance

- | | | Not very | Somewhat | Moderately | Important | Extremely |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 13.1 Usually sets priorities. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.2 Allocates time efficiently. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.3 Able to meet deadlines. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.4 Able to arrive at work on time. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.5 Use time and materials to the best advantage of the company. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.6 Complete work in a thorough manner. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.7 Able to meet identified standards when performing a job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **YOUR competency** regarding the following skills after graduation

- | | | Poor | Fair | Good | Very Good | Outstanding |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 13.8 Usually sets priorities. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.9 Allocates time efficiently. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.10 Able to meet deadlines. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.11 Able to arrive at work on time. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.12 Use time and materials to the best advantage of the company. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.13 Complete work in a thorough manner. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.14 Able to meet identified standards when performing a job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13.15 Indicate which 3 skills would you say is most important for career success. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Communication skills | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Interpersonal skills | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Problem solving skills | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Creativity skills | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> English language proficiency | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Ability to work as a team | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Adaptability skills | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Personal organization and time management skills | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Information, Communication and Technology (ICT) skills | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Leadership skills | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Risk taking skills | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

13.16 Which other skills (other than theoretical skills or the skills mentioned above) would you describe as important for a successful career?

14. Skills learned

If you already have the following skills, how would you say did you learn each skill (**more than one option can be selected**):



14. Skills learned [Continue]**14.1 Communication skills**

- Group Assignments Oral Presentations Literature studies
 Being part of university, faculty or
hostel committees Part-time job or internship Other

14.2 Please specify what other

14.3 English language proficiency

- Group Assignments Oral Presentations Literature studies
 Being part of university, faculty or
hostel committees Part-time job or internship Other

14.4 Please specify what other

14.5 Information, Communication and Technology (ICT) skills

- Group Assignments Oral Presentations Literature studies
 Being part of university, faculty or
hostel committees Part-time job or internship Other

14.6 Please specify what other

14.7 Interpersonal skills

- Group Assignments Oral Presentations Literature studies
 Being part of university, faculty or
hostel committees Part-time job or internship Other

14.8 Please specify what other

14.9 Ability to work as a team

- Group Assignments Oral Presentations Literature studies
 Being part of university, faculty or
hostel committees Part-time job or internship Other

14.10 Please specify what other



14. Skills learned [Continue]**14.11 Leadership skills**

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.12 Please specify what other

14.13 Problem solving skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.14 Please specify what other

14.15 Adaptability skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.16 Please specify what other

14.17 Risk taking skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.18 Please specify what other

14.19 Creativity skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.20 Please specify what other



14. Skills learned [Continue]14.21 **Personal organization and time management skills**

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.22 Please specify what other

Thank you for your participation in this study.



APPENDIX D:

QUESTIONNAIRE SURVEY: LECTURERS

Mark as shown: Please use a ball-point pen or a thin felt tip. This form will be processed automatically.
 Correction: Please follow the examples shown on the left hand side to help optimize the reading results.

1. Background information

Instruction: Please select the relevant answer/s

- 1.1 Are you a consumer science academic staff member? Yes No
- 1.2 What is your gender? Male Female
- 1.3 Which subjects do you specialise in?
 Fashion/Clothing Food Interior Design
 Consumer Behaviour Other
- 1.4 Please specify which other
- 1.5 What is your race? Coloured Black Indian
 White Other
- 1.6 Other
- 1.7 How old are you?
- 1.8 What is your highest academic qualification? < Grade 10 Grade 10 Matric
 Diploma Degree Honours
 Masters PhD
- 1.9 What is your total years of work experience/employment?
- 1.10 Which students do you lecture?
 1st Years 2nd Years 3rd Years
 4th Years Post Graduates
- 1.11 At which University do you work?
 University of the Free State North West University, Potchefstroom Campus

2. From page 3 to 14, please indicate your opinion and experience of employability skills among consumer science graduates. We recognize that each student is different in their values, characteristics and skills; however, for purposes of this questionnaire, please consider your overall experience with consumer science graduates when responding to these questions. Please select the relevant box to indicate your choice.

3. Communication skills



3. Communication skills [Continue]

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance

- | | <input type="checkbox"/> | Not very | <input type="checkbox"/> | Somewhat | <input type="checkbox"/> | Moderately | <input type="checkbox"/> | Important | <input type="checkbox"/> | Extremely |
|--|--------------------------|----------|--------------------------|----------|--------------------------|------------|--------------------------|-----------|--------------------------|-----------|
| 3.1 Speak clearly so that others understand. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.2 Write clearly so that others understand. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.3 Listen in order to understand instructions and views of others | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.4 Ask questions in order to understand instructions and views of others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.5 Express ideas verbally, one to one. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.6 Express ideas verbally, to groups. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.7 Make effective oral presentations. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.8 Put up a good logical argument to persuade others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |

How would you rate **consumer science graduates competency** regarding the following skills at your University

- | | <input type="checkbox"/> | Poor | <input type="checkbox"/> | Fair | <input type="checkbox"/> | Good | <input type="checkbox"/> | Very Good | <input type="checkbox"/> | Outstanding |
|---|--------------------------|------|--------------------------|------|--------------------------|------|--------------------------|-----------|--------------------------|-------------|
| 3.9 Speak clearly so that others understand. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.10 Write clearly so that others understand. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.11 Listen in order to understand instructions and views of others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.12 Ask questions in order to understand instructions and views of others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.13 Express ideas verbally, one to one. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.14 Express ideas verbally, to groups. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.15 Make effective oral presentations. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3.16 Put up a good logical argument to persuade others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |

4. English language proficiency

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance

- | | <input type="checkbox"/> | Not very | <input type="checkbox"/> | Somewhat | <input type="checkbox"/> | Moderately | <input type="checkbox"/> | Important | <input type="checkbox"/> | Extremely |
|---|--------------------------|----------|--------------------------|----------|--------------------------|------------|--------------------------|-----------|--------------------------|-----------|
| 4.1 Understand written information in books and documents such as manuals, graphs and schedules written in English. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 4.2 Create documents such as letters, directions, reports, graphs and flow charts in English. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 4.3 Communicate with colleagues in English. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 4.4 Do not shy away from using English when communicating. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |

4. English language proficiency [Continue]

4.5 Have no problem in speaking English to others.

How would you rate **consumer science graduates competency** regarding the following skills at your University

- | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | Poor | Fair | Good | Very Good | Outstanding |
| 4.6 Understand written information in books and documents such as manuals, graphs and schedules written in English. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.7 Create documents such as letters, directions, reports, graphs and flow charts in English. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.8 Communicate with colleagues in English. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.9 Do not shy away from using English when communicating. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.10 Have no problem in speaking English to others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. Information, Communication and Technology (ICT) skills

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance

- | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | Not very | Somewhat | Moderately | Important | Extremely |
| 5.1 ICT knowledge in word processing (e.g.: to use simple editing, tables, header and footer, drawing tools and to create/save documents) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.2 ICT knowledge in spreadsheets (e.g.: to sort data, produce charts and graphs, input data in rows and columns, and display/hide formulae) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.3 ICT knowledge in handling presentations (e.g.: create a basic PowerPoint presentation, modify colours, texts and spaces on slides, incorporate a graph/chart, rearranging slides within a presentation) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.4 ICT knowledge using the Internet (e.g.: use search engines to find information, download files from the internet, save text and images from web pages) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.5 ICT knowledge in emails (e.g.: send and receive e-mail messages, attach files to outgoing e-mails, open and save files attached to incoming e-mails, create a distribution list of contacts) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **consumer science graduates competency** regarding the following skills at your University

- | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | Poor | Fair | Good | Very Good | Outstanding |
| 5.6 ICT knowledge in word processing (e.g.: to use simple editing, tables, header and footer, drawing tools and to create/save documents) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



5. Information, Communication and Technology (ICT) skills [Continue]

- | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 5.7 ICT knowledge in spreadsheets (e.g.: to sort data, produce charts and graphs, input data in rows and columns, and display/hide formulae) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.8 ICT knowledge in handling presentations (e.g.: create a basic PowerPoint presentation, modify colours, texts and spaces on slides, incorporate a graph/chart, rearranging slides within a presentation) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.9 ICT knowledge using the Internet (e.g.: use search engines to find information, download files from the internet, save text and images from web pages) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.10 ICT knowledge in emails (e.g.: send and receive e-mail messages, attach files to outgoing e-mails, open and save files attached to incoming e-mails, create a distribution list of contacts) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. Interpersonal skills

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance

- | | | | | | | | | | | |
|--|--------------------------|----------|--------------------------|----------|--------------------------|------------|--------------------------|-----------|--------------------------|--------------------------|
| | | Not very | | Somewhat | | Moderately | | Important | | Extremely |
| 6.1 Listen to other people's opinions. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.2 Working cooperatively with others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.3 Communicating well with others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.4 Getting along easily with people. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.5 Empathizing with others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **consumer science graduates competency** regarding the following skills at your University

- | | | | | | | | | | | |
|--|--------------------------|------|--------------------------|------|--------------------------|------|--------------------------|-----------|--------------------------|--------------------------|
| | | Poor | | Fair | | Good | | Very Good | | Outstanding |
| 6.6 Listen to other people's opinions. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.7 Working cooperatively with others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.8 Communicating well with others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.9 Getting along easily with people. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.10 Empathizing with others. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> |

7. Ability to work as a team

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance

- | | | | | | | | | | | |
|--|--|----------|--|----------|--|------------|--|-----------|--|-----------|
| | | Not very | | Somewhat | | Moderately | | Important | | Extremely |
|--|--|----------|--|----------|--|------------|--|-----------|--|-----------|



7. Ability to work as a team [Continue]

- | | | | | | | |
|-----|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 7.1 | Enjoy working as part of a team. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.2 | Enjoy the 'give and take' policy of working in a group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.3 | Willing to follow the norms and standards of the group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.4 | Places the team goals ahead of own goals. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.5 | Cooperate with fellow workers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **consumer science graduates competency** regarding the following skills at your University

- | | | | | | | | |
|------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | | Poor | Fair | Good | Very Good | Outstanding |
| 7.6 | Enjoy working as part of a team. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.7 | Enjoy the 'give and take' policy of working in a group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.8 | Willing to follow the norms and standards of the group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.9 | Places the team goals ahead of own goals. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.10 | Cooperate with fellow workers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

8. Leadership skills

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance

- | | | | | | | | |
|-----|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | | Not very | Somewhat | Moderately | Important | Extremely |
| 8.1 | Have the ability to lead people. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.2 | Give direction and guidance to others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.3 | Are willing to take ownership and responsibility for the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.4 | Are able to motivate others to work for a common goal. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.5 | Are able to delegate work to peers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **consumer science graduates competency** regarding the following skills at your University

- | | | | | | | | |
|------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | | Poor | Fair | Good | Very Good | Outstanding |
| 8.6 | Have the ability to lead people. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.7 | Give direction and guidance to others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.8 | Are willing to take ownership and responsibility for the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.9 | Are able to motivate others to work for a common goal. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.10 | Are able to delegate work to peers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

9. Problem solving skills

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance



9. Problem solving skills [Continue]

- | | | | | | | | | | |
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How would you rate **consumer science graduates competency** regarding the following skills at your University

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10. Adaptability skills

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance

- | | | | | | | | | | |
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How would you rate **consumer science graduates competency** regarding the following skills at your University

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10. Adaptability skills [Continue]

- | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 10.9 Are able to cope with uncertainty. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.10 Prefer taking up new challenges and responsibilities. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.11 Are able to adapt to different situations. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.12 Are able to adapt to changes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

11. Risk taking skills

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance

- | | | | | | | | | | | |
|--|--------------------------|----------|--------------------------|----------|--------------------------|------------|--------------------------|-----------|--------------------------|-----------|
| | | Not very | | Somewhat | | Moderately | | Important | | Extremely |
| 11.1 Take reasonable job-related risks. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 11.2 Identify potential negative outcomes when considering risky ventures. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 11.3 Monitor progress toward objectives in risky ventures. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 11.4 Recognize alternate routes in meeting objectives. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 11.5 Accept challenging assignments. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |

How would you rate **consumer science graduates competency** regarding the following skills at your University

- | | | | | | | | | | | |
|--|--------------------------|------|--------------------------|------|--------------------------|------|--------------------------|-----------|--------------------------|-------------|
| | | Poor | | Fair | | Good | | Very Good | | Outstanding |
| 11.6 Take reasonable job-related risks. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 11.7 Identify potential negative outcomes when considering risky ventures. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 11.8 Monitor progress toward objectives in risky ventures. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 11.9 Recognize alternate routes in meeting objectives. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 11.10 Accept challenging assignments. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |

12. Creativity skills

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance

- | | | | | | | | | | | |
|--|--------------------------|----------|--------------------------|----------|--------------------------|------------|--------------------------|-----------|--------------------------|-----------|
| | | Not very | | Somewhat | | Moderately | | Important | | Extremely |
| 12.1 Provide novel solutions to problems. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 12.2 Adapt to situations of change. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 12.3 Initiate change to enhance productivity. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 12.4 Be creative to make suggestions to improve the job. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |

How would you rate **consumer science graduates competency** regarding the following skills at your University



12. Creativity skills [Continue]

	<input type="checkbox"/> Poor	<input type="checkbox"/> Fair	<input type="checkbox"/> Good	<input type="checkbox"/> Very Good	<input type="checkbox"/> Outstanding
12.5 Provide novel solutions to problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.6 Adapt to situations of change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.7 Initiate change to enhance productivity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.8 Be creative to make suggestions to improve the job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. Personal organization and time management skills

Rate the importance of the following skills required of newly employed graduates for successful career performance

	<input type="checkbox"/> Not very	<input type="checkbox"/> Somewhat	<input type="checkbox"/> Moderately	<input type="checkbox"/> Important	<input type="checkbox"/> Extremely
13.1 Usually sets priorities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.2 Allocates time efficiently.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.3 Able to meet deadlines.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.4 Able to arrive at work on time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.5 Use time and materials to the best advantage of the company.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.6 Complete work in a thorough manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.7 Able to meet identified standards when performing a job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How would you rate consumer science graduates competency regarding the following skills at your University

	<input type="checkbox"/> Poor	<input type="checkbox"/> Fair	<input type="checkbox"/> Good	<input type="checkbox"/> Very Good	<input type="checkbox"/> Outstanding
13.8 Usually sets priorities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.9 Allocates time efficiently.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.10 Able to meet deadlines.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.11 Able to arrive at work on time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.12 Use time and materials to the best advantage of the company.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.13 Complete work in a thorough manner.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.14 Able to meet identified standards when performing a job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.15 Indicate which 3 skills would you say is most important for career success.					
<input type="checkbox"/> Communication skills	<input type="checkbox"/> English language proficiency	<input type="checkbox"/> Information, Communication and Technology (ICT) skills			
<input type="checkbox"/> Interpersonal skills	<input type="checkbox"/> Ability to work as a team	<input type="checkbox"/> Leadership skills			
<input type="checkbox"/> Problem solving skills	<input type="checkbox"/> Adaptability skills	<input type="checkbox"/> Risk taking skills			
<input type="checkbox"/> Creativity skills	<input type="checkbox"/> Personal organization and time management skills				



13. Personal organization and time management skills [Continue]

13.16 Which other skills (other than theoretical skills or the skills mentioned above) would you describe as important for a successful career?

14. Skills learned

If graduates already have the following skills, how would you say did they learn each skill (more than one option can be selected):

14.1 Communication skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.2 Please specify what other

14.3 English language proficiency

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.4 Please specify what other

14.5 Information, Communication and Technology (ICT) skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.6 Please specify what other

14.7 Interpersonal skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |



14. Skills learned [Continue]

14.8 Please specify what other

14.9 Ability to work as a team

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.10 Please specify what other

14.11 Leadership skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.12 Please specify what other

14.13 Problem solving skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.14 Please specify what other

14.15 Adaptability skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.16 Please specify what other

14.17 Risk taking skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |



14. Skills learned [Continue]

14.18 Please specify what other

14.19 Creativity skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.20 Please specify what other

14.21 Personal organization and time management skills

- | | | |
|---|--|---|
| <input type="checkbox"/> Group Assignments | <input type="checkbox"/> Oral Presentations | <input type="checkbox"/> Literature studies |
| <input type="checkbox"/> Being part of university, faculty or hostel committees | <input type="checkbox"/> Part-time job or internship | <input type="checkbox"/> Other |

14.22 Please specify what other

Thank you for your participation in this study.



APPENDIX E:

QUESTIONNAIRE SURVEY: EMPLOYERS

Mark as shown: Please use a ball-point pen or a thin felt tip. This form will be processed automatically.
 Correction: Please follow the examples shown on the left hand side to help optimize the reading results.

1. Background information

Instruction: Please select the relevant answer/s

- 1.1 Have you ever employed **OR** work(ed) with newly employed consumer science graduates? Yes No
- 1.2 What is your gender? Male Female
- 1.3 Which industry do you work in?
 Fashion/Clothing Food Interior Design
 Marketing Other
- 1.4 Please specify which other
- 1.5 What is your race? Coloured Black Indian
 White Other
- 1.6 Please specify other
- 1.7 How old are you?
- 1.8 What is your highest academic qualification? < Grade 10 Grade 10 Matric
 Diploma Degree Honours
 Masters PhD
- 1.9 How many years of work experience do you have?
- 1.10 What is your job position? Top Management Middle Management Supervisor
 Other
- 1.11 Please specify what other
- 1.12 The majority of your consumer science employees are from? University of the Free State North West University, Potchefstroom Campus University of Pretoria
 I don't know Other



2. From page 3 to 13, please indicate your requirements and experience of employability skills among new employees with a Consumer Science degree. We recognize that each worker is different in their values, characteristics and skills; however, for the purposes of this questionnaire, please consider your overall experience with new consumer science graduates when responding to these questions. Please select the appropriate scale value to indicate your choice.

3. Communication skills

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance at your company

	Not very	Somewhat	Moderately	Important	Extremely
3.1 Speak clearly so that others understand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2 Write clearly so that others understand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3 Listen in order to understand instructions and views of others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4 Ask questions in order to understand instructions and views of others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.5 Express ideas verbally, one to one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.6 Express ideas verbally, to groups.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.7 Make effective oral presentations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.8 Put up a good logical argument to persuade others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How would you rate **consumer science employees competency** regarding the following skills

	Poor	Fair	Good	Very Good	Outstanding
3.9 Speak clearly so that others understand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.10 Write clearly so that others understand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.11 Listen in order to understand instructions and views of others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.12 Ask questions in order to understand instructions and views of others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.13 Express ideas verbally, one to one.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.14 Express ideas verbally, to groups.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.15 Make effective oral presentations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.16 Put up a good logical argument to persuade others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. English language proficiency

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance at your company

4. English language proficiency [Continue]

- | | Not very | Somewhat | Moderately | Important | Extremely |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 4.1 Understand written information in books and documents such as manuals, graphs and schedules written in English. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.2 Create documents such as letters, directions, reports, graphs and flow charts in English. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.3 Communicate with colleagues in English. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.4 Do not shy away from using English when communicating. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.5 Have no problem in speaking English to others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **consumer science employees competency** regarding the following skills

- | | Poor | Fair | Good | Very Good | Outstanding |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 4.6 Understand written information in books and documents such as manuals, graphs and schedules written in English. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.7 Create documents such as letters, directions, reports, graphs and flow charts in English. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.8 Communicate with colleagues in English. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.9 Do not shy away from using English when communicating. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.10 Have no problem in speaking English to others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. Information, Communication and Technology (ICT) skills

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance at your company

- | | Not very | Somewhat | Moderately | Important | Extremely |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 5.1 ICT knowledge in word processing (e.g.: to use simple editing, tables, header and footer, drawing tools and to create/save documents) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.2 ICT knowledge in spreadsheets (e.g.: to sort data, produce charts and graphs, input data in rows and columns, and display/hide formulae) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.3 ICT knowledge in handling presentations (e.g.: create a basic PowerPoint presentation, modify colours, texts and spaces on slides, incorporate a graph/chart, rearranging slides within a presentation) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.4 ICT knowledge using the Internet (e.g.: use search engines to find information, download files from the internet, save text and images from web pages) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.5 ICT knowledge in emails (e.g.: send and receive e-mail messages, attach files to outgoing e-mails, open and save files attached to incoming e-mails, create a distribution list of contacts) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. Information, Communication and Technology (ICT) skills [Continue]

How would you rate **consumer science employees competency** regarding the following skills

- | | Poor | Fair | Good | Very Good | Outstanding |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 5.6 ICT knowledge in word processing (e.g.: to use simple editing, tables, header and footer, drawing tools and to create/save documents) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.7 ICT knowledge in spreadsheets (e.g.: to sort data, produce charts and graphs, input data in rows and columns, and display/hide formulae) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.8 ICT knowledge in handling presentations (e.g.: create a basic PowerPoint presentation, modify colours, texts and spaces on slides, incorporate a graph/chart, rearranging slides within a presentation) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.9 ICT knowledge using the Internet (e.g.: use search engines to find information, download files from the internet, save text and images from web pages) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.10 ICT knowledge in emails (e.g.: send and receive e-mail messages, attach files to outgoing e-mails, open and save files attached to incoming e-mails, create a distribution list of contacts) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. Interpersonal skills

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance at your company

- | | Not very | Somewhat | Moderately | Important | Extremely |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6.1 Listen to other people's opinions. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.2 Working cooperatively with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.3 Communicating well with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.4 Getting along easily with people. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.5 Empathizing with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **consumer science employees competency** regarding the following skills

- | | Poor | Fair | Good | Very Good | Outstanding |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6.6 Listen to other people's opinions. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.7 Working cooperatively with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.8 Communicating well with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.9 Getting along easily with people. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.10 Empathizing with others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. Ability to work as a team



7. Ability to work as a team [Continue]

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance at your company

- | | | Not very | Somewhat | Moderately | Important | Extremely |
|-----|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 7.1 | Enjoy working as part of a team. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.2 | Enjoy the 'give and take' policy of working in a group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.3 | Willing to follow the norms and standards of the group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.4 | Places the team goals ahead of own goals. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.5 | Cooperate with fellow workers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **consumer science employees competency** regarding the following skills

- | | | Poor | Fair | Good | Very Good | Outstanding |
|------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 7.6 | Enjoy working as part of a team. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.7 | Enjoy the 'give and take' policy of working in a group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.8 | Willing to follow the norms and standards of the group. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.9 | Places the team goals ahead of own goals. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.10 | Cooperate with fellow workers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

8. Leadership skills

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance at your company

- | | | Not very | Somewhat | Moderately | Important | Extremely |
|-----|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 8.1 | Have the ability to lead people. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.2 | Give direction and guidance to others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.3 | Are willing to take ownership and responsibility for the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.4 | Are able to motivate others to work for a common goal. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.5 | Are able to delegate work to peers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **consumer science employees competency** regarding the following skills

- | | | Poor | Fair | Good | Very Good | Outstanding |
|-----|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 8.6 | Have the ability to lead people. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.7 | Give direction and guidance to others. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.8 | Are willing to take ownership and responsibility for the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8.9 | Are able to motivate others to work for a common goal. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



8. Leadership skills [Continue]

8.10 Are able to delegate work to peers.

9. Problem solving skills

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance at your company

	Not very	Somewhat	Moderately	Important	Extremely
9.1 Are able to identify problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2 Are successful in resolving conflicts with others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.3 Find effective ways of solving problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.4 Solve problems without getting assistance from others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.5 Gather facts and information in finding the solution for problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How would you rate **consumer science employees competency** regarding the following skills

	Poor	Fair	Good	Very Good	Outstanding
9.6 Are able to identify problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.7 Are successful in resolving conflicts with others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.8 Find effective ways of solving problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.9 Solve problems without getting assistance from others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.10 Gather facts and information in finding the solution for problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Adaptability skills

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance at your company

	Not very	Somewhat	Moderately	Important	Extremely
10.1 Are able to identify alternative ways to achieve goals and get the job done.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.2 Are able to suggest alternative ways to achieve goals and get the job done.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.3 Are able to cope with uncertainty.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.4 Prefer taking up new challenges and responsibilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.5 Are able to adapt to different situations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.6 Are able to adapt to changes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How would you rate **consumer science employees competency** regarding the following skills



10. **Adaptability skills** [Continue]

- | | | | | | | |
|-------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | Poor | Fair | Good | Very Good | Outstanding |
| 10.7 | Are able to identify alternative ways to achieve goals and get the job done. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.8 | Are able to suggest alternative ways to achieve goals and get the job done. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.9 | Are able to cope with uncertainty. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.10 | Prefer taking up new challenges and responsibilities. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.11 | Are able to adapt to different situations. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10.12 | Are able to adapt to changes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

11. **Risk taking skills**

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance at your company

- | | | | | | | |
|------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | Not very | Somewhat | Moderately | Important | Extremely |
| 11.1 | Take reasonable job-related risks. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.2 | Identify potential negative outcomes when considering risky ventures. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.3 | Monitor progress toward objectives in risky ventures. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.4 | Recognize alternate routes in meeting objectives. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.5 | Accept challenging assignments. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **consumer science employees competency** regarding the following skills

- | | | | | | | |
|-------|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | Poor | Fair | Good | Very Good | Outstanding |
| 11.6 | Take reasonable job-related risks. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.7 | Identify potential negative outcomes when considering risky ventures. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.8 | Monitor progress toward objectives in risky ventures. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.9 | Recognize alternate routes in meeting objectives. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11.10 | Accept challenging assignments. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

12. **Creativity skills**

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance at your company

- | | | | | |
|----------|----------|------------|-----------|-----------|
| Not very | Somewhat | Moderately | Important | Extremely |
|----------|----------|------------|-----------|-----------|

12. Creativity skills [Continue]

- | | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 12.1 Provide novel solutions to problems. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12.2 Adapt to situations of change. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12.3 Initiate change to enhance productivity. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12.4 Be creative to make suggestions to improve the job. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How would you rate **consumer science employees competency** regarding the following skills

- | | | | | | | | | | | |
|--|--------------------------|------|--------------------------|------|--------------------------|------|--------------------------|-----------|--------------------------|-------------|
| | | Poor | | Fair | | Good | | Very Good | | Outstanding |
| 12.5 Provide novel solutions to problems. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 12.6 Adapt to situations of change. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 12.7 Initiate change to enhance productivity. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 12.8 Be creative to make suggestions to improve the job. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |

13. Personal organization and time management skills

Rate the **importance** of the following skills required of **newly employed graduates** for successful career performance at your company

- | | | | | | | | | | | |
|---|--------------------------|----------|--------------------------|----------|--------------------------|------------|--------------------------|-----------|--------------------------|-----------|
| | | Not very | | Somewhat | | Moderately | | Important | | Extremely |
| 13.1 Usually sets priorities. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 13.2 Allocates time efficiently. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 13.3 Able to meet deadlines. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 13.4 Able to arrive at work on time. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 13.5 Use time and materials to the best advantage of the company. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 13.6 Complete work in a thorough manner. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 13.7 Able to meet identified standards when performing a job. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |

How would you rate **consumer science employees competency** regarding the following skills

- | | | | | | | | | | | |
|--|--------------------------|------|--------------------------|------|--------------------------|------|--------------------------|-----------|--------------------------|-------------|
| | | Poor | | Fair | | Good | | Very Good | | Outstanding |
| 13.8 Usually sets priorities. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 13.9 Allocates time efficiently. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 13.10 Able to meet deadlines. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 13.11 Able to arrive at work on time. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 13.12 Use time and materials to the best advantage of the company. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 13.13 Complete work in a thorough manner. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 13.14 Able to meet identified standards when performing a job. | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | | <input type="checkbox"/> | |



13. Personal organization and time management skills [Continue]

13.15 Indicate which 3 skills would you say is most important for career success.

- | | | |
|---|---|---|
| <input type="checkbox"/> Communication skills | <input type="checkbox"/> English language proficiency | <input type="checkbox"/> Information, Communication and Technology (ICT) skills |
| <input type="checkbox"/> Interpersonal skills | <input type="checkbox"/> Ability to work as a team | <input type="checkbox"/> Leadership skills |
| <input type="checkbox"/> Problem solving skills | <input type="checkbox"/> Adaptability skills | <input type="checkbox"/> Risk taking skills |
| <input type="checkbox"/> Creativity skills | <input type="checkbox"/> Personal organization and time management skills | |

13.16 Which other skills (other than theoretical skills or the skills mentioned above) would you describe as important for a successful career?

Thank you for your participation in this study.



APPENDIX F:

SIGNED APPROVAL FORMS FROM UNIVERSITY AUTHORITIES

**APPROVAL FORM: NWU AUTHORITIES /
GOEDKEURINGSVORM: NWU OWERHEDE**

FOR PARTICIPATION OF STUDENTS/STAFF IN RESEARCH PROJECTS
VIR DEELNAME VAN STUDENTE/PERSONEEL AAN NAVORSINGSPROJEKTE

Name & student/ staff number
Naam & studente-/personeelnr Minnet du Preez 2013205881
 Department
Departement Health Professions Education
 Tel nr & e-mail
Tel nr & e-pos 018 299 2479 minnet.dupreez@nwu.ac.za
 Study leader(s)
Studieleier(s) Dr. Lynette van der Merwe Tel: 051 405 3107
Dr. Sonet Kruger Tel: 051 405 2846

Title of project / *Titel van projek*

A FRAMEWORK FOR EMPLOYABILITY SKILLS OF CONSUMER SCIENCE GRADUATES

Who will be involved in the study? Please tick (✓) in appropriate box. /
 Wie sal by die studie betrek word? Merk (✓) asseblief in die gepaste blokkie.

	YES / JA	NO / NEE		YES / JA	NO / NEE
Personnel <i>Personeel</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Students <i>Studente</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Approved / Goedgekeur	Rejected / Afgekeur
--------------------------	------------------------

**HEAD OF SCHOOL CONSUMER SCIENCES /
HOOF VAN DIE SKOOL VERBRUIKERSWETENSAPPE**

[Signature] 28/11/2014
 SIGNATURE / HANDTEKENING DATE / DATUM

COMMENTS / KOMMENTAAR:

**APPROVAL FORM: NWU AUTHORITIES /
GOEDKEURINGSVORM: NWU OWERHEDE**

FOR PARTICIPATION OF STUDENTS/STAFF IN RESEARCH PROJECTS
VIR DEELNAME VAN STUDENTE/PERSONEEL AAN NAVORSINGSPROJEKTE

Name & student/ staff number
Naam & studente-/personeelnr Minnet du Preez 2013205881

Department
Departement Health Professions Education

Tel nr & e-mail
Tel nr & e-pos 018 299 2479 minnet.dupreez@nwu.ac.za

Study leader(s)
Stuieleier(s) Dr. Lynette van der Merwe 051 405 3107
Dr. Sonet Kruger Tel: 051 405 2846

Title of project / *Titel van projek*

A FRAMEWORK FOR EMPLOYABILITY SKILLS OF CONSUMER SCIENCE GRADUATES

Who will be involved in the study? Please tick (✓) in appropriate box. /

Wie sal by die studie betrek word? Merk (✓) asseblief in die gepaste blokkie.

	YES / JA	NO / NEE		YES / JA	NO / NEE
Personnel <i>Personeel</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Students <i>Studente</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Approved / Goedgekeur	Rejected / Afgekeur
--------------------------	------------------------

**DEAN OF THE FACULTY OF HEALTH SCIENCES /
DEKAAN VAN DIE FAKULTEIT GESONDHEIDSWETENSKAPPE**


SIGNATURE / HANDTEKENING

1/12/2014
DATE / DATUM

COMMENTS / KOMMENTAAR:

Approved

Dekaan: Prof A.F. Kotzé
Fakulteit Gesondheidswetenskappe
Noordwes - Universiteit
PotchefstroomKampus
Potchefstroom 2531

**APPROVAL FORM: NWU AUTHORITIES /
GOEDKEURINGSVORM: NWU OWERHEDE**

FOR PARTICIPATION OF STUDENTS/STAFF IN RESEARCH PROJECTS
VIR DEELNAME VAN STUDENTE/PERSONEEL AAN NAVORSINGSPROJEKTE

Name & student/ staff number
Naam & studente-/personeelnr Minnet du Preez 2013205881
 Department
Departement Health Professions Education
 Tel nr & e-mail
Tel nr & e-pos 018 299 2479 minnet.dupreez@nwu.ac.za
 Study leader(s) Dr. Lynette van der Merwe 051 405 3107
Studieleier(s) Dr. Sonet Kruger Tel: 051 405 2846

Title of project / *Titel van projek*

A FRAMEWORK FOR EMPLOYABILITY SKILLS OF CONSUMER SCIENCE GRADUATES

Who will be involved in the study? Please tick (✓) in appropriate box. /

Wie sal by die studie betrek word? Merk (✓) asseblief in die gepaste blokkie.

	YES / JA	NO / NEE	YES / JA	NO / NEE
Personnel <i>Personeel</i>	✓		Students <i>Studente</i>	✓

Approved / Goedgekeur	Rejected / Afgekeur
--------------------------	------------------------

~~VICE RECTOR: TEACHING AND LEARNING~~

~~VICE RECTOR: ONDERRIG-LEER~~ / KAMPUSREGISTRATEUR

SIGNATURE / HANDTEKENING

DATE / DATUM/

COMMENTS / KOMMENTAAR:

KAMPUSREGISTRATEUR / CAMPUS REGISTRAR
 POTCHEFSTROOM
 NOORDWES - UNIVERSITEIT / NORTH - WEST UNIVERSITY
 PRIVAATSAK / PRIVATE BAG X6001
 POTCHEFSTROOM, 2520



**APPROVAL FORM: UFS AUTHORITIES /
GOEDKEURINGSVORM: UV OWERHEDE**

FOR PARTICIPATION OF STUDENTS/STAFF IN RESEARCH PROJECTS
VIR DEELNAME VAN STUDENTE/PERSONEEL AAN NAVORSINGSPROJEKTE

Name & student/ staff number
Naam & studente-/personeelnr Minnet du Preez 2013205881
Department
Departement Health Professions Education
Tel nr & e-mail
Tel nr & e-pos 018 299 2479 minnet.dupreez@nwu.ac.za
Study leader(s)
Studieleier(s) Dr. Lynette van der Merwe 051 405 3107
Dr. Sonet Kruger Tel: 051 405 2846

Title of project / *Titel van projek*

A FRAMEWORK FOR EMPLOYABILITY SKILLS OF CONSUMER SCIENCE GRADUATES

Who will be involved in the study? Please tick (✓) in appropriate box. /

Wie sal by die studie betrek word? Merk (✓) asseblief in die gepaste blokkie.

	YES / JA	NO / NEE	YES / JA	NO / NEE
Personnel <i>Personeel</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Students <i>Studente</i>	<input checked="" type="checkbox"/>

Approved / Rejected /
Goedgekeur / Afgekeur

HEAD OF SCHOOL CONSUMER SCIENCES /
HOOF VAN DIE SKOOL VERBRUIKERSWETENSAPPE

HGH Steyn 28/11/2014
SIGNATURE / HANDTEKENING DATE / DATUM

COMMENTS / KOMMENTAAR:



**APPROVAL FORM: UFS AUTHORITIES /
GOEDKEURINGSVORM: UV OWERHEDE**

FOR PARTICIPATION OF STUDENTS/STAFF IN RESEARCH PROJECTS
VIR DEELNAME VAN STUDENTE/PERSONEEL AAN NAVORSINGSPROJEKTE

Name & student/ staff number
Naam & studente-/personeelnr Minnet du Preez 2013205881

Department
Departement Health Professions Education

Tel nr & e-mail
Tel nr & e-pos 018 299 2479 minnet.dupreez@nwu.ac.za

Study leader(s)
Studieleier(s) Dr. Lynette van der Merwe 051 405 3107
Dr. Sonet Kruger Tel: 051 405 2846

Title of project / *Titel van projek*

A FRAMEWORK FOR EMPLOYABILITY SKILLS OF CONSUMER SCIENCE GRADUATES

Who will be involved in the study? Please tick (✓) in appropriate box. /
Wie sal by die studie betrek word? Merk (✓) asseblief in die gepaste blokkie.

	YES / JA		NO / NEE	
Personnel <i>Personeel</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Students <i>Studente</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<input checked="" type="checkbox"/> Approved / Goedgekeur	<input type="checkbox"/> Rejected / Afgekeur
--	---

VICE-RECTOR: RESEARCH
VICE-REKTOR: NAVORSING /
[Signature]
SIGNATURE / HANDTEKENING

29/01/2015
DATE / DATUM/

COMMENTS / KOMMENTAAR:

3rd February 2015

Ms. Minnett du Preez
Department of Consumer Science
NWU

Dear Ms. du Preez

Your request to include our Consumer Science lecturers and final year Consumer Science students in a PhD study, refers.

This serves to inform you that they will be happy to participate which I also support.

Yours sincerely



Prof. NJL Heideman

Dean: Natural and Agricultural Sciences

Cc: Prof. Hester Steyn, Academic Departmental Head: Consumer Science, UFS



APPENDIX G:

INVITATION TO PARTICIPATE IN FOCUS GROUP DISCUSSION

(Please find Afrikaans version on page 2)

Invitation to participate in a Focus Group discussion

Date: 11 March 2016

Time: 10:00

Venue: Consumer Science Staff room/ Tearoom

Dear consumer science academic staff member

This is a letter to invite you to participate in the second phase of a PhD study entitled:

A FRAMEWORK FOR EMPLOYABILITY SKILLS OF CONSUMER SCIENCE GRADUATES

Purpose of the study: Results were gathered from the first phase of this study regarding the employability skills consumer science employers require from consumer science graduates. The purpose of the focus group discussion is to gather information regarding the best manner in which to teach and assess the proposed employability skills. The purpose of this study is to construct a framework for employability skills of Consumer Science graduates.

Process: The focus group discussion will take a maximum of 120 minutes. Consumer science lecturers from two universities will participate in this study. One focus group will take place on each campus.

Participation is voluntary and you can withdraw from the study at any time. A number will be put in front of each participant and used to refer to group participants during the discussion by the focus group facilitator and group members to help assure anonymity. The researcher will treat data confidentially. There are no costs payable by participants.

Benefits: Results from this study will be communicated at relevant seminars and published in accredited journals and could be used in the consumer science curriculum enhancing the employability skills of graduates - which could lead to more equipped graduates benefitting not only students/employees and the companies they work for, but also contributing to the quality of students you will deliver reflecting positively on the Faculty and University.

Questions: The interview schedule and the consent form would be send to you prior to the focus group discussion. Should any other question arise, please do not hesitate to contact me (Minnet du Preez). You can reach me at work 018 299 2479 or e-mail minnet.dupreez@nwu.ac.za.

Contact details of Secretariat and Chair: Ethics Committee of the Faculty of Health Sciences, University of the Free State – for reporting of complaints/problems: telephone number (051) 4052812

Should you be willing to participate in this study, please reply electronically to this e-mail confirming your attendance, where after the interview schedule and consent form will be sent to you.

Thank you in advance for considering this invitation. I look forward to hearing from you.

Yours sincerely

Minnet du Preez

Lecturer Consumer Science North-West University

PhD Student – University of the Free State – Health Professions Education

Uitnodiging om deel te neem aan 'n fokusgroepbespreking

Datum: 11 Maart 2016

Tyd: 10:00

Plek: Verbruikerswetenskappe personeelkamer/Teekamer

Geagte verbruikerswetenskappe personeellid

Hiermee word u uitgenooi om deel te neem in die tweede fase van 'n PhD-studie getiteld:

'N RAAMWERK VIR INDIENSNEEMBAARHEID VAARDIGHEDE VAN VERBRUIKERSWETENSKAPPE GEGRADUEERDES

Doel van die studie: Resultate is verkry vanuit die eerste fase van hierdie studie rakende die indiensneembaarheid vaardighede wat verbruikerswetenskap werkgewers vereis van gegradueerdes. Die doel van die fokusgroep bespreking is om inligting in te samel oor die beste wyse waarop die geïdentifiseerde vaardighede aan studente geleer kan word asook die assessering daarvan. Die doel van hierdie studie is om 'n raamwerk vir indiensneembaarheid vaardighede van verbruikerswetenskap gegradueerdes saam te stel.

Prosedure: Die fokusgroepbespreking sal 'n maksimum van 120 minute neem. Verbruikerswetenskap dosente van twee verskillende universiteite sal deelneem aan hierdie studie. Een fokusgroepbespreking sal plaasvind op elke kampus.

Deelname is vrywillig, en u kan enige tyd van die studie onttrek. 'n Nommer sal voor elk van die deelnemers in die fokus groep geplaas word en deelnemers asook die fasiliteerder sal die nommers gebruik om na mekaar te verwys asook te gebruik voordat iemand praat om anonimiteit te verseker tydens transkribering. Die navorser sal die data vertroulik hanteer. Daar is geen koste betaalbaar deur die deelnemers nie.

Voordele: Resultate van hierdie studie sal by toepaslike seminare aangebied word asook in geakkrediteerde tydskrifte gepubliseer word. Dit kan ook in die verbruikerwetenskappe kurrikulum gebruik word om dosente te help om relevante indiensneembaarheid vaardighede aan studente te leer en kan lei tot meer toegeruste gegradueerdes (werknemers). Dit sal dus nie net vir die gegradueerdes (werknemers) voordelig wees nie maar ook vir die maatskappy by wie hul werk en terselfdertyd positief weerspieël op die universiteit wie toegeruste gegradueerdes aan die werksomgewing bied.

Enige vrae: Die onderhoud skedule asook die toestemmingsbrief sal aan u gestuur word voordat die fokusgroepe plaasvind. Vir verdere inligting of enige vrae rakende die studie, moet asseblief nie huiwer om my (Minnet du Preez) te kontak nie. Werk telefoonnommer 018 299 2479 of e-pos minnet.dupreez@nwu.ac.za.

Kontakbesonderhede van die Sekretariaat en Voorsitter: Etiekkomitee van die Fakulteit Gesondheidswetenskappe, Universiteit van die Vrystaat – vir rapportering van klagtes/probleme: Telefoonnommer (051) 4052812

Indien u bereid is om deel te neem aan hierdie studie, antwoord asseblief elektronies na hierdie e-pos ter bevestiging van u bywoning, waarna die onderhoud skedule en toestemmingsbrief aan u gestuur sal word.

Dankie by voorbaat vir die oorweging van hierdie uitnodiging. Ek sien uit daarna om van u te hoor.

Vriendelike Groete

Minnet du Preez

Dosent, Verbruikerswetenskappe, Noord-Wes Universiteit

PhD Student – Universiteit van die Vrystaat – Gesondheidswetenskappe-Onderwys

APPENDIX H:

FOCUS GROUP DISCUSSION CONSENT FORM

(Please find Afrikaans version on page 2)

You do not need to print out this form, a hard copy will be handed out during the focus group discussion.

Consent to participate in research: Focus Group Discussion

A FRAMEWORK FOR EMPLOYABILITY SKILLS OF CONSUMER SCIENCE GRADUATES

You have been asked to participate in a research study and received an information document regarding the study.

Should questions arise with regard to the study, please do not hesitate to contact me (Minnet du Preez). You can reach me at work 018 299 2479 or e-mail minnet.dupreez@nwu.ac.za. You may also contact the Secretariat of the Ethics Committee of the Faculty of Health Sciences, University of the Free State at (051) 4052812.

Your participation in the study is completely voluntary and you may discontinue participation at any time without any consequences.

I (Name and Surname) hereby consent to participate in this focus group discussion on at

Telephone number:

E-mail Address:

.....
Signature

This information will be treated as highly confidential and no reference will be made to any names. Thank you for agreeing to participate in this study.

Yours sincerely
Minnet du Preez
Lecturer Consumer Science North-West University
PhD Student – University of the Free State – Health Professions Education

U het nie nodig om die dokument uit te druk nie, 'n harde kopie sal tydens die fokusgroep uitgedeel word.

Toestemming tot deelname aan navorsing: fokusgroepbespreking

'N RAAMWERK VIR INDIENSNEEMBAARHEID VAARDIGHEDE VAN VERBRUIKERSWETENSAPPE GEGRADUEERDES

U is versoek om aan 'n navorsingstudie deel te neem en het 'n inligtingsdokument rakende die studie ontvang.

Vir verdere inligting of enige vrae rakende die studie, moet asseblief nie huiwer om my (Minnet du Preez) te kontak nie. Werk telefoonnommer 018 299 2479 of e-pos minnet.dupreez@nwu.ac.za. U kan ook die Sekretariaat van die Etiekomitee van die Fakulteit Gesondheidswetenskappe, Universiteit van die Vrystaat kontak: Telefoonnommer (051) 4052812.

Jou deelname aan die studie is volkome vrywillig en u kan op enige tyd u deelname staak sonder enige gevolge.

Ek (Naam en Van) gee hiermee my toestemming om deel te wees van die fokusgroepbespreking op..... te

Telefoon nommer:

E-pos Adres:

.....
Handtekening

Hierdie inligting sal as streng vertroulik hanteer word en geen verwysing sal gemaak word na enige name nie. Dankie dat u ingestem het om deel te neem aan hierdie studie.

Vriendelike Groete

Minnet du Preez

Dosent, Verbruikerswetenskappe, Noord-Wes Universiteit

PhD Student – Universiteit van die Vrystaat – Gesondheidswetenskappe-Onderwys

APPENDIX I:

FOCUS GROUP DISCUSSION INTERVIEW SCHEDULE

Interview Schedule for Focus Group Discussion

Focus Group facilitator: Dr. Gerda Reitsma (Health Science Education North-West University)

Assistant/ Focus Group observer/Researcher: M du Preez (Consumer Sciences North-West University)

Welcome: Introduce Facilitator and researcher (assistant) and welcome participants

The purpose of this study is to construct a framework for employability skills of consumer science graduates.

You have been selected because of your valuable knowledge regarding the teaching and assessing of consumer science students.

Procedure of the discussion:

Due to tape recording, please only speak one person at a time.

Remember there are no right or wrong answers, only different points of view.

The role of the facilitator is only to guide the discussion. Different employability skills will be presented to the group and you are requested to talk to each other regarding how you think each skill can be taught and assessed.

Communication skills

English language proficiency

Information, communication and technology(ICT) skills

Interpersonal skills

Teamwork skills

Leadership skills

Problem solving skills

Adaptability skills

Risk taking skills

Creativity skills

Time Management skills

Conclusion:

Summary of the main points of discussion

Chance for any last minute comments

Acknowledgments and dismissal

Onderhoudskedule vir fokusgroepbespreking

Fokusgroep fasiliteerder: Dr. Gerda Reitsma (Gesondheidswetenskap Onderrig-leer Noordwes Universiteit)

Assistent/Fokusgroep observeerder/Navorsers: M du Preez (Verbruikerswetenskappe Noordwes Universiteit)

Verwelkoming: Fasiliteerder en navorsers (assistent) sal voorgestel word en deelnemers sal verwelkom word.

Die doel van die studie is om 'n raamwerk saam te stel van die indiensneembaarheid vaardighede van verbruikerswetenskap gegradueerdes.

U is gekies om deel te neem aan hierdie studie as gevolg van u waardevolle kennis met betrekking tot die onderrig en assessering van Verbruikerswetenskap studente.

Prosedure van die bespreking:

Omrede daar van bandopname gebruik gemaak word, sal deelnemers versoek word om asseblief een op 'n slag te praat.

Onthou daar is geen reg of verkeerde antwoorde nie, slegs verskillende opinies.

Die rol van die fasiliteerder is slegs om die bespreking te lei. Verskillende indiensneembaarheid vaardighede sal aan die groep voorgelê word en u word versoek om met mekaar te praat oor hoe u dink elke vaardigheid aangeleer en geassesseer kan word.

Kommunikasie vaardighede
Engelse taalvaardigheid
Inligting, kommunikasie en tegnologie (IKT) vaardighede
Interpersoonlike vaardighede
Spanwerk vaardighede
Leierskap vaardighede
Probleemoplossings vaardighede
Aanpasbaarheid vaardighede
Neem van risiko's vaardighede
Kreatiwiteit vaardighede
Tydbestuur vaardighede

Gevolgtrekking:

Opsomming van die hoofpunte van die bespreking

ʼn Kans vir enige laaste opmerkings

Bedankings en afsluiting

APPENDIX J:

TABLE FOR SCHEFFÉ'S TEST RESULTS

TABLE FOR SCHEFFÉ'S TEST RESULTS

Significant differences are indicated by *. Differences shown for scores of group in column less scores of group in row. For example, regarding communication skills: Importance for graduates (column 1 **) was 2.44 more than that for employers (row 2 ***) (cf. 4.4.3.1).

Communication skills						
	Importance			Competency		
	Graduates**	Students	Employers	Graduates	Students	Employers
Students	-0.90			-2.28		
Employers***	2.44	3.34		6.73	9.01*	
Lecturers	1.76	2.66	-0.69	22.17*	24.45*	15.44*
English Language Proficiency						
	Importance			Competency		
	Graduates	Students	Employers	Graduates	Students	Employers
Students	5.15*			4.57		
Employers	1.90	-3.25		17.02*	12.45*	
Lecturers	4.67	-0.47	2.77	24.43*	19.86*	7.42
Information, communication and technology (ICT) skills						
	Importance			Competency		
	Graduates	Students	Employers	Graduates	Students	Employers
Students	-0.63			-3.90		
Employers	0.02	0.65		9.36*	13.25*	
Lecturers	-0.13	0.50	-0.15	15.82	19.71*	6.46
Interpersonal skills						
	Importance			Competency		
	Graduates	Students	Employers	Graduates	Students	Employers
Students	-3.91			-3.64		
Employers	1.08	4.99		6.03	9.67*	
Lecturers	1.25	5.17	0.18	14.27*	17.90*	8.23
Teamwork skills						
	Importance			Competency		
	Graduates	Students	Employers	Graduates	Students	Employers
Students	0.27			-3.28		
Employers	-2.07	-2.34		4.01	7.28	
Lecturers	7.38	7.11	9.45	14.85	18.12*	10.84
Leadership skills						
	Importance			Competency		
	Graduates	Students	Employers	Graduates	Students	Employers
Students	-5.49			-5.66		
Employers	0.95	6.44		8.47*	14.13*	
Lecturers	7.15	12.64*	6.20	14.32	19.98*	5.86
Problem solving skills						
	Importance			Competency		
	Graduates	Students	Employers	Graduates	Students	Employers
Students	1.18			-3.21		
Employers	4.07	2.90		8.39*	11.60*	
Lecturers	6.15	4.97	2.08	17.08*	20.29*	8.69
Adaptability skills						
	Importance			Competency		
	Graduates	Students	Employers	Graduates	Students	Employers
Students	0.52			-0.50		
Employers	4.44	3.92		8.66	9.16*	
Lecturers	6.87	6.35	2.42	14.77	15.27	6.11

Risk taking skills							
	Importance				Competency		
	Graduates	Students	Employers		Graduates	Students	Employers
Students	-0.51				-3.07		
Employers	5.22	5.72			6.97	10.04*	
Lecturers	9.46	9.97	4.25		11.51	14.58	4.54
Creativity skills							
	Importance				Competency		
	Graduates	Students	Employers		Graduates	Students	Employers
Students	-2.21				-5.24		
Employers	4.47	6.68*			5.98	11.22*	
Lecturers	6.05	8.26	1.59		5.07	10.31	-0.91
Time management skills							
	Importance				Competency		
	Graduates	Students	Employers		Graduates	Students	Employers
Students	0.85				-2.15		
Employers	3.08	2.23			16.12*	18.27*	
Lecturers	1.19	0.34	-1.89		26.10*	28.24*	9.98

APPENDIX K:

FOCUS GROUP DISCUSSION ANALYST TRANSCRIPTIONS

Communication skills				
Theme	Category	Sub-Category	Quote	
Lecturers role	Responsibility	Not lecturer's responsibility	So if you have to train your students in writing skills, do you think there is a way you will be able to do that in your curriculum? [G1.F] Once again I think it is not our, it is not our responsibility to teach them to write. [G1.1] But I feel it's not only our job....[G2.7]	
		No assessment	But apart from that module I don't think it is actually our task to teach them to communicate, we can allow them the opportunity to develop their skills, but to assess it, I won't agree on that one.[G1.6] Yes where they actually assess those skills, I can see the benefit of developing it, but I really do not want to assess it and in the end maybe have to give the student a poor mark because they don't talk, speak out loudly, because they cannot communicate that easily with people, speak in their mother tongue, something of that kind. I will not go for that.[G1.6] So you see a way of helping them with developing it but not formally assessing it [G1.F]	
		Full curriculum	We do not have time in the curriculum to spend time on that, we should concentrate on the content of the curriculum [G2.4]	
		School's responsibility	you must arrive with certain skills. Stuff you learned at school.[G2.7] But I feel it's not only our job, it is the same with telephone etiquette, there are so many things that went missing, I just feel that a student who arrives here must already have certain skills, it's not just our job to teach what the home and school did not do in 12 years, now it's our job to do it [G2.7]	
		Consistency in applying standards for assessment	Must be firm and consistent	They do a lot of assignment and we are actually very strict on that, on the way that they write. [G1.4] and between the modules communication must take place to ensure it is assessed in the same way [G2.F]
			Referencing	Strict in terms of what? What do you look at when they do their assignments? [G1.F] Mmmm... Referencing... [G1.3] Mmm, yes referencing definitely and mmm, the way that they present it as well, the content, but also mmm of course the content, but also the way that they present is [G1.4]
			Technical	Technical? - Yes, Technical [G1.5]
			Language	Language - Yes Language and sentencing construction , spelling, grammar [G1.2] No sms tenses [G1.6] And no google translate [G1.1]
			Only accept precise/exact answers	...a lot of the time when they write something, and I realised well, you know the answer, but you do not write the answer, then you do not get your point, and I explain to them, because they complained afterwards and say but they did write something like that, but then I explain to them you did not

Theme	Category	Sub-Category	Quote
			answer the question, so if one strictly marks according to, did you answer the question or did you not give the answer, they learn to communicate better [G2.4]
	Guidance	Assignments	Actually we guide them through assignments with the correct way of doing it [G1.3] So you don't have formal education [G1.F] No no not a formal one, we're guiding them through it [G1.4]
		Writing professional e-mails	Yes, and I try something, uh, and you cannot assess it or anything, but I tell them if you send me an e-mail, I want a topic, you must tell me, hello it's me, and this is the subject and then you have to explain to me in full sentences, if you use SMS language, I cannot understand what you are saying, and then, and I cannot answer, so you try... because they send e-mails without a subject, without sense, and it is almost a kind of a professionalism that you want to teach them and make them alert of it, because I do not know if they just do not know [G2.3]
		Revising vocabulary	and when they speak, I correct them and help them to use the correct terms, I correct them, I say, you are talking about the absorption of resilience... [G2.4]
Positioning of modules in curriculum	Compulsory module		I was hoping AGLA do it, that they do it with the academic literacy and reading course and those types of things [G2.4] We have already said for the first-years there is AGLA, which help with the basic skills, [G2.F] Do your students for developing writing skills, Do your students also have a compulsory module in their first year that is general for all the students that is for academic literacy?[G1.F] No, only the one they write a nbt test and those of them that get a mark lower than 70% for the nbt test, they are forced to take a module, it will be great but we don't have a compulsory module. [G1.6] I would love it if they could have a module in which they could actually get a mark for learning how to do that, we could still guide them but that would be great if they can have it before they start to do assignments for us. [G1.6] I think, I do not know how many opportunities they get to do it, but whether they may need to get more opportunities and if they might somewhere get formal training sessions, because at honours level we think they know what is more or less important to be in a PowerPoint, this is how you do it, but it is not the case [G2.3} So if I heard right, the recommendation is that there is actually very specific training, not necessarily part of the curriculum, maybe something additional, maybe an outside person to do the verbal communication. [G2.F] In the past we had a course in the first year which I presented one year on communication skills, we taught them how to do a PowerPoint, how to be professional and it was just during one year but we had to remove it because there was not place in the curriculum for such a luxury, but I heard later that postgraduate students, M students who presented their papers said they went back to what they have learned during that module and applied it, and it helped them a lot to know for example,

Theme	Category	Sub-Category	Quote
			perhaps how big or how full should a slide be, they can make a beautiful slide, but it may not be readable, or what is it to really be professional when you make such a presentation. [G2.2]
	Elective module		Yes, I think they get opportunities but not a formal module in corporate communication. Quite a number of our students prefer to take modules in the department where they do get the opportunity [G1.6] Yes, it's completely additional, it is not part of their credits, and it's also not part of their electives, but they have the opportunity to take it additionally, but most of the time when they aim for a career in a field where that's extremely important they do it, they take it. [G1.6] some of our students do take a course in journalism so, mmm, if they are heading for food writing or whatever, they go on with that [G1.4] Is that part of the curriculum or an addition one [G1.F] No its additional, they can, there is a scope in the setting of, of the whole course for extra modules so if they are interested in that they are able to [G1.4]
	Add components into existing modules		I wonder also if you look at these types of skills or that modules, one can see what is important and then divide it into components and put some of that components in the first-year module, and say okay, for this subject in the first year we are going to do a PowerPoint presentation, and then use 10min of the time and say okay, this is what a PowerPoint must look like, the PowerPoint must look like this and then evaluate it very critically, and then in a next module, they must do something new, but they must remember what they did the last time, so then by the time they get to honours they know how a PowerPoint must look because they were evaluated on it throughout the 3 years, or how should I dress when I give a PowerPoint presentation [G2.6] ...it is too late and I think we all feel that it is an impossible task for them to learn to write after a block session, I think we can apply the same principle to teach them the principles little by little from the first year and make sure everyone evaluate strictly or rigorous assessment so that they already know how to write an introduction or how to write a sentence, or a paragraph, that they do not learn about it the first time in their honours year, for the first time that they have to write a test, they forget the most of the things they learned in honours, and then they are not ready when they start to work [G2.2]
Teaching and assessment strategies	Improving written communication skills	Written assignments	I think most of it is there with tasks and assignments, it is there with time, I mean everything must be presented at the end [G2.7] In writing, if you give an assignment, I mean they must reflect everything in the end [G2.7] Again with written assignments [G2.F] – Yes [G2.4] Written communication can be done by assignments.... [G2.F] They do a lot of assignment and we are actually very strict on that, on the way that they write. [G1.4]
		Structured reports	...the emphasis must be more on being able to do structured reports and good practical examples [G2.7]

Theme	Category	Sub-Category	Quote
		Literature studies	They have to submit a literature study where we look at writing skills and how they write and how they handle it [G2.3]
		Assessment criteria	Okay, so your assessment criteria can guide them to develop those skills [G2.F]– Yes [G2.4] We do give them the requirements that we set and mmm half of them follow and half of them follow only after you take a few marks away [G1.6]
	Improving verbal communication by presenting in class	Presentations	I will say by having lots of presentations it can either be power points or just doing presentations in class, not always but basically what are they doing. [G1.2] But I do agree that we will have the opportunity to allow them to develop these skills and give them the opportunity to speak up in class and also to present something [G1.6]
		Case studies	...they get a case study and they have to do a presentation where they have to present the application of the case study. [G2.3]
		Simulation groups	In my third year module, we make it playful and we say to them, they each have a business, and they have to make a presentation to the client, and many times they will make quite an effort they would dress more or less the same with name tags, so it's half-playful, but I think it expose them to behave professional, they will introduce themselves professionally, while a other group would not care to not much, but then that group will lose marks because they do not look professional, because in that module I tried to be very strict with them to be professional, because I tell them at the end of the day you will work with clients so you should be able to talk properly to them, your documents should look decent, therefore I don't want something with fake flowers and stuff [G2.6]
		Assessment criteria (voice, language, grammar, posture)	And do you have a specific way of assessing their presentations, specific criteria [G1.F] – Yes [G1.2] Which includes the language, the grammar etc., the voice? [G1.F] - Yes the voice [G1.2] ...especially with the posture and speak up, those things that is not acceptable, but when you are delivering a lecturer or speech, but I think we can help them [G1.3] For my other fourth year module because they were teachers so I thought we could start from there to practice by having presentations to assess their voice, because some of them their voices are very low or they could be shaking and yes, that basically, and then the posture obviously, during my fourth year module then they can assess whether the language and grammar and other things are done properly [G1.2]
	Improving verbal communication through teaching methods	Promote communication in class	Yes, I think just the way we present our classes may also promote communication skills, because I ask a lot of questions and I encourage the students talk about things they have at home, problems they experience in their everyday life, with textiles specifically, to talk about it.....so to encourage them to speak in class also and encourage them to have conversations with each other, but especially there where everyone can hear, but unfortunately its usually two or three of the 60 who participates Yes. I mean every kind of job that they will do one day does not necessarily mean that they will do a presentation, they just need to communicate with their peers and I think that our students do that [G1.5]

Theme	Category	Sub-Category	Quote
		Communicating during "practicals"	I think because we have a lot of practical sessions, they do have to communicate, they have to communicate with each other and they have to communicate with us. So I think more than other more academic degrees they do learn to communicate during those practical lessons. I mean during theory lessons, theory is theory, Mm but I think they do have a lot of opportunity to communicate [G1.5]
		Buzz groups	Yes, Especially in the practical classes but as well in the normal theory classes you ask questions, they have to answer and, buzz groups or whatever and those who don't want to communicate is not going to communicate in that situation for that you are going to, they are going to be exposed to that in the community development class and things like that [G1.4]
		Real life scenarios	But they do have a little bit of theory there, also of communication and how to communicate let's say with her community, so it is more in a more informal matter than in a presentation, actually going into a community and interacting with those people and how to communicate with them, mm, and they all have to do that, they all go in there and they all have the opportunity in that little time space where they have to communicate [G1.1]
Factors inhibiting the promotion of communication skills	Large classes		I think, and I think also because of the size of the classes, [G2.7] ...but the problem is in large classes [G2.7] ...large classes make it difficult to really pay attention to it [G2.F]
	Time		Yes and time [G2.6] ...but if you cannot do something, you should do it until you can do it, but I mean we don't have time to do things over and over to ensure that everyone gets on that level... [G2.7]
	Group work		..there is, you always get your guys in groups, because you are forced to do group work, so then there is always passengers who rides along and who gets through the system with the help of their friends. [G2.7] ..so you do it in a group, but there are those passengers who cannot do it, and in the end they get a good mark, because the group has helped them, so it's good for weaker students, but the help they get actually do not help them at all [G2.7]
	Technology		I also think the students are starting to communicate to much on cell phones with each other, they lose the really just sit down and talk with someone else, make eye contact, I came across students several times were 60 students are sitting and none of them are talking with each other, you know they are all just on their phones, which really shows that people are losing the ability to really talk to each other. [G2.6] ..but the fact is, even if you are good with technology, you still need to know how to transfer it to other people and that other people understand you [G2.7] I would like to add, you should not think you must always use technology, a phone or a computer, you should also develop those communication skills where you don't use any technology [G2.5]

English language proficiency		
Theme	Category	Quote
Using English in practice	Textbooks	I would hope because all textbooks is English, that it at least contributes to their English comprehension... [G2.4]
	Assignments	I think to do some of the assignments in English. Not the papers in English, because I feel, if you really have to think, it is easier to do it in the language you study in, but to say okay, at least one assignment should be English [G2.7]
	Presentations	Yes, but also presentations [G2.7] A teaching module so there they have to do presentations in English? [G1.F] – Yes [G1.2] So that is one of the opportunities? [G1.F]
	Communication in class	I think for example the food that has a practical component, maybe for the first hour of the practical, forcing them to only speak English with each other, it may help [G2.5]
	Diverse groups	Something I saw which helped with last year's group was the fact that there was an English student in the class, and to not put all the English students in one group, because then all the other students talk English because they can speak better English than the English students can understand Afrikaans, and it helps a lot that they communicate on an informal level where they do not fear that the whole class will hear them, they speak English because of that person so it's not for them, they are not on the spot, it's about the other person [G2.4]
	English friends	Leave them with their English friends in the class, that's how. [G1.6]
Building confidence	Comfortable	I think more of them are actually able to use English properly than they consider themselves. They are not confident and when you convince them that although it is a second language, although you don't expect them to do it in the same way as you will a first language they can still do it. But the students do not have the confidence and being scared to use English... [G1.6] ...I think it is firstly important to get students to be comfortable talking, because if you are forced and all of a sudden you must speak English, you forget all the words, but when get comfortable over time you learn new words, new terminology that you can use in presentations, then it's not an issue for you to use it because you know what the word means and you are comfortable. [G2.6]
	Informal communication	..and it helps a lot that they communicate on an informal level [G2.4]

ICT Skills		
Theme	Category	Quote
Structuring the curriculum	Modules (including WORD, EXCEL, PowerPoint)	They do take a course in that [G1.6] They do WORD and I think Excel, and mmm how to double click...I think they basically do most of your programmes that you would use, PowerPoint, Excel, WORD [G1.1] Yes, a little, but the others is Excel, and in general people struggle with it, but the plain Word, that they do, assignments [G2.7]

Theme	Category	Quote
	Learn basic skills during their first year	They do take a course in that [G1.6] In which year? [G1.F] - First year, both semesters [G1.6] So if I understand correctly in their first year they get baseline training and from there they have to implement their knowledge and skills throughout the second, third and fourth year. [G1.F] Yes (all agree)
	Interior practical	Yes they do, my third year interior design students have the opportunity to use a certain computer programme, it is design oriented, and yes it is only about 6 weeks they spend using the programme, and then they are assessed by a test, including all the components of the programme that make sure that they, maybe not fully mastered the programme, but they can use the basic components of the programme. It is a programme they often use in the industry so it helped them to get a little more comfortable with it. I tell them that if they really have to work with it one day, they should go for formal education where they can maybe get a diploma or certificate that says they did it because there they would get more depth. [G2.6] ...and in their first year interior practical they use this sketch up programme so we teach them how to use that. [G1.1]
Assignments	Typed	...they have to use their skills to present their assignments or we expect it to be done properly and I think they can, most of the time they can do it better than me [G1.6] Yes, not necessarily electronically, but at least typed [G2.4]
	Electronic submissions	Do you expect your students to submit assignments electronically? [G2.F] – Yes [G2.7] But at the moment they can submit it on e-Fundi [G2.7] Or yes [G2.4] They submit it in drop box in e-Fundi and then I physically mark it, or because they are not finished, they can give me the link then I go to the website, or they can download it as a pdf, if it is in an e-book and submit it... [G2.3]
	e-book/internet	With the first-years, they always made a storybook that they had to submit a hardcopy, this year they must make an e-book or a website to bring in the technology,they were pretty open to it and I did not go through a lot of trouble to tell them how to search for free e-books, I only gave them a website programme's name they could google, no one asked questions, or how to do it, they just went on, on their own... [G2.3]
	Successful end product	Okay, so you do not necessarily assess the lack of the use of technology, but the content? [G2.F] Yes, it's really mostly about the content, it is not about how they have used the technology, but they had to have mastered the technology to be able to hand in a successful product [G2.3]

Interpersonal skills

Theme	Category	Quote
Teaching and assessment strategies	Group work	Well I think they do a lot of group work [G2.6]
	Roles	In my production line practicals groups have practicals on different days and then there are two team managers, production line managers who I appoint, however they themselves vote for or select them and then that person is responsible for the

Theme	Category	Quote
		functioning of the group and I tell them they cannot sit behind a machine, they must make sure the production flows... [G2.4]
	Peer assessment	Sometimes peer assessment, I tell them, I give them a list of everybody and everyone has to give a mark for everyone's contribution to the group. Sometimes I just ask the production manager, but other times when I realised there was struggles amongst the group I will give everybody the opportunity to give a mark. Sometimes everyone gives full marks for everybody but one soon realise that something is going on if there was one person getting 4 out of 5 and the others all have 5 out of 5. [G2.4]
	Autonomy	...and I think it helps that I am not in class the whole time, I am in and out, so sometimes there is a fight, someone who has done something wrong, or he must fix something and it's not his fault, but then they sort it out together without me being present, then afterwards they tell me there was a problem but they already sorted it out. So I think in that sense that I am not constantly supervising, because I want them on their own to go on, on their own, at the beginning they struggled, but later it gets better, and I think it helps that you give them that confidence to communicate with each other without someone constantly supervising them [G2.4]
	"Practicals" (Practical sessions)	They do work in teams in practicals. So we kind of force them together and it's not really necessary to force them together they work in ... as a group [G1.6]
	Increased interaction in small classes	I think we are lucky to have quite small classes and if they do not answer I pin point somebody, and we can see that quite easily because if they don't answer you or they don't always take part in it, then we could ask, what is your opinion [G1.3] So because they are in small classes you actually have to interact with everyone [G1.F] – Yes [whole group]
	Discussions in class	Discussions in class, quickly talk about this and then report back, so they have such quick brief discussion [G2.4]
	Practical real life scenarios	Once again in the community development, mmm, they have to go and work with people from the community and different kinds of people, different social classes, and cultures, different everything. We do expose them to it [G1.1] So they have the practical exposure [G1.F] – Yes [whole group agree]
Outside the curriculum	Being a student at university	And I think just being at varsity force you to interact with other people not only in the class situation mmm I think that is one of the big benefits of being at varsity [G1.4]

Teamwork Skills

Theme	Category	Quote
Role play in group work	Ongoing assignments	Some of our assignments, they have to work on a lengthy assignment as a group and then obviously they have to decide who's taking on which role and whose going to be the dependable one, who's going to submit the paper in the end, but I think that's the best way in which we can kind of help them to, improve their teamwork skills [G1.6] The third year have a, mmm practical, where they also have a lengthy assignment (entertainment) where they have to prepare a children's party or a picnic or whatever, and there are four people, four students working and they have to take on different roles and plan for about a week before. [G1.5]

Theme	Category	Quote
		<p>Do you ever give your students an opportunity where they must, like a project, start something and work on it through the semester and hand it in at the end, but each one had a specific role to play? [G2.F]</p> <p>My website is actually like that, the idea is that they are 3 or 4 in a group, 1 is the technician and he has to figure out which programme to use, the technical things around it and to implement it and the other two had to, the one was responsible for visual examples and the other was responsible for the written examples, if they had a 4th person, that person is actually responsible for the whole picture at the end, and if they do it like that, I cannot say at this moment, but it was the idea behind the assignment [G2.3]</p>
	Change team members throughout	<p>And the practical goes on the whole semester so they, they are working, not always in the same team, on preparing this party or tea or whatever [G1.4]</p> <p>Can I clarify, so they start with a team and then they change team members throughout the semester but on different practicals [G1.F] - Yes, yeah [whole group]</p>
	Shorter assignments	<p>Smaller assignments, I have an assignment that I do once in a semester in a module, I give them a task and them and I say, okay, one person in the group has to report back, one person must write down, the other two must search for the information, but it is a single assignment, but they are not assessed for their roles, they will be assessed for the answer they give [G2.4]</p>
	"Practicals"	<p>And then in some cases we do like a tea and part of the class is responsible for laying the table, some are responsible for decorations, whatever, and they have to work together, the whole class [G1.4]</p> <p>We also did the same thing, taking different roles, mmm, I can observe that there was one who was good at communication, communicating with the group and obvious others was good at making food and then others will look at working one to one with community members so that was what I observed in the past so they can work not just as a group but as a team, because they know that they have to meet, for example last week they were here until half past 7, who was going to do what, so that we decided, what was responsible for what, so that there was a team and also when we go they knew this one was going to be responsible for a number of people, this one was going to be responsible for mmm ... to introduce or a number of things. [G1.2]</p> <p>So in the practical module they have the opportunity to clarify their roles [G1.F]</p> <p>Yes, and who is responsible based on their personalities, if one knows she is good at explaining things better in groups, other are good at explaining things one to one, so each person had a role, with making food cause they have to make food, so each and everyone knew well okay I'm good at making let's say lasagne other one will say I am making whatever okay [G1.2]</p>
Outcome of assignments	Evaluating the end product	<p>But I think if they have a successful end product it is to some extent an evaluation of teamwork, if it is a task that they could not do alone, such as the production line, for example, yes the production line I think is definitely a teamwork evaluation [G2.4]</p> <p>In food practically they should of course work closely to prepare a dish, but they also hand in a general assignment together, I do not think it will be assessed so much in terms of a team, but it's handed in as a team [G2.5]</p> <p>Is it more of a theoretical kind of assignment or does it have a practical component? [G1.F]</p> <p>Sometimes it will have a practical component they have to do a specific project which will involve some gathering of literature, deciding on a method, going through the practical and then writing the report. So it is on different levels, but</p>

Theme	Category	Quote
		there is the practical planning and then there is the actual project and in the end the report they have to write, so it could have contain levels. [G1.6] ...but in the end it is about the product put on the table, if there is struggles between students, they must sort it out, as I tell them, every year they do it in the 3 rd year and honours year, and it is much more comprehensive in the honours, but in the end it is how it will work in the industry, you have to find a way to get through it, because in the end should you have to do this project presentation, and it must be for a company or whoever, so they are evaluated in the end the project, the result, and they get marks for the components thereof, but it's not for individual roles where you say to somebody, okay, you were the manager, the roles differ the whole time [G2.7]
	Simulation	I think, I make sure use of it to some extent with that they should be divided into businesses, and every time they get a point for professionalism and for the assignment as a whole so, and then afterwards they evaluate each other to say how everything worked together, was everyone always on time, did everybody contribute equally and such things, and then, so they provide their assignments as a business, which really serves as a team. I Think ... [G2.6]
Work experience		...I do think that you learn much more the day that you walk in the workspace than here [G1.4]

Leadership skills

Theme	Category	Quote
Personality	Not teachable	...but I think if you do not have strong leadership skills, I do not know if we could ever make someone a leader [G2.7] Leadership is not something that you can teach somebody. [G1.6] I think personality plays a big role because you always get the followers that you can see, usually the groups where there are problems is usually the group with more than one leader and over time they sort each other out, but, if you have followers, it's easy, there is one that is saying and the others do, and he usually they are sorted, but it does not always work that way, most struggles come in group work with members with different strong personalities, but, leadership is not necessarily something you cannot learn, [G2.7] ...because I think that plays also on the personality... [G1.2]
	Employer preference	You are either a leader or you are a follower and I think you, the employer has to employ a leader if he want to have a leader, he can't expect us to deliver from a group of 40, we should not expect to have 40 leaders, or everybody cannot be a leader. [G1.6]
Leadership experience	Opportunities on campus	outside curricula [G2.4] It is not part of you formal curriculum? [G2.F]- No [G2.4] ...but I do think students have more opportunities on campus, to show their leadership and develop their leadership than only in the class. I feel students have lots of opportunities to become leaders if they are inherently leaders but the followers won't ever be leaders [G1.6]
	Campus committees	...but I think even something like Nutricamus to stand for the ASV, I think it is still part [G2.4] Yes, yes [whole group]

Theme	Category	Quote
		But now, I wonder, it is not in our curriculum, but can we not encourage them to participate in HK, UK, that kind of outside stuff, because it's another type places where they learn leadership qualities more than we can teach them, even though it is not within [G2.6]
	Knowledge (Leaders in a field)	...you can become an expert in your field, then you get more familiar with it, so you will in certain situations give direction and take the lead [G2.7] A leader is not necessarily a leader in general, but a leader in various fields such as NAME said, if you are knowledgeable in your area then you are also a leader [G2.4] Then you will, in a work situation, if you properly, you know, educated, and you have confidence in your module and you have confidence, then you will, where necessary, you will come forward I think [G2.7]
Methods of teaching	Group work	Assessment of the leadership, there is an opportunity to take the lead in a group like a production line manager for instance... [G2.4] It happens in an informal manner with group work, somebody takes the lead [G2.F] You discussed that you do that during a team, how does that happen, explain... [G1.F] I just told them that this is the task that they are going to do, so obviously they had to decide amongst themselves who was going to do the talking and then who was going to be responsible for whatever [G1.2] They pop out, for you give a specific group and in that group somebody have to walk out as a leader and I think the opportunities is there [G1.6]
	Evaluation criteria for assignments	One must remember, we don't want to develop only one person's leadership skills in the group, we want to develop the whole group's skills, so perhaps you can with the assignment, ask, how did you plan, how did you organise, raise some leadership qualities, and ask, how did you think you are going to do it or approach it [G2.5] So you assign specific criteria to it that you can assess then [G2.F] Yes, that is correct [G2.5]
	Reflection	But, at the end of each assignment, they need to complete and hand in a separate form, explaining his contribution of each aspect, or how he did it, or how he found it, did the group accept it or whatever, I do not use it for marks or anything, but, really just to see who works and who not work [G2.7] For some reflection [G2.F] Mmmm [whole group] I think if a student must complete something like that, then it forces them to think about it, and say but listen, I have to do my part, take responsibility [G2.4]

Problem solving

Theme	Category	Quote
Teaching and assessment strategies	Problem solving in class	And I think we give them that opportunity because often when a student ask me something I will throw the question back at them and listen to their answer and see if they, you know, could solve it for themselves, cause most of the time they do actually know the answer [G1.5]
	Solving problems	But can you not think of an example what you can do in the curriculum to improve it [G2.F] - If there is no ingredients, they can get in the car and get it [G2.6]

Theme	Category	Quote
	<p>themselves during "practicals"</p>	<p>In some extent, in the 3rd year if their order lists is not on time and they did not give them in, then we just say tough, you have to ensure that the stuff is there and you do the practical, so if your ingredients is not there, go buy it yourself and bring it here, we're not going to give it to you, but you have to do it, we only want the end product, and it is the same with other stuff... [G2.7]</p> <p>Then problem solving skills, when your students leave here, are they good problem solvers? How do you train them in problem solving? [G1.F] - Mmmmmmmmmmmmm, Clothing practical [G1.1]</p> <p>What happens in clothing practical? - There are lots of problems you need to solve "why is this over locker not working"... [G1.1]</p> <p>...mmm and they also have to improvise in the food lab a lot mmm, and that is also problem solving [G1.4]</p> <p>I want to add to clothing practical and food practical also, mmm in the first few practicals you run around like crazy because they ask you everything and then you start seeing how they start discussion amongst themselves their problems and solving it themselves and then in the second term around September I start being bored during practicals because then they don't ask you were do they find the boiling water anymore, mm they figure it out that they need to find the kettle, plug it in, and make their own boiled water. [G1.5]</p> <p>Yes indeed, yesterday the honours discovered that somehow the order list in class and the one that they have is not the same [G2.7]</p> <p>...but also in your practicals they get presented with a situation where they actually have to figure out themselves how to do it [G1.F]</p>
	<p>Case studies</p>	<p>Well yes, I like to make use of case studies in the interior modules because it is nice to give for example a type of family composition, and a type of floor plan, and a problem that is applicable to the type of work we are doing, so um, in that respect I make quite a lot use of that type of problem solving skills, and .. . [G2.6]</p> <p>Do any of you work with case studies? Do you present them with a case study, a problem that they need to solve? [G1.F]</p> <p>In question papers a lot [G1.4]</p> <p>I do some class assignments and I know one of our other colleagues do it as well, were you give them a case study and they need to(show with hands) [G1.1]</p> <p>So if I can summarise with problem solving you do have in your theory modules some case studies and they have to solve the case studies, that's problem-based learning [G1.F]</p>
	<p>Solving everyday problems</p>	<p>One tries to add different stuff but it is difficult to on top of subject-specific stuff, also teach general life skills, the honours had their graduation on the day that I teach, we cannot miss a class, but they threw their hands in the air and just said they cannot be there, then I just said well we must have the class because there are people who has to present, and they had to choose a time so they had to talk to each other because most of them are busy somewhere helping with practicals or assisting, so it was really difficult to get a time that suits everyone's, but they had to sort it out among themselves and then come to me and make sure it suits me as well, so I think it is also in some degree, they can just say, no sorry, we are graduation, so what now, so they have to take responsibility for it so it is also a way [G2.3]</p> <p>Okay, so a gather that general problem solving skills is something which takes place out of the curriculum in everyday situations [G2.F]</p> <p>Yes, you cannot really assess it, well not at the moment [G2.3]</p>

Theme	Category	Quote
		Sometimes reality cause that, you order something and it is not available so (Name) buys something different and they have to improvise how that should be prepared or they might asked for something ready prepared and it is not available, mmm, they have to prepare it, I think it happens in reality [G1.6]
	Assignments	The assignment they get requires problem solving skills [G2.F] – Yes [whole group]
	Real life scenarios	My assessments, especially in the 3 rd year as I try to bring in the higher order skills in the assessment, are problems that I give them, a carpet which rot or faded, what are the causes, and they have to provide a justification for possible solutions [G2.4] One tries to give real life scenarios that they may possibly encounter in real life [G2.6]
	Exams	I think exam papers you obviously have to give them problems to solve, that's one of the theoretical places. If they can solve it on paper hopefully they will be able to solve it in reality after the paper, they have written exams as well, I hope so [G1.6]
Building confidence	Practise and knowledge increase confidence	Yes, yes, they do get the confidence to, to solve their own problem, its true yes [G1.5] Confidence [G1.4] I think so, I think so, I think there are problems they would be able to figure out themselves, you know I think once you give them that confidence in, you know to make their own solutions they will start doing that [G1.5] Definitely not, mm, but as they go through practice and they all get the knowledge and the confidence, I think confidence is a very important thing here [G1.4] And the knowledge [G1.4]

Adaptability skills

Theme	Category	Quote
New experiences	Innovative practices	Just to do something in a different manner as they are used to [G2.4]
	University	I think the whole university is an adjustment to them [G2.7] I think the mere change of a school environment to university environment and the way work is done, we do not follow the textbook from pages 1, it's a big adjustment they struggle with... [G2.4]
	"Practicals"	And I think to a certain extent my practical also with the production line, suddenly they have to work on new machines and on a completely different way, they are used to each person sitting at his own machine and do his own thing and do not care about the rest, here the whole practical is turned around, it is a different setting, it catches them of guard and they are frightened to hear that everybody is going to get the same mark, they do not like it, but in the end it works [G2.4]
	Teaching methods	I think the whole honours experience is an adjustment to them, it is a totally different structure than their undergrad [G2.2] To switch teaching methods, alternating methods, presentations [G2.4] And the manner of teaching [G2.F] - Yes, the manner of teaching [G2.4]
	Quantity	And quantity [G2.3]
	Textbook in different language	So the study material already [G2F]- Yes [whole group] And English textbooks [G2.6]

Theme	Category	Quote
	Time schedule	And time constraints [G2.6]
	Independent learning	And working independently [G2.4]
Teaching and assessment strategies	Group work	Yes but I do think that all the group work that we give, which should really be teamwork, they must be adaptable, you cannot work in a group or a team if you cannot adapt to the individual next to you, and we have a lot of group work, teamwork, whatever you may call it, and in the end hand in a sensible product which is not 'here is my part, here is my sources' ... they had to adapt, and if it is successful then you assess them on that, there were a form of adaptability there, you know, my time does not fit you, no my time doesn't suit you, let's meet at your house, I do not like your house... [G2.3] And cooperation [G2.F]- Yes [whole group]
	Problem solving	Give them the problem and they will eventually adapt there. (laugh) I think they can [G1.6]
	Real life scenarios in "practicals"	I don't think we do it on purpose, but I mean in the food practical it happens that we...the mangos are too green to use, then, you know they have to adapt, they have to make the recipe with something else, you know mm and they accept it as part of life, and mmm, I don't know if that is adaptability or creativity, or [G1.5] Problem solving [G1.2] Yeah problem solving, but they, mmm, you know, yes it's not done intentionally, but it does happen, [G1.5] That's life [G1.4] ...like you know problems that they encounter throughout different classes, that they need to do, and we never had, you know, big tantrums or shouting or unhappiness, that's life [G1.5]
	Develop over the study period	It's just part of their development [G1.4] But I think to some extent it is done, when you look at first-year practicals, then 2 nd year practical and then especially 3 rd year, the whole manner, many of our subjects in the 3 rd year is more problem resolution such as the production line or product development, it is much more stuff they have to take on almost as projects, and each one has a role, and they have to rely much more on their own inputs and if they do not do it then there is not a product on the table, you know, they should actually think creatively, because you send them to a place and say okay now identify something and now you have to make something. I think over the three years there are several opportunities, it continues to change, and I also think different lecturers have different ways of teaching, and different parts of the work, because we have such diverse subjects, you cannot present everything in the same way so the entire curriculum is like that and you cannot say yes, but we like it this way or this way, some like it and some do not like it [G2.7]
Role model	Lead by example	And I think it is the way we handle it, when she cut that hole in it, I said it is not the end of the world, do something about it, you do not have to throw the jacket away, you can do something about it [G1.3] That is something important, you, mmm give the example, or you live the example of these skills [G1.F] – Yes [whole group]

Theme	Category	Quote
		Showing them how to handle the situation. [G1.F]- Yes, and I also will tell them, mmm, when I want to prepare something at home perhaps I haven't got all these ingredients but then I , whatever...and it's not a disaster, mmm you can do it. You don't have to follow a recipe, like exactly, like a formula [G1.4]
	Stay calm	You do get those students who are into the detail and they want to have exactly 200grams and then there is just 180grams but I mean we teach them that its fine [G1.5] It's going to be all right [G1.4] Yes, it's not yellow cheddar its white cheddar so it's the same... [G1.5] Its salted butter not unsalted butter [G1.4] I think they encounter it and they do adapt, in the end if they have that wonderful dish that they like and they take home to their parents, they realise that it wasn't that important to have that 200 grams and they end up being fine [G1.5]
Outside the curriculum	Being a student	So I gather that you consider adaptability actually as part of being a student, it is not something that should be in the curriculum [G2.F] - Yes, totally part of being a student [G2.4] Part of life [G2.7] Yes, I think day are confronted with that each day [G2.3]
	Creative personality	I think we are working with students that are really quite creative. I think that is in their DNA our students, and they are creative I think they can do something really creative to adapt to...a problem [G1.3] Yes, one of my students had a hole in her 100% wool jacket with the over locket and so she must do something, so she added very very nice lace on it, so somebody asked her where on earth did she buy it, so that was a problem, a very big problem yes, so she used her creativity to add something to it [G1.3]

Risk taking

Theme	Category	Quote
Create opportunity to take risks	Assignments	It's giving them assignments to do, actually giving them the opportunity to take a risk? [G1.1] Explain [G1.F]- You have to (long pause) develop or create a new restaurant, so you can either....it's the students choice, am I going to do it, like every other person, or am I going to take a risk and try something [G1.1]
	Real life scenarios	We once had a place in town where they had to look at student housing and propose a makeover and they had to think and give practical examples, and the real costs involve, and understand it might have been more of a risk presenting the examples and options for a client, because their names were also on the assignment, so they felt themselves now being exposed to really clients in the industry. [G2.6] Product development, usually if someone, the current one they now do is for a guy in the industry, he wants to develop products and is looking for some additional options and in the end they must make him a presentation [G2.7] And what about that extrusion programme you do with the engineers, it is also a type of risk if the product flop [G2.6]
	Case studies	Yes, and I think the case studies... [G2.6]
	Assessing the end product	Mmm, and afterwards when you mark an assignment you obviously point out what can happen if you don't risk ass well [G1.6] So let's talk about the assessment then of these risk take skills, how do you assess risk taking? [G1.F]- I don't really assess that. [G1.3]

Theme	Category	Quote
		No, I don't think you can assess that cause you don't have the proof of it, and it depend on how it came out on the end, did their risk work or not, you know [G1.1]
	Highlighting the flaws	And you point out the flaws to them that is obvious in their plan for they present you a plan and you point out the flaws, what is going to happen if you take this risk, it can't be too large of a risk, should you have done something a little bit less risky. You have to point out the flaws. [G1.6] It's a formative assessment, so you actually help them during the process [G1.F] Mmmm (agree) [G1.6]
	"Practicals"	I think product development [G2.4]
	Financial risk	I think the risk comes in, in terms of the financial stuff, because that is usually where I have to stop them and say you know, there is no way it can work, it is simply too expensive, ... perhaps one should tell them they have to pay for the products, I think maybe do it in the same way as the engineers, tell them you have a budget, you should use is and stick to it and in the end we are looking for a product [G2.7]
	Allowing them to be creative	Okay, so that also links to the creativity, a little thinking out of the box [G1.F] – Yes [whole group] Doing the unexpected [G1.1] – Yes [whole group] Mmm. I don't know if there is a difference between risk taking and creativity because in practical classes I mean one of my biggest roles is to teach them that this is a recipe, it is just a guideline, and you have to make sure that it looks beautiful and tastes wonderful when you are done and often they will come to you and they will say, can we ad, can we ad chilli, mmm, can we use cinnamon, you know and, mmm, and then I give them the opportunity. I will say yes what do you need, as long as it's not expensive stuff they can add cinnamon in that, and then I think the assessment comes in how it tastes afterwards, you can definitely see some students have the ability to be creative and think, and add a little bit of mayonnaise, a little bit of chilli and there you go, and you have something much better than the original recipe was, so I think, I am not sure if it is a risk or creativity, but I definitely encourage it, in creativity, in practicals [G1.5] Yes, they often take risks because, we don't always limit them in terms of, okay, sometime we say if the ingredients are too expensive, some of the students can put strange things together which works in the end, but it's not really a risk, you know they do not really carry the financial risk, so it is a risk of something that might not work, but also, they are not afraid of putting stuff together [G2.7] ...adventurous [G2.1] Yes they are adventurous [G2.7] And creative [whole group] - Yes, [G2.7]
	Second opportunities for tests and exams	The only thing I can think of is with tests, an additional test, which I tell them, remember, the two best marks count, so if your marks is worse, then the chances are now good that you... then it is a risk, even I think by writing second opportunities [G2.6] That's what I wanted to say, writing a second opportunity [G2.5]
	Optional questions in tests and exams	I also think risks increase when you give them one or more options in a test or exam, you know, it is the same question, you can either answer question one or question two [G2.5] Yes NAME used to do it, it was long questions and you had to decide carefully [G2.6]

Theme	Category	Quote
Theoretical knowledge	Learning the theory	I teach them how to handle risks. Okay so if there's a risk, how do you handle it and how do consumers handle it, and its not wrong to take risks [G1.4] Is that more in a theoretical kind of way [G1.F] - Yes, yes [G1.4] Can you give me an example [G1.4] - Mmmm, if you want to buy a food processor and haven't got all the information about the exact one that there is, what you are going to buy, mmm you can think for yourself and answer the questions that you are wondering about, mmm and that is a type of risk that you take to buy that food processor, you actually want a Kenwood and here is something else, that is a type of risk, so mmm [G1.4]
Outside the curriculum	Student experience	But again, when it comes to being a student, it is not necessarily subject specific [G2.F] - No, it is not subject specific. [G2.6]
	Work experience	I don't think in terms of a specific module, but I think we motivate them to get internships or work during the holidays and exposing themselves and getting work experience, I think it is a type of motivation, yes, to be exposed to a risk [G2.5] Yes, and the hard life outside [G2.F] - Yes, yes [whole group] But again it is not compulsory for them ne [G2.F] - No, no [whole group] They are encouraged [G2.F] - Yes encouraged [whole group]

Creativity skills

Theme	Category	Sub-Category	Quote
Creating opportunity to apply creativity	Integrated with other skills		Problem solving, adapt it, to change it, because its not working, and creativity and at the end [G1.3] ...time management as well [G1.6] I think thinks sometimes with the mistakes and somebody has to make a skirt, it links to risks [G2.7] Like you said, they wanted to do something, and it does not work, it is a risk [G2.F]- Yes, and they should plan, for some of the decoration, decorations to put on a bag must be put on before you sew the edges, and then they suddenly come up with a finished bag, and then they actually wanted to do it , so they have to do some planning [G2.1] And the creativity and adaptability are almost joined together [G2.1] - Yes, yes [whole group] Yes and I mean you do not have specific section [G2.7] To be adaptable you must be creative [G2.1]
	Creative field of study		Okay, so when we look at creativity, do your students get the opportunity to develop their creativity skills [G2.F] – jip [G2.6] - It is almost all they do [G2.7] Tell me more [G2.F]- I think they have quite enough time in different fields to be pretty creative, and a lot of students will say that they come here so that they can be a little more creative. Well that is what I

Theme	Category	Sub-Category	Quote
			have heard here and there. Other subjects were boring for them, they want to be a little more creative [G2.6]
	Creative modules		I think the fashion design module allow us a lot of opportunity [G1.6]
	Practical	Clothing "practicals"	<p>What about in clothing practicals, they then choose their own materials, for instance when they make their corsets in their second year, mmm they can choose or bring their own materials, you also have the risk of what material or what accessories or what you are going to use, mmm, and also your creativity of how you are going to apply that, and then she formally will assess how they used it and what the outcome was [G1.1]</p> <p>But I also think for example in NAME practicals, if there is some of the students who does creative things and sometime it does not work, there ideas which they had. [G2.6]</p> <p>Yes, for example the denim bags they have to make and do something with, they do not always come with something that is workable [G2.1]</p> <p>Or skirt they need to work on the patterns, make the patterns [G2.4]</p>
		Ingredients in food practical	<p>Yes it is, you know if you suddenly run out of ingredients, now what, your process must go on, and you cannot force anything in, and it has an effect on the rest of the stuff as well [G2.7]</p> <p>Yes, my students, they said it was the machine's fault that did not make the hem right, it did not work, so they asked if they can do the hem in a different way, when I said to them, as long as your product look professional in the end, so there is an opportunity for it, it depends on the lecturer to not be too rigid, to allow them and say, good, bring the solution, and not say this is how to do it and it's the only way [G2.4]</p>
Set realistic expectations (assessment criteria)	Pragmatic creativity		<p>My biggest problem is to turn this free spirited creativity in a professional creativity. Then I tell them, I don't want a concept board with dried roses and such ornaments, because it will not work in a professional environment, that kind of you know sequins and things, because you get a few of those creative ideas, and then to put those creative thinking in a professional form. So I will then evaluated strictly in terms of appearance, and also give them guidelines of what they should keep in mind and so, so they can be creative, but within limits. [G2.6]</p> <p>Yes I think it's quite important to teach them realistic creativity, creativity in itself is not really that difficult, but to execute it and the professional execution thereof, those two worlds lie very far apart. I think it's really a skill that they have to learn to be creative realistic [G2.3]</p>
	Creative problem solving		<p>I just think we should be careful not only to think about creativity as something nice to make and create, because in my subject it's a lot about creative problem solving as well, I tell them my memo is not a fixed memo of this is right and this is wrong, both answers may be right but you must be able to motivate the one you have chosen then I tell them and I practice it in the class, telling them to vote and one group must say why they choose an answer and motivate it and the another group must explain and then I said, see both is right, but it depends on how you motivate it [G2.4]</p>

Theme	Category	Sub-Category	Quote
			This is an important point that you are making, because if you think about the industry in which your students will work, there is not going to be expected of him to be creatively creative with a product that they should design, but it will be expected of him to make creative decisions about processes [G2.F] Yes [G2.5]
	Financial risk		But I think we do it, because the moment you bring the budget into it, whether it is your budget or the production budget, so you, you know they have to evaluate the product and the ingredients and where they get the ingredients from, so they don't always realise, then I say, listen there is no way this thing can work, I mean if you are going to use chocolate ... [G2.7]
Acknowledging and rewarding creative skills	Encouraging		But when you assess then, do you actually acknowledge that creativity? [G1.F] - Yes, definitely and I will call them and tell them, I am proud of you, this is very creative, give them extra marks for that [G1.5]
	Evaluation criteria		How do you assess it? [G2.F] - It is always in the evaluation criteria [G2.6] 5 marks for an assignment goes for creativity [G2.4]
	End product		How do you assess it? [G2.F] - You look at the final product, and you know how you, I mean really, there is not necessarily a section that says, there was creative thinking, but in the end you evaluate the product in the end, and then you as lecturer must say, okay, I mean, it's almost half unconsciously you then say, okay they had initiative, okay we give them a point for it, although that's not what I wanted it... [G2.7] Yes, there was no point for creativity or anything, because, that creativity to solve the problem is actually something else, but in the end you evaluate many things as you evaluate the end product at the end [G2.7] Yes, and in the end you have to solve the problem, you have to deliver a product at the end, and how did you get to that [G2.7] So the end product is assessed and in implies that all these different processes meanwhile took place [G2.F]- Yes [whole group] Yes, some of it to a greater or lesser extent [G2.7]
Not being rigid	Memo		I agree with NAME that in a case where creativity is in terms of a question, lecturers must give the memo more freedom to fluctuate, for I have moderated where they were so strict according to those things and I disagree, because if you read carefully, the student may have said something else, but it is actually right in terms of the question asked, but it is not on the memo, so I think we also have to give students more space in that respect [G2.6] Because people don't live according to a memo [G2.F] – No [whole group] But it works like that, and I NAME was my moderator and I must say she really gave me a useful way to construct a memo's, to say, okay, you give so many points for facts but then, in your memo you build stuff in like creativity, that is, if a student has answered the question and came up with something that actually, you did not ask, but if you read the question, you cannot mark it wrong, it means your question was not formulated properly, or it is not quite right, but 8 students gave the right answer, and there are 5 that,

Theme	Category	Sub-Category	Quote
			<p>think in a different way, so you can say okay, maybe here a ambiguity, or maybe it's just students who think differently about the matter [G2.7] - Exactly, yes [G2.6]</p> <p>Having a different perspective on it [G2.6]</p> <p>In that respect a subjective memo help me a lot [G2.4] – Yes [whole group]</p> <p>To not have a fixed memo of right and wrong, and especially 3rd years level, I say good 0 is no, it is totally wrong to 5, okay it was a good complete answer with creativity or whatever, working on a sliding scale [G2.4]</p>

Time management skills

Theme	Category	Quote
Ground rules	Setting rules	<p>But I notify them before class, you know, in the first period I tell them this is how it's going to be, and then I never have problems with it, except in really extreme situations where students have valid excuses [G2.6]</p> <p>Yes also the production line, I tell them they have 3 practicals, they must plan who is going to do what when, in order to be finished on time [G2.4]</p>
	Deadlines	<p>Assess it if they hand it in, and in what state it is, and that is time management, if they are not finished they are not finished. And isn't that bad time management? [G1.4]</p> <p>And also to order the food, they know that it has to be, the order form has to be in by Thursday because (Name) goes to, if it's not, they 'gonna' have to see what they need to do, so they know the week before, because they go there on a Thursday, so they need to, to know by Thursday morning by 10:00, the order form has to be handed in, so that is also part of time management [G1.2]</p> <p>Group work, does time management take place? [G2.F] - Yes, I think with everything, you have deadlines, and there is certain things that must be done, and I think everybody practises crises management [G2.7]</p>
	Repercussions	<p>So you don't give them extra time, be lenient - Mmm, in some cases, but that was part of the exercise [G1.4]</p> <p>And sometimes we deduction, marks, you allow them to go three days late but they get less marks [G1.6]</p> <p>And if they miss the time slot for the order form, then there's nothing to prepare, so they cannot miss it – Yes [G1.4]</p> <p>Yes, they may not hand in their assignments late, it is not even an option, then I penalise them heavily, so it is just not a problem [G2.6]</p>
	Being firm	<p>But the thing, there is a date and it must be submitted and you regularly find that the students struggle, when they start to ask you, when you said it must be in by one o'clock, somebody will ask, how important is it that it should be in at one, then I say, it is very important, or if I just said it must be handed in Tuesday, then they ask, what time on Tuesday, technically it can be 12 o'clock at night, but if it is a hard copy, then they will find nobody there, so, yes, most of them give in on time, so I think that even though their time management is not always so good, they get used to it and they very quickly start doing something because they know that thing must be in on time [G2.7]</p>
Opportunities to apply time	Time management in "practicals"	<p>Okay so time management is definitely a very important part of your curriculum although you don't teach them time management per se, it's integrated in all the practical activities that you do and you, your assessment of your proses and product includes if they can keep to the time schedule [G1.F]</p>

Theme	Category	Quote
management skills		So time management can be implemented in practicals [G2.F]
	Real life scenarios	In the community development they also need to beforehand work according to a timeframe, because they get a certain amount of time they need to keep these people busy, or they have to keep within this timeframe and it can go both ways, and then also preparing the food and bringing it there on a certain time or having it ready within that time [G1.1] For this entertaining course they have to dish up at a certain time and, mmm, for guests that are coming [G1.4] Guests are there [G1.6]- Yes there guests are there and whatever they have to dish up now, but I think organising this thing you allow ten minutes for cutting the onions, this must cook 20 minutes, so you must allow that... - Yes [G1.3] Its planning – [G1.3] Yes it's definitely planning. For that also they have to plan and have their order form at a certain, so definitely, time management is a part of it yes [G1.5] They need to know that they need to leave here in order for us to be there by 10, to start at 10, so we cannot leave 10 to 10 to be there, so there could be like other things on the road, so what I did was which I think is now problem solving, wants to pack everything the day before so that the next day is just a matter of taking, in order for them to be there on time, cause there is no way for them, they can do the cooking on Thursday morning and still pack up and still be there an leave at least at 9 to be there at 10. So that is, they know that it is time management to prepare beforehand, the day before in order to be on time [G1.2]
	Student experience	I also want to say, just by being there [G1.1] If you say being here, being a student? [G1.F] - Being a student, because they have to study, they still have a social life, they have to eat, they have to sleep, so mmmm [G1.1] It is once again the environment that support all these skills [G1.F] - Yes, Yes [whole group] They come to class at 8, they write a test..... yes [G1.2]

Overview of implementing skills

Theme	Category	Quote
Teaching and assessment strategies	Skills are integrated	...it seems to me many of these skills is integrated with the curriculum, [G2.F] Then leadership skills also connected with the teamwork [G1.F] Otherwise they need to use their problem solving skills and adapt [G1.1] What is that, problem solving, was that creativity was that [G1.4] Problem solving [G1.2] Plan seeking [G1.2] Mmmm, I got to add to this, it is our product development course, mmmm, and that product development course it is risk taking the whole time, creativity, it is problem solving, all of this coming together, mmmm, to be able to have a product at the end of the semester [G1.4]
	Unplanned implementation of skills	Some of them you are not really saying you are doing this skills I think it just comes, like they don't think about it, like today this is what I am going to look at, or this is the skills, it just come like when you call a group discussion might know okay fine communication, but then something that is problem solving come in and so it's not like we going there in class

Theme	Category	Quote
		thinking that this is now on my planning, this is now the skill that I want to do, it just comes, you just have in mind today I am doing group discussion and from there you know okay obviously we are going to communicate and then there will be some question reason, they need to answer, problem solving or other ... or other times you go in their problem solving and maybe someone didn't bring their books or they forgot something, so now you cannot just say go, like dismissing the class, you need to think of other things they would probably do, so you don't plan it, you can say today okay this is it, like I said possible skills we do, do them, but it is not something that is written down as it comes in a situation, which is again, it come naturally, I would say [G1.2]
	Develop over the study period	I am pretty happy with every one of those points. I think we do address all of them and I know, mmm, where they start with their food practical and they don't, you know, they are nervous and they don't know anything, mmmm, and by the end of the year that they have done food practicals, how confident they are, creative, and, mmm, amazing, they just óntpop' wat is die engels daarvoor,[pop, what is the English for that] they just, they go into the entertainment class and you, you can't believe it is the same student [G1.5] There is really a big difference between the first year and the second and third year [G1.3] They really just do develop, I really can say that they develop [G1.5]
	Assessing the end product	...your students, they do these things, which is embedded, integrated, do you assess that, how do you assess that? [G1.F] - Very often I think it is assessed on the end product, in food product development, if they haven't done it right from the beginning and gets successful product at the end, they wouldn't get the mark. When it fail, they have to start half way and repeat and get to a good result. And in the end you get, give a mark for the final result [G1.6] Which is the product?[G1.F] - Yes, which is the product, with the design, fashion design garment as well, you get mark for the end product. You don't give necessarily, you don't have on your marking sheet necessarily, you do have parts of it, but you do have some main features that you look at and the evidence that you have of that. But you can't really give them a mark for the management that they have done, you give them a mark for the fact that the product is complete at time [G1.6] I think the 3D design that they do in interior as well, if in the end they were assessed, the work that they created, they actually get the marks for what you assessed [G1.1] So during the process they display these skills but you don't assess these skills per se, you assess the end product that is developing through these skills [G1.F]
	Evidence	I like the word evidence. I think it's the keyword here, its, mmm, even their report cards at the end of the year that would reflect on their time management because lots of them do not even have all the main courses here but in other departments, so to plan their time in order to be able to fit everything in, and I think that is part of their life's if you don't do that, your marks at the end of the day wont reflect that [G1.5] Mmmm what is a testimonial, mmm, at the end of the day, if you can give the student a testimonial, you are going to say things like, this student can think for herself, that is also a little bit of assessment [G1.4] Yes acknowledgement of your skills [G1.F] - Yes, yes [whole groupe]
	Teaching theoretical knowledge	My question is now, these list of skills, how do you teach them these skills in your theory modules? Let me ask a question, how do you teach in your theory modules? What's the main format or strategy that you use in your theory modules [G1.F]- I remember learning these things in theory in home economics [G1.5]

Theme	Category	Quote
		<p>Do you still teach these things [G1.5] - Yes Yes [G1.4] Learning how to make decisions doesn't make you a good decision maker [G1.5] But, learning how to manage your time... - Yes [G1.1] How to handle risks... [G1.4] Because we separate our theory and our practicals, I think that it is what's so wonderful of our course, you do it in theory and then you do it in practical, and you can see what is happening, what is the theory [G1.3] In your food class, in the theory you might tell them how to manage your time to be able to do this within your timeframe, and then they come and apply it [G1.1]</p>
	Real life examples	<p>I use a lot of examples, and again perhaps it's something from practical, so yes I use a lot of examples [G1.4] Do you lecture and then you have discussions? [G1.F] - Yes, I lecture, I, mmm, in this, mmm, yes, mmm, it's examples from life perhaps [G1.4] So you bring real life examples into your lecture [G1.F] – Yes, yes [G1.4] ...a lot of these skills are actually tested or assessed in situations where its more, where there is reality involved, your community... [G1.F]</p>
	Repercussions	<p>Yes, yes, some are obviously only in the class, they have the penalty of less marks, but you, no obviously, there are those where you do have other people involve, might be a bit bigger issue for its their friends who often is going to be the guests and you do not want to look bad in front of them [G1.6] Or their lecturers [G1.4] So the repercussion are obvious [G1.F]</p>
	Variety of methods	<p>I have various methods, I lecture, we have whole group discussion, we have small group discussion, they have presentations, so it's not just one method I use [G1.2]</p>
	Apply in "practicals"	<p>Once again I am hearing practicals [G1.F] – Yes [whole group] But I don't think learning it in theory makes you a better communicator, learning what is communication and knowing the definition doesn't make you a better communicator. [G1.5] Yes, I think you need to do this practically in reality – Definitely [G1.5] You can't learn on paper how to be a leader [G1.1] I think our course is a practical course – Yes [G1.5] Because we separate our theory and our practicals, I think that it is what's so wonderful of our course, you do it in theory and then you do it in practical, and you can see what is happening, what is the theory [G1.3] In your food class, in the theory you might tell them how to manage your time to be able to do this within your timeframe, and then they come and apply it [G1.1] your guests arriving for practicals, where they are working with other people and not just in their save class environment, is that a true observation [G1.F]</p>
	Apply in real life situations	<p>They apply it, yes [G1.5] So you teach them and they apply it [G1.F] – Yes [whole group agree]</p>

Theme	Category	Quote
	Monitoring work experience	...and there in a module somewhere assessment must take place for it, saying they worked at this location for so many hours, and that place say yes they have worked here, because there they will encounter a lot of the skills that you unfortunately will not learn here, uh, you can only prepare them [G2.3]
Positioning of modules in curriculum	Additional module (from second semester in first-year)	<p>Induction programme [G2.F] – Yes [G2.3]</p> <p>It must be a second semester module, they must first get on their feet and discover what they need [G2.1]</p> <p>...because the problem with the first-years coming here, specifically, they come here and anything for almost those first two months are just too overwhelming for them, they get totally lost, it really is information overload, because everything is said to them, in AGLA, in all these things, and it's just, that stuff is gone, they cannot remember it, I mean, now this quarter it seems for the first time the first-years are calmer, and now they can start to take something in [G2.7]</p> <p>I think a person can consider again, mmm, for first-years, almost something like it was done before, perhaps on communication, on leadership, we have that idea that they come from the school and for some reason someone told them about leadership, but if you were not in a leadership position or on a camp, you probably have never dealt with it. But to give them added value, and tell them about humanity, and not only this the subject field and it consists of this and that. You want to do this semi integrated in your class, but you have a very tight schedule and some things just goes by, and it may sometimes be important things, like exactly how should a PowerPoint look like, what is good, what is not good, what is professional behaviour, how do you write an e-mail, these types of things I think is really life skills, and, so it is my suggestion that one might seriously look at such things, for them, so as part of consumer science, a kind of a life skill ... [G2.3]</p> <p>No, you know I do not think an induction programme, you have to make it a whole module [G2.7]</p>
	Divide/integrate into modules	Or a little piece each semester, a day, each semester where they only do that type of stuff [G2.F]
Outside the curriculum	Work experience	<p>And I do not know how it works, don't they get any marks or recognition for work that they have done? [G2.3]</p> <p>Not at this stage, however we are planning it for the new course [G2.4]</p> <p>Because I think it is terribly important that they are absolutely forced to, but I think it will be easier when they come from a certain field.... [G2.3]</p>
	Reality outside the curriculum	<p>Yes, I want to say, a lot of this is really life, it is hot in here, we get a fan [G1.4]</p> <p>We don't plan for a fan, mmm - It comes naturally [G1.2]</p>
	Student experience	...it also sounds as if many of these skills are developed by the students as part of the complete curricula of being a student [G2.F]

APPENDIX L:

FOCUS GROUP DISCUSSION TRANSCRIPTIONS

Focus group discussion transcription

Two focus group discussions took place which is labelled G1 and G2. Participants in group one (G1) were numbered one to six (1-6) and participants from group two (G2) were numbered one to seven (1-7). For example, a quote from participant four from group one will be labelled [G1.4].

Transcription from Group 1 (G1)			
Facilitator		How do you think these skills should be taught and assessed. So we can talk about how it can be taught, but I think teaching and assessing actually goes together, so we can discuss it together, but if you prefer we divide it into teaching and then assessment. Let see how the conversation goes. So, let's start with the first one. Communication skills. Your students, how do you think you should teach them communication skills, how should you assess them.	
	G1.2	I will say by having lots of presentations it can either be power points or just doing presentations in class, not always but basically what are they doing. For my other fourth year module because they were teachers so I thought we could start from there to practice by having presentations to assess their voice, because some of them their voices are very low or they could be shaking and ja, that basically, and then the posture obviously, during my fourth year module then they can assess whether the language and grammar and other things are done properly	
Facilitator		Good. Thank you. And do you have a specific way of assessing their presentations, specific criteria	
	G1.2	Yes	
Facilitator		Which includes the language, the grammar etc., the voice?	
	G1.2	Yes the voice	
	G1.6	In this specific module that she is talking about I agree completely, they should be able to communicate with the class. But apart from that module I don't think it is actually our task to teach them to communicate, we can allow them the opportunity to develop their skills, but to assess it, I won't agree on that one. I think if you take most of these skills there is a complete other degree that you can follow to deliver these skills and I do not want to say we need to be a communication degree as a prerequisite to start with a B consumer science degree. But I do agree that we will have the opportunity to allow them to develop these skills and give them the opportunity to speak up in class and also to present something but I do not want to assess it, accept for those specific modules she talked about, the teaching module, but there is also the community development module in which they do that, and then obviously post graduate students communicate their proses very often, but I really do not want to have to assess in each module the students communication skills.	
Facilitator		Do I understand correctly, you say with the training of consumer science students you work within a specific scope of practise and you don't want to overlap with another qualification where they are more focused on those communication skills	Participants Nod heads and agrees
	G1.6	Yes where they actually assess those skills, I can see the benefit of developing it, but I really do not want to assess it and in the end maybe have to give the student a poor mark because they don't talk, speak out loudly, because they cannot communicate that easily with people, speak in their mother tongue, something of that kind. I will not go for that.	
Facilitator		Anybody else?	
	G1.3	I think I agree with that, I think we must help them, to present it in a fashionable manner or something	

Facilitator		So you see a way of helping them with developing it but not formally assessing it	
	G1.3	No no (meaning no not with the assessing) especially with the posture and speak up, <i>those things</i> that is not acceptable, but when you are delivering a lecturer or speech, but I think we can help them	<i>those things</i> – showing movement with hands in the air
	G1.5	I think because we have a lot of practical sessions, they do have to communicate, they have to communicate with each other and they have to communicate with us. So I think more than other more academic degrees they do learn to communicate during those practical lessons. I mean during theory lessons, theory is theory, Mm but I think they do have a lot of opportunity to communicate	
Facilitator		So you see it as embedded in your normal teaching activities	Participants Nod heads and agrees
	G1.5	Yes. I mean every kind of job that they will do one day does not necessarily mean that they will do a presentation, they just need to communicate with their peers and I think that our students do that	
Facilitator		Okay, you want to ad	Pointing ad somebody
	G1.4	Ja, Especially in the practical classes but as well in the normal theory classes you ask questions, they have to answer and, buzz groups or whatever and those who don't want to communicate is not going to communicate in that situation for that you are going to, they are going to be exposed to that in the community development class and things like that.	
Facilitator		Will they then learn to communicate there?	Referring to the community development class
	G1.4	They will not learn but they will have practise it and add more confidence	
	G1.1	But they do have a little bit of theory there, also of communication and how to communicate let's say with her community, so it is more in a more informal matter than in a presentation, actually going into a community and interacting with those people and how to communicate with them, mm, and they all have to do that, they all go in there and they all have the opportunity in that little time space where they have to communicate	
Facilitator		So, I pick up that there is basically two levels of communication, one in the corporate world and then in the community, and your students are during their training prepared to work in the community and if you don't want to go into the corporate world of communication it is part of another qualification, is that correct	
Group		Yes	Participants Nod heads and agrees
	G1.6	Ja, I think they get opportunities but not a formal module in corporate communication. Quite a number of our students prefer to take modules in the department where they do get the opportunity	
Facilitator		So it's additional?	
	G1.6	Ja, it's completely additional, it is not part of their credits, and it's also not part of their electives, but they have the opportunity to take it additionally, but most of the time when they aim for a career in a field were that's extremely important they do it, they take it.	
Facilitator		And it is by choice	

		Ja	
Facilitator		We talked about verbal communication, what about written communication. How do you think students should be trained to be good writers? professional writing	
	G1.4	They do a lot of assignment and we are actually very strict on that, on the way that they write.	
Facilitator		Strict in terms of what? What do you look at when they do their assignments?	
	G1.4	Mmmm...	
	G1.3	Referencing...	
	G1.4	Mmm, ja referencing definitely and mmm, the way that they present it as well, the content, but also mmm of course the content, but also the way that they present is	
Facilitator		Technical?	
Group	G1.5	Ja, Technical	
Facilitator		Language	
Group		Yes	The group agrees
	G1.2	Language and sentencing construction , spelling, grammar	The group agrees
	G1.6	No sms tenses	
	G1.1	And no google translate	
Facilitator		But do you actually give them any kind of support or training before they have to write an assignment? Is there any training that you do with them?	
	G1.6	We do give them the requirements that we set and mmm half of them follow and half of them follow only after you take a few marks away	
Facilitator		Do your students for developing writing skills, Do you're students also have a compulsory module in their first year that is general for all the students that is for academic literacy?	
	G1.6	No, only the one they write a mbt test and those of them that get a mark lower than 70% for the mbt test, they are forced to take a module, it will be great but we don't have a compulsory module.	
Facilitator		So if you have to train your students in writing skills, do you think there is a way you will be able to do that in your curriculum?	
	G1.1	Once again I think it is not our, it is not our responsibility to teach them to write.	
	G1.3	Actually we guide them through assignments with the correct way of doing it	
Facilitator		So you don't have formal education	Participants Nod heads and agrees
Group	G1.4	No no not a formal one, were guiding them through it	
	G1.6	I would love it if they could have a module in which they could actually get a mark for learning how to do that, we could still guide them but that would be great if they can have it before they start to do assignments for us.	
Facilitator		Do you wanted to add something	Pointing
	G1.4	Some of our students do take a course in journalism so, mmm, if they are heading for food writing or whatever, they go on with that	
Facilitator		Is that part of the curriculum or an addition one	

	G1.4	No its additional, they can, there is a scope in the setting of, of the whole course for extra modules so if they are interested in that they are able to	
Facilitator		There is an opportunity Anything else you want to add to the communication skills training? As we go along and you have something else you can think about you are more than welcome to add it to the conversation. Then we move on to the English language proficiency. We actually did touch a little on that	
Group		Ja	Participants agrees
Facilitator		If you think about your students and their proficiency level, how do you see training taking place for language	Participants looks uncertain
	G1.6	I think more of them are actually able to use English properly than they consider themselves. They are not confident and when you convince them that although it is a second language, although you don't expect them to do it in the same way as you will a first language they can still do it. But the students do not have the confidence and being scared to use English, but obviously that is going to change soon at our university.	
Facilitator		If you say you have to increase their confidence, how will you do that, how do you propose to do that?	
	G1.6	Mmm, I really don't know	
Facilitator		I think something about your module, what module do you teach where they actually have to give presentations?	Pointing towards the person presenting the module where they have to present
Group		STH that's the teaching module	
Facilitator		A teaching module so there they have to do presentations in English?	
	G1.2	Yes	
Facilitator		So that is one of the opportunities? But that is already in their senior year	
	G1.6	Yes its only the final years	
Facilitator		Do you see anything happening from the first year how you can increase the English?	Participants look at each other
	G1.6	Leave them with their English friends in the class, that's how.	
	G1.4	Change the language to English	
	G1.6	That's 'gonna' happen	
	G1.3	Maybe you must ask us that in four to five years' time	laughing
Facilitator		ICT Computer, Information, communication, technology skills	
	G1.6	They do take a course in that	

Facilitator		In which year?	
	G1.6	First year, both semesters	
Facilitator		And what kind of content do they do there?	
	G1.1	They do WORD and I think Excel, and mmm how to double click...I think they basically do most of your programmes that you would use, PowerPoint, Excel, WORD and in their first year interior practical they use this sketch up programme so we teach them how to use that.	laughing
Facilitator		And do you find your student when they get to their 4 th year they do have their ICT skills as needed	
Group		Yes	Everybody agree
	G1.6	Yes I think so, they got the skills better than I do, and obviously they have to use their skills to present their assignments or we expect it to be done properly and I think they can, most of the time they can do it better than me	
	G1.3	Doing the Excel, table and they are quite well prepared with that	
Facilitator		So if I understand correctly in their first year they get baseline training and from there they have to implement their knowledge and skills throughout the second, third and fourth year. So you never do extra training with them you expect them to do it themselves	
Group		Yes (all agree)	Participants Nod heads and agrees
Facilitator		And you find it to be enough	
Group		Yes (all agree)	Participants Nod heads and agrees
Facilitator		Anything else about the skill? Is it only in interior where they use a specific programme?	No one
	G1.1	Yes	
Facilitator		Not in any of the other modules?	
Group		No	
Facilitator		Interpersonal skills, interacting, getting along with one another	
	G1.6	They do work in teams in practical's. So we kind of force them together and it's not really necessary to force them together they work in ... as a group. Sometimes you can see that students they select specific people, members, but they would easily work together.	
Facilitator		Do you ever put them in teams with different people that you know their personalities differ or that their teamwork level differ, do you put them in groups or do you allow them to choose their own groups	Participants Nod heads to indicate no
	G1.6	Not always, some modules specifically food practical's they are assigned a co-worker, they would not select their own team member	
Facilitator		Do you see any other way in which you could teach your students interpersonal skills?	
	G1.3	I think we are lucky to have quite small classes and if they do not answer I pin point somebody, and we can see that quite easily because if they don't answer you or they don't always take part in it, then we could ask, what is your opinion	
Facilitator		So because they are in small classes you actually have to interact with everyone	

Group		Ja	Everybody Agrees
Facilitator		You can't separate yourself from the rest of the group	Everybody Agrees
	G1.4	And I think just being at varsity force you to interact with other people not only in the class situation mmm I think that is one of the big benefits of being at varsity	
Facilitator		You mean the whole environment	
	G1.4	Ja, Ja	
Facilitator		Supportive of developing these interpersonal skills	
		Ja, Ja	Everybody Agrees
Facilitator		But the question is, is it enough, so when your students graduate that they will be able to function in the corporate world or in the community with people who are different, because even in the university, you are kind of in a homogeneous environment, it's all students, now you have to work in another environment where there is really different people working with you. Are your student prepared for that, do you see in your training the opportunity for them to develop those skills?	
	G1.1	Once again in the community development, mmm, they have to go and work with people from the community and different kinds of people, different social classes, and cultures, different everything. We do expose them to it	
Facilitator		So they have the practical exposure	
Group		Yes	All agree
Facilitator		Anything else on interpersonal skills? Once again if you can think of anything please ad it.	Quiet, no body answer
Facilitator		Teamwork skills. (Name) mentioned something about working in teams, now there is a difference between teamwork and working in groups. In groups you just work together but in teams, there is different roles that you play and you work with one purpose and so on, how should we train our students to be good teamwork members, teammates.	
	G1.6	Some of our assignments, they have to work on a lengthy assignment as a group and then obviously they have to decide who's taking on which role and whose going to be the dependable one, who's going to submit the paper in the end, but I think that's the best way in which we can kind of help them to, improve their teamwork skills	
Facilitator		Is it more of a theoretical kind of assignment or does it have a practical component?	
	G1.6	Sometimes it will have a practical component they have to do a specific project which will involve some gathering of literature, deciding on a method, going through the practical and then writing the report. So it is on different levels, but there is the practical planning and then there is the actual project and in the end the report they have to write, so it could have contain levels.	
Facilitator		Any other place where you actually have teamwork?	
	G1.5	The third year have a, mmm practical, where they also have a lengthy assignment (entertainment) where they have to prepare a children's party or a picnic or whatever, and there are four people, four students working and they have to take on different roles and plan for about a week before.	
	G1.4	And the practical goes on the whole semester so they, they are working, not always in the same team, on preparing this party or tea or whatever	
Facilitator		Can I clarify, so they start with a team and then they change team members throughout the semester but on different practical's	
Group		Ja, yeah	All Agree

	G1.4	And then in some cases we do like a tea and part of the class is responsible for laying the table, some are responsible for decorations, whatever, and they have to work together, the whole class	
Facilitator		Anything else, in your community modules?	Pointing
	G1.2	We also did the same thing, taking different roles, mmm, I can observe that there was one who was good at communication, communicating with the group and obvious others was good at making food and then others will look at working one to one with community members so that was what I observed in the past so they can work not just as a group but as a team, because they know that they have to meet, for example last week they were here until half past 7, who was going to do what, so that we decided, what was responsible for what, so that there was a team and also when we go they knew this one was going to be responsible for a number of people, this one was going to be responsible for mmm ... to introduce or a number of things.	
Facilitator		So in the practical module they have the opportunity to clarify their roles	
	G1.2	Yes, and who is responsible based on their personalities, if one knows she is good at explaining things better in groups, other are good at explaining things one to one, so each person had a role, with making food cause they have to make food, so each and everyone knew well okay I'm good at making let's say lasagne other one will say I am making whatever okay	Agree
Facilitator		So they can identify their strengths	
	G1.2	Yes	Agree
	G1.1	Also to do with the planning, they have to work on budget, and they will have to order the products that they will need to make the food and whatever the product is that they will make that week so they will also need to all those before hand	
Facilitator		So if you think of what your students do in those modules, is there enough opportunity for them to develop teamwork skills. Do you think if you look at them at the beginning of and end of the module, is there a development	
	G1.1	Yes (all agree) Definitely	All nod heads and agree
Facilitator		Are you happy with what you have reached	
		Yes	All nod heads and agree
Facilitator		As graduates students when they leave, you are happy with what they have	
Group		Yes	All nod heads and agree
	G1.3	Ja...maybe they need a little more experience, but I think they will get there in the end.	
	G1.4	They know where the pitfalls are so they can still work on that, I do think that you learn much more the day that you walk in the workspace than here	
	G1.2	It comes back	laughing
Facilitator		Anything else on teamwork? Then leadership skills also connected with the teamwork	
	G1.2	Yes I was going to say that	that it is connected to teamwork
Facilitator		You discussed that you do that during a team, how does that happen, explain...	
	G1.2	I didn't really choose them to be leaders, I just told them that this is the task that they are going to do, so obviously they had to decide amongst themselves who was going to do the talking and then who was going to be responsible for whatever, because I	

		think that plays also on the personality, because I saw some of them are reserved, so they prefer to work as I mentioned one to one and work one to one person as to speak to a whole group, so that's what I observed.	
	G1.6	Leadership is not something that you can teach somebody. You are either a leader or you are a follower and I think you, the employer has to employ a leader if he want to have a leader, he can't expect us to deliver from a group of 40, we should not expect to have 40 leaders, or everybody cannot be a leader.	nod heads and agree
Facilitator		But do you have opportunity in your training for somebody who do not realise she is a leader to actually evolve into a leader?	nod heads and agree
	G1.6	They pop out, for you give a specific group and in that group somebody have to walk out as a leader and I think the opportunities is there but I do think students have more opportunities on campus, to show their leadership and develop their leadership than only in the class. I feel students have lots of opportunities to become leaders if they are inherently leaders but the followers won't ever be leaders	nod heads and agree
Facilitator		So once again, is this the wider environment that helps them develop these skills and not necessarily as part of your curriculum?	
Group		yes	All nod heads and agree
Facilitator		Although you do have the opportunities in your class	
Group		Yes	All nod heads and agree
	G1.6	In general classes we don't see there is always somebody who is going to do the talking on behalf of the group, if they want to request something, somebody is going to speak up and that will always be one of the leaders.	
Facilitator		You don't force students to take a leadership role	
		Yes (meaning no they don't) No	
Facilitator		So it come from themselves	
Group		Yes	nod heads and agree
	G1.6	If it would by accident happen that you select a group to work together where there is no prominent leader, obviously one of those ones have to take the lead, but that will perhaps happen by accident	
Facilitator		Then problem solving skills, when your students leave here, are they good problem solvers? How do you train them in problem solving?	
	G1.1	Mmmmmmmmmmmmm, Clothing practical	Laughing
Facilitator		What happens in clothing practical?	
	G1.1	There are lots of problems you need to solve. "why is this over locker not working".....	Everybody laughs
Facilitator		And who solves it for them?	
	G1.1	They need to solve it themselves	
		Without breaking the yarn	

	G1.6	I think exam papers you obviously have to give them problems to solve, that's one of the theoretical places. If they can solve it on paper hopefully they will be able to solve it in reality after the paper, they have written exams as well, I hope so	
Facilitator		You are talking about exam papers, so that is part of the assessment then?	
		Yes	
Facilitator		So you actually assess their problem solving skills, during teaching semester do you also have problems that they have to solve in theory	
	G1.6	I do give them examples of the kind of problem that I might through at them in the exam. So we do the examples throughout the semester if they really see it as problem solving, I don't know, but obviously they know in the exam they will get the new one, they won't get one that they could have prepared, they need to solve it	
Facilitator		Do any of you work with case studies? Do you present them with a case study, a problem that they need to solve?	nod heads and agree
	G1.4	In question papers a lot, mmm and they also have to improvise in the food lab a lot mmm, and that is also problem solving	
	G1.1	I do some class assignments and I know one of our other colleague's do it as well, were you give them a case study and they need to(show with hands)	
	G1.6	Some modules in our field give the opportunity.....	
Facilitator		But not all of them?	
Group		No most of them	
	G1.5	I want to add to clothing practical and food practical also, mmm in the first few practical's you run around like crazy because they ask you everything and then you start seeing how they start discussion amongst themselves their problems and solving it themselves and then in the second term around September I start being bored during practical's because then they don't ask you were do they find the boiling water anymore, mm they figure it out that they need to find the kettle, plug it in, and make their own boiled water.	Laughing
Facilitator		So it's their thinking skills that developing through the first semester	
		Yes, Yes	Agrees
	G1.5	And I think we give them that opportunity because often when a student ask me something I will through the question back at them and listen to their answer and see if they, you know, could solve it for themselves, cause most of the time they do actually know the answer	
Facilitator		Just to realise that	
	G1.5	Yes they need to realise that, they do know the answer	
	G1.4	Confidence	
	G1.5	Yes, yes, they do get the confidence to, to solve their own problem, its true yes	
Facilitator		Okay now I am going to through something different at you, don't you think it is because they get to know the environment	
Group		Yes of course	
Facilitator		But if you put them in a different location and ask them to do the practical, would they be able to do that?	
	G1.6	If they can see everything, but if it is locked away they will have to ask	
	G1.5	I think so, I think so, I think there are problems they would be able to figure out themselves, you know I think once you give them that confidence in, you know to make their own solutions they will start doing that	
	G1.4	The second years will not be able to do that entertainment practical	
	G1.5	No	
	G1.4	Definitely not, mm, but as they go through practise and they all get the knowledge and the confidence, I think confidence is a very important thing here	

		And the knowledge	
Facilitator		So if I can summarise with problem solving you do have in your theory modules some case studies and they have to solve the case studies, that's problem based learning, but also in your practical's they get presented with a situation where they actually have to figure out themselves how to do it Can you think of any other way where you can develop problem solving skills with your students?	Long pause
	G1.6	Sometimes reality cause that, you order something and it is not available so (Name) buys something different and they have to improvise how that should be prepared or they might asked for something ready prepared and it is not available, mmm, they have to prepare it, I think it happens in reality Which you can link to adaptability skills as well	
	G1.2	Yes	
Facilitator		That is a good one, let's go to adaptability skills, do you find that your students can adapt to these situations, do you need to guide them a lot, support them	
	G1.6	Give them the problem and they will eventually adapt there. (laugh) I think they can	
Facilitator		How do you teach them these skills? How do you teach your students adaptability skills? I mean, this is a reality situation, it happens, life happens, Do you have a specific approach that you implement? Can you set up the situation for me where they have to adapt?	Participants Looks uncertain
	G1.3	I think we are working with students that are really quite creative. I think that is in their DNA our students, and they are creative I think they can do something really creative to adapt to...a problem	
Facilitator		Can you give me an example?	
	G1.3	Yes, one of my students had a hole in her 100% wool jacket with the over locket and so she must do something, so she added very very nice lace on it, so somebody asked her where on earth did she buy it, so that was a problem, a very big problem yes, so she used her creativity to add something to it	
Facilitator		Do you ever put your students in a situation where you inform them that this is going to be expected from them, and then something else happens? Where they have to adapt?	Pause, Silence...
	G1.6	Never done that on purpose	
	G1.5	I don't think we do it on purpose, but I mean in the food practical it happens that we...the mangos are to green to use, then, you know they have to adapt, they have to make the recipe with something else, you know mm and they accept it as part of life, and mmm, I don't know if that is adaptability or creativity, or	
	G1.2	Problem solving	
	G1.5	Yeah problem solving, but they, mmm, you know, ja it's not done intentionally, but it does happen,	
	G1.4	That's life	
	G1.5	like you know problems that they encounter throughout different classes, that they need to do, and we never had, you know, big tantrums or shouting or unhappiness, that's life	
Facilitator		That's what I want to ask, how do the students react when things are not going their way	
	G1.5	Mmmmm, I have never had a problem	
		no	
	G1.5	You do get those students who are into the detail and they want to have exactly 200grams and then there is just 180grams but I mean we teach them that its fine	

	G1.4	It's going to be all right	
	G1.5	Yes, it's not yellow cheddar its white cheddar so it's the same...	
	G1.4	Its salted butter not unsalted butter	Laughing
	G1.5	I think they encounter it and they do adapt, in the end if they have that wonderful dish that they like and they take home to their parents, they realise that it wasn't that important to have that 200 grams and they end up being fine	
Facilitator		So you explain to your student the situations where they just have to adapt	
Group		Yes	
Facilitator		It is part of their development, it's not part of a specific teaching strategy that you imply?	
Group		No	Agree
	G1.4	It's just part of their development	
		Yes	
	G1.4	And part of any practical I suppose that is happening in practical's Life happens Ja, definitely	
	G1.3	And I think it is the way we handle is, when she cut that hole in it, I said it is not the end of the world, do something about it, you do not have to throw the jacket away, you can do something about it	
Facilitator		That is something important, you, mmm give the example, or you live the example of these skills	
Group		Yes	All Agree
Facilitator		Showing them how to handle the situation.	Agree
	G1.4	Yes, and I also will tell them, mmm, when I want to prepare something at home perhaps I haven't got all these ingredients but then I , whatever...and it's not a disaster, mmm you can do it. You don't have to follow a recipe, like exactly, like a formula	
Facilitator		Okay I think we covered the adaptability, but then it links to the risk taking and then the creativity. Risk taking, what you actually just now explained, when you do something else of what you thought of doing is actually taking a risk, cause you don't know what the end product will look like. But do you actually expose your students to situations where there is risk taking for them in terms of what the outcome may be?	
	G1.6	Yes, give them a test on a Monday.....	laughing
Facilitator		Isn't that risk taking for you	
Group		Yes	
Facilitator		But do you teach them any risk taking skills, do you give them opportunities to develop those skills?	
	G1.3	No, we tell them not to cut a hole in the jackets	
Facilitator		So it's not very specific. But then do you have any ideas on how you can actually expose your students to opportunities to develop these risk taking skills?	Long pause
	G1.4	I teach them how to handle risks. Okay so if there's a risk, how do you handle it and how do consumers handle it, and its not wrong to take risks	
Facilitator		Is that more in a theoretical kind of way	
	G1.4	Yes, yes	
Facilitator		Can you give me an example	
	G1.4	Mmmm, if you want to buy a food processor and haven't got all the information about the exact one that there is, what you are going to buy, mmm you can think for yourself and answer the questions that you are wondering about, mmm and that is a type of risk that you take to buy that food processor, you actually want a Kenwood and here is something else, that is a type of risk, so mmm	

Facilitator		So it's got a lot to do with decision making	
	G1.4	Ja, ja	
	G1.1	It's giving them assignments to do, actually giving them the opportunity to take a risk?	
Facilitator		Explain	Laughing
	G1.1	You have to (long pause) develop or create a new restaurant, so you can either....it's the students choice, am I going to do it, like every other person, or am I going to take a risk and try something	
Facilitator		Okay, so that also links to the creativity, a little thinking out of the box	nod heads to agree
Group		Yes	All agree
Facilitator	G1.1	Doing the unexpected	nod heads and agree
Group		Yes	
	G1.1	Cause we actually have a lot of students that will take the risk	
Facilitator		So do you give them the opportunity to do assignments like that	
Group		Yes , oe ja	nod heads and agree
Facilitator		So let talk about the assessment then of these risk take skills, how do you assess risk taking?	long pause
	G1.3	I don't really assess that.	
	G1.1	No, I don't think you can assess that Cause you don't have the proof of it Yes And it depend on how it came out on the end, did their risk work or not, you know	
	G1.6	And you point out the flaws to them that is obvious in their plan for they present you a plan and you point out the flaws, what is going to happen if you take this risk, it can't be too large of a risk, should you have done something a little bit less risky. You have to point out the flaws.	
Facilitator		It's a formative assessment, so you actually help them during the process	
	G1.6	Mmm, and afterwards when you mark an assignment you obviously point out what can happen if you don't risk ass well	
	G1.5	Mmm. I don't know if there is a difference between risk taking and creativity because in practical classes I mean one of my biggest roles is to teach them that this is a recipe, it is just a guideline, and you have to make sure that it looks beautiful and tastes wonderful when you are done and often they will come to you and they will say, can we ad, can we ad chilli, mmm, can we use cinnamon, you know and, mmm, and then I give them the opportunity. I will say yes what do you need, as long as it's not expensive stuff they can add cinnamon in that, and then I think the assessment comes in how it tastes afterwards, you can definitely see some students have the ability to be creative and think, and add a little bit of mayonnaise, a little bit of chilli and there you go, and you have something much better than the original recipe was, so I think, I am not sure if it is a risk or creativity, but I definitely encourage it, in creativity, in practicals	
Facilitator		But when you assess then, do you actually acknowledge that creativity?	
	G1.5	Yes, definitely And I will call them and tell them, I am proud of you, this is very creative, give them extra marks for that	
	G1.1	What about in clothing practical's, they then choose their own materials, for instance when they make their corsets in their second year, mmm they can choose or bring their own materials, you also have the risk of what material or what accessories or what you are going to use, mmm, and also your creativity of how you are going to apply that, and then she formally will assess how they used it and what the outcome was	
	G1.6	I think the fashion design module allow us a lot of opportunity	

	G1.3	Problem solving, adapt it, to change it, because its not working, and creativity and at the end	nod heads and agree
	G1.6	time management as well	
Facilitator		Ja that's the next one we have, it is time management skills Consumer sciences is a very practical curriculum also, so you have to work with specific schedules and also with your assignment, do you think you acknowledge or do you assess time management with your students specifically, do you have due dates?	
Group	All	Yes	All nod heads and agree
Facilitator		Tell me about it	
	G1.4	Assess it if they hand it in, and in what state it is, and that is time management, if they are not finished they are not finished. And isn't that bad time management?	
Facilitator		So you don't give them extra time, be lenient	
	G1.4	Mmm, in some cases, but that was part of the exercise	
	G1.6	And sometimes we deduction, marks, you allow them to go three days late but they get less marks	
	G1.1	In the community development they also need to beforehand work according to a time frame, because they get a certain amount of time they need to keep these people busy, or they have to keep within this time frame and it can go both ways, and then also preparing the food and bringing it there on a certain time or having it ready within that time	
Facilitator		So there is al ot of management also involve	
Group		Ja	
	G1.2	And also to order the food, they know that it has to be, the order form has to be in by Thursday because (Name) goes to, if it's not, they 'gonna' have to see what they need to do, so they know the week before, because they go there on a Thursday, so they need to, to know by Thursday morning by 10:00, the order form has to be handed in, so that is also part of time management	All nod heads and agree
	G1.1	Otherwise they need to use their problem solving skills and adapt	Laughing
		Yes	All agree
	G1.2	They need to know that they need to leave here in order for us to be there by 10, to start at 10, so we cannot leave 10 to 10 to be there, so there could be like other things on the road, so what I did was which I think is now problem solving, wants to pack everything the day before so that the next day is just a matter of taking, in order for them to be there on time, cause there is no way for them, they can do the cooking on Thursday morning and still pack up and still be there an leave at least at 9 to be there at 10. So that is, they know that it is time management to prepare beforehand, the day before in order to be on time	
Facilitator		Okay so time management is definitely a very important part of your curriculum although you don't teach them time management per say, its integrated in all the practical activities that you do and you, your assessment of your proses and product includes if they can keep to the time schedule	
	G1.4	For this entertaining course they have to dish up at a certain time and, mmm, for guests that are coming	
	G1.6	Guests are there	
	G1.3	Yes there guests are there and whatever they have to dish up now, but I think organising this thing you allow ten minutes for cutting the onions, this must cook 20 minutes, so you must allow that Yes Its planning	
	G1.5	Yes it's definitely planning For that also they have to plan and have their order form at a certain, so definitely, time management is a part of it yes	All agree

	G1.4	And if they miss the time slot for the order form, then there's nothing to prepare, so they cannot miss it Yes	
	G1.1	I also want to say, just by being there	
Facilitator		If you say being here, being a student?	All nod heads and agree
	G1.1	Being a student, because they have to study, they still have a social life, they have to eat, they have to sleep, so mmmm	
Facilitator		It is once again the environment that support all these skills	
Group		Ja, Yess	All nod heads and agree
	G1.2	They come to class at 8, they write a test.... yes	laughing
Facilitator		Something I think about, and now you have to tell me if I'm bias in that sense, but I get the idea that a lot of these skills are actually tested or assessed in situations where its more, where there is reality involved, your community, your guests arriving for practical's, where they are working with other people and not just in their save class environment, is that a true observation	
	G1.6	Ja, ja, some are obviously only in the class, they have the penalty of less marks, but you, no obviously, there are those where you do have other people involve, might be a bit bigger issue for its their friends who often is going to be the guests and you do not want to look bad in front of them	
	G1.4	Or their lecturers	laughing
Facilitator		So the repercussion are obvious	
		Yes, its reality And that is life	All nod heads and agree
Facilitator		So in the end, do you think that you have enough of those opportunities during your training for these skills to develop?	
	G1.3	I think so	Everybody sits still, nobody is nodding
	G1.3	They won't be perfect when they leave here but I think we put them on the way, you know	Some nod heads and agree
	G1.5	I think as we spoke through it now, mmm at the beginning I though oh my word how do we do these things, but now I am pretty happy with every one of those points. I think we do address all of them and I know, mmm, where they start with their food practical and they don't, you know, they are nervous and they don't know anything, mmmm, and by the end of the year that they have done food practical's, how confident they are, creative, and, mmm, amazing, they just óntpop' wat is die engels daarvoor, they just, they go into the entertainment class and you, you can't believe it is the same student	
	G1.3	There is really a big difference between the first year and the second and third year	
	G1.5	They really just do develop, I really can say that they develop	
	G1.4	Mmmm, I got to add to this, it is our product development course, mmmm, and that product development course it is risk taking the whole time, creativity, it is problem solving, all of this coming together, mmmm, to be able to have a product at the end of the semester	1 nods head and agree

Facilitator		Once again I am hearing practical's	
Group		Ja	All nod heads and agree
Facilitator		My question is now, these list of skills, how do you teach them these skills in your theory modules? Let me ask a question, how do you teach in your theory modules? What's the main format or strategy that you use in your theory modules	Silence
	G1.4	I use a lot of examples, and again perhaps it's something from practical, so yes I use a lot of examples	
Facilitator		Do you lecture and then you have discussions?	
	G1.4	Yes, I lecture, I, mmm, in this, mmm, ja, mmm, it's examples from life perhaps	
Facilitator		So you bring real life examples into your lecture	
	G1.4	Ja ja	
Facilitator		Okay you have a lot of presentations your students do	
	G1.2	I have various methods, I lecture, we have whole group discussion, we have small group discussion, they have presentations, so it's not just one method I use	
Facilitator		And you see these skills developing?	
	G1.2	Some of them you are not really saying you are doing this skills I think it just comes, like they don't think about it, like today this is what I am going to look at, or this is the skills, it just come like when you call a group discussion might know okay fine communication, but then something that is problem solving come in and so it's not like we going there in class thinking that this is now on my planning, this is now the skill that I want to do, it just comes, you just have in mind today I am doing group discussion and from there you know okay obviously we are going to communicate and then there will be some question reason, they need to answer, problem solving or other ... or other times you go in their problem solving and maybe someone didn't bring their books or they forgot something, so now you cannot just say go, like dismissing the class, you need to think of other things they would probably do, so you don't plan it, you can say today okay this is it, like I said possible skills we do, do them, but it is not something that is written down as it comes in a situation, which is again, it come naturally, I would say	
Facilitator		Any other strategy that you would like to share?	
	G1.5	I remember learning these things in theory in home economics Do you still teach these things	
	G1.4	Yes Yes	
	G1.5	But I don't think learning it in theory makes you a better communicator, learning what is communication and knowing the definition doesn't make you a better communicator. Learning how to make decisions doesn't make you a good decision maker	
	G1.1	But, learning how to manage your time... Yes	
	G1.4	How to handle risks...	
	G1.5	Yes, I think you need to do this practically in reality Definitely	
	G1.1	You can't learn on paper how to be a leader	
	G1.5	I think our course is a practical course Yes	
	G1.3	Because we separate our theory and our practical's, I think that it is what's so wonderful of our course, you do it in theory and then you do it in practical, and you can see what is happening, what is the theory	

	G1.1	In your food class, in the theory you might tell them how to manage your time to be able to do this within your timeframe, and then they come and apply it	
	G1.5	They apply it, yes	
Facilitator		So you teach them and they apply it	
Group		Yes	
Facilitator		Is there any last comments you would like to make?	
	G1.4	Ja, I want to say, a lot of this is really life, it is hot in here, we get a fan	
	G1.6	(ja, thank you)	
	G1.2	We don't plan for a fan, mmm It comes naturally	
	G1.4	What is that, problem solving, was that creativity was that	
	G1.2	Problem solving Plan seeking	All nod heads and agree
Facilitator		But that comes to another point so none of us assessed you because you did that, your students, they do these things, which is embedded, integrated, do you assess that, how do you assess that?	
	G1.6	Very often I think it is assessed on the end product, in food product development, if they haven't done it right from the beginning and gets successful product at the end, they wouldn't get the mark. When it fail, they have to start half way and repeat and get to a good result. And in the end you get, give a mark for the final result	
Facilitator		Which is the product?	
	G1.6	Yes, which is the product, with the design, fashion design garment as well, you get mark for the end product. You don't give necessarily, you don't have on your marking sheet necessarily, you do have parts of it, but you do have some main features that you look at and the evidence that you have of that. But you can't really give them a mark for the management that they have done, you give them a mark for the fact that the product is complete at time	1 and 4 nod heads and agree
	G1.3	Or the risks that they have taken	
	G1.6	ja	
	G1.6	Some of them you won't know about. They might have gotten a better mark if you knew about it but you don't knew about it, but you don't know, they solve the problem before	
	G1.3	Definitely, sometimes it's better not to know about it	laughing
	G1.6	Ja very often	
	G1.1	I think the 3D design that they do in interior as well, if in the end they were assessed, the work that they created, they actually get the marks for what you assessed	
Facilitator		So during the process they display these skills but you don't assess these skills per se, you assess the end product that is developing through these skills?	
	G1.5	I like the word evidence. I think it's the keyword here, its, mmm, even their report cards at the end of the year that would reflect on their time management because lots of them do not even have all the main courses here but in other departments, so to plan their time in order to be able to fit everything in, and I think that is part of their life's if you don't do that, your marks at the end of the day wont reflect that	
	G1.4	Mmmm wat is 'n getuigskrif, mmm, op die ou end as jy vir hierdie student 'n getuigskrif gee dan gaan jy goed sê soos, hierdie student kan vir haarself dink, mmm, en, that is also a little bit of assessment	
Facilitator		Yes acknowledgement of your skills	

		Ja, yes	All nod heads and agree
Facilitator		Anything else you would like to add? I am going to invite you, you've got the researcher's email address, if you can think of anything else that you would like to share with us, you can add to this information, you are more than welcome to send that. Facilitator gave thanks, and ended the focus group.	Silence

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Facilitator		How do you think these skills must be taught, what teaching environment must be created for the students and how must these skills be assessed? We can look at how you already do it in the curriculum or how would you perhaps like to do it. It is not a given of how it should be, rather what is your ideas regarding it. So let's first look at communication skills, to what extent do you already teach it, do you expose your students to it, or how do you think it can be done? Who wants to open the floor?	Silence
	G2.7	I think most of it is there with tasks and assignments, it is there with time, I mean everything must be presented at the end	
		How?	
	G2.7	In writing, if you give an assignment, I mean they must reflect everything in the end	
Facilitator		How?	
	G2.7	If you, in writing, if you give an assignment, I mean, they have to interpret the question, or I think if you give an assignments, uh, you write things which they must know what to do, there is sometimes quite a lack, they do not understand what you mean, I have experienced this a lot lately, I feel sometimes, I communicate in a way and they still do not understand what I do, but they do not come back to me and say that they do not understand	
Facilitator		Okay, in your ordinary assessment with the students, the assignments, there is already a certain degree of communication required, and you see it as two types, one is written communication because they need to present their work, but the second is also those "hidden communication" if they do not understand something, they do not necessarily come back to you	
	G2.7	Yes, what, what does the task entail, so sometimes, I think, the firstyears for instance, they get a written assignment and they should work together in a group and it is stipulated point by point what they must do, so some of them ask what they have to do, but some of them just disappear or just do nothing	
Facilitator		Do you find that students do not understand what they are reading?	
	G2.7	Yes, I think so, it could be	
Facilitator		Okay, but the question is, how do we help them with that, how do we train them to better their reading skills?	silence
Facilitator		Because it entails reading and understanding	
	G2.4	I was hoping AGLA do it, that they do it with the academic literacy and reading course and those types of things	Nod heads and agrees
		Yes	Participant s agree
	G2.4	We do not have time in the curriculum to spend time on that, we should concentrate on the content of the curriculum	
Facilitator		So those basic communication is AGLA's responsibility	

	G2.7	No, I don't think, I think it is good, you must arrive with certain skills. Stuff you learned at school. I mean if you did not learn to do your sentence construction, if you look at higher order, more at your honour students or post grads, you struggle with the way in which they write where they cannot even use normal formal writing, I mean, we can teach them to write scientifically however there are some things student don't have, common stuff, not sufficient skills in terms of writing and saying what they actually want to do, I mean, at the moment we struggle with the honour students, they were here yesterday, you give an assignment, and this is first year or honour students, you give an assignment, you give it point by point and you tell them that you accept them to do this and this, and then at a certain stage you realise nothing is happening, and then if you into the problem you realise they do not tell you that they do not understand what to do, then you think, okay, what can I do better to explain to them what they must do, but from their side, they do not come forward and tell you that they do not understand, they rather disappear, and then op you keep on trying to understand what is going on, you will realise but they struggle to understand, and the knowledge they do have, the struggle to transfer it to me so that I understand that they actually understand what they must do. Then when you mark the assignment you realise they do not have the necessary foundation regarding the topic you gave them, they did not gather enough information regarding the problem to solve the problem. This is relevant to different levels, I don't expect the same from first years as I do from honours	
Facilitator		It is an important point that you are making, how can we, in our training improve this communication. We have already said for the first years there is AGLA, which help with the basic skills, but to get from first year to honours level, what do we do in the consumer science training to improve communication?	
	G2.5	I see with the honours group, I also think it's a case of they do not understand terminology, uh, I gave an assignment for them where they have to present a lecture, and it was interesting to see how some of them interpreted the assignment, some immediately saw or knew they needed to do a PowerPoint presentation, others thought they should write a literature study and then do a presentation. So it seems to me they do not understand the terminology, we will have to look into the matter	Nod heads and agrees
Facilitator		The fact that you say they must do a presentation takes us do the next level of verbal communication, is this the only place where verbal communication takes place?	
	G2.3	I give class to honour student sand their first assignment, they get a case study end they have to do a presentation where they have to present the application of the case study. They have to submit a literature study where we look at writing skills and how they write and how they handle it, and handle it on two levels. It may be here were the confusion developed were they might have though they also have to do a literature study, since they must do it and give a PowerPoint presentation in the class. It feels as if the struggle present to the class and stand in front of the class speaking when they are not suppose toe, they cannot yet take ownership of the work they have to present to the class, or they struggle, or the do not completely understand	
Facilitator		It is honour students?	
	G2.3	It is honour students	agree
Facilitator		What can you do from the first year to teach them how to present in front of other, to improve that kind of communication	
	G2.4	I think because (name) spoke of the written communication, in my class, anyway, a lot of the time when they write something, and I realised well, you know the answer, but you do not write the answer, then you do not get your point, and I explain to them, because they complained afterwards and say but they did write something like that, but then I explain to them you did not answer the question, so if one strictly marks according to, did you answer the question or did you not give the answer, they learn to communicate better	Nod heads and agrees
Facilitator		Okay, so your assessment criteria can guide them to develop those skills	
	G2.4	Yes	agree
Facilitator		Again with written assignments	
	G2.4	Mmm, yes	
Facilitator		Verbal communication, how can you develop it from their first year?	

	G2.3	I think, I do not know how many opportunities they get to do it, but whether they may need to get more opportunities and if they might somewhere get formal training sessions, because at honours level we think they know what is more or less important to be in a PowerPoint, this is how you do it, but it is not the case	
Facilitator		Because they have not formally been taught regarding the above?	
	G2.3	I don't know, I don't think so	
	G2.7	I think, and I think also because of the size of the classes, there is, you always get your guys in groups, because you are forced to do group work, so then there is always passengers who rides along and who gets through the system with the help of their friends. And that's because there are assignments and they should do it and they are assessed, I just think you must emphasis it, especially with our new generation who grew up more electronically than we did, I mean I think they can beat us when it comes to technology, but the fact is, even if you are good with technology, you still need to know how to transfer it to other people and that other people understand you, the emphasis must be more on being able to do structured reports and good practical examples, but the problem is in large classes	
	G2.6	Yes and time	Everybody agrees
	G2.7	And it makes your assessment, you come, and on the other hand assessment tells you that you must not over assess, because I mean when is something over assessed, but if you cannot do something, you should do it until you can do it, but I mean we don't have time to do things over and over to ensure that everyone gets on that level, so you do it in a group, but there are those passengers who cannot do it, and in the end they get a good mark, because the group has helped them, so it's good for weaker students, but the help they get actually do not help them at all	Nod heads and agrees
Facilitator		So if I heard right, the recommendation is that there is actually very specific training, not necessarily part of the curriculum, maybe something additional, maybe an outside person to do the verbal communication. Written communication can be done by assignments, but large classes make it difficult to really pay attention to it	
	G2.3	Yes, and I try something, uh, and you cannot assess it or anything, but I tell them if you send me an email, I want a topic, you must tell me, hello it's me, and this is the subject and then you have to explain to me in full sentences, if you use SMS language, I cannot understand what you are saying, and then, and I cannot answer, so you try... because they send e-mails without a subject, without sense, and it is almost a kind of a professionalism that you want to teach them and make them alert of it, because I do not know if they just do not know	
	G2.7	But I feel it's not only our job, it is the same with telephone etiquette, there are so many things that went missing, I just feel that a student who arrives here must already have certain skills, it's not just our job to teach what the home and school did not do in 12 years, now it's our job to do it, and I often feel we now get the job to do and we must now suddenly fill all the holes caused by the school system, which let the guys through, now we need to quickly help them get on their feet and that is why we have so much trouble and I feel like the first years are struggling increasingly to cope almost with the leap from school to university	
Facilitator		Okay, but I think it's exactly the purpose of this research, we know they come with a gap in their first year, so, but the employer requires us to deliver a product with certain skills, so in our training, how are we going to address this	
	G2.2	In the past we had a course in the first year which I presented one year on communication skills, we taught them how to do a PowerPoint, how to be professional and it was just during one year but we had to remove it because there was not place in the curriculum for such a luxury, but I heard later that postgraduate students, M students who presented their papers said they went back to what they have learned during that module and applied it, and it helped them a lot to know for example. perhaps how big or how full should a slide be, they can make a beautiful slide, but it may not be readable, or what is it to really be professional when you make such a presentation.	Nod heads and agrees
Facilitator		So it was valuable to really focus on it	
	G2.2	Yes,yes	

	G2.7	I think specifically for consumer sciences which is there, you know, for training and other stuff	
		yes	All agree
Facilitator		And to communicate with your consumers	
		yes	
		During our training years ago, do you remember, there was a module regarding counselling	
		yes	agree
Facilitator		Okay let's go on, is there anybody else who wants to say something about communication skills?	
	G2.4	Yes, I think just the way we present our classes may also promote communication skills, because I ask a lot of questions and I encourage the students talk about things they have at home, problems they experience in their everyday life, with textiles specifically, to talk about it, and when they speak, I correct them and help them to use the correct terms, I correct them, I say, you are talking about the absorption of resilience, so to encourage them to speak in class also and encourage them to have conversations with each other, but especially there where everyone can hear, but unfortunately its usually two or three of the 60 who participates	
		yes	Others agree
Facilitator		But you do not assess it, it is informal communication?	
		yes	agree
	G2.5	I would like to ad, you should not think you must always use technology, a phone or a computer, you should also develop those communication skills where you don't use any technology	
		Yes	Others agree
Facilitator		How? Give some ideas	
	G2.5	It is like NAME said, one should force them to talk to each other	laughing
	G2.6	I also think the students are starting to communicate to much on cell phones with each other, they lose the really just sit down and talk with someone else, make eye contact, I came across students several times were 60 students are sitting and none of them are talking with each other, you know they are all just on their phones, which really shows that people are losing the ability to really talk to each other. I wonder also if you look at these types of skills of that modules, one can see what is important and then divide it into components and put some of that components in the firstyear module, and say okay, for this subject in the first year we are going to do a PowerPoint presentation, and then use 10min of the time and say okay, this is what a PowerPoint must look like, the PowerPoint must look like this and then evaluate it very critically, and then in a next module, they must do something new, but they must remember what they did the last time, so then by the time they get to honours they know how a PowerPoint must look because they were evaluated on it throughout the 3 years, or how should I dress when I give a PowerPoint presentation. In my third year module, we make it playful and we say to them, they each have a business, and they have to make a presentation to the client, and many times they will make quite an effort they would dress more or less the same with name tags, so it's half-playful, but I think it expose them to behave professional, they will introduce themselves professionally, while a other group would not care to not much, but then that group will lose marks because they do not look professional, because in that module I tried to be very strict with them to be professional, because I tell them at the end of the day you will work with clients so you should be able to talk properly to them, your documents should look decent, therefor I don't want something with fake flowers and stuff	All agree Nod heads and agrees
Facilitator		Okay, so is there a way where you can then assess it, it is integrated and it is assessed	
	G2.6	Yes	
	G2.2	I want to add to NAMES regarding the presentations, the writing skills I present to them in the honours year, it is too late and I think we all feel that it is an impossible task for them to learn to write after a block session, I think we can apply the same principle to teach them the principles little by little from the first year and make sure everyone evaluate strictly or rigorous assessment so that they	

		already know how to write an introduction or how to write a sentence, or a paragraph, that they do not learn about it the first time in their honours year, for the first time that they have to write a test, they forget the most of the things they learned in honours, and then they are not ready when they start to work	Nod heads and agrees
Facilitator		Well, once again integrated, and between the modules communication must take place to ensure it is assessed in the same way	
		Yes	Agree
Facilitator		Okay, let's get on with English language skills, I think it may be especially problematic at our university. How can students' English proficiency be developed, are you doing this? How can it be assessed	silence
	G2.4	I would hope because all textbooks is English, that it at least contributes to their English comprehension, but it seems to me that they mostly use Afrikaans notes from previous students instead of the textbooks	
Facilitator		Is an English textbook enough?	
	G2.4	No-no, it is not enough, but it is a start	
Facilitator		So how can you propose to develop such an English language skills?	
	G2.7	I think to do some of the assignments in English. Not the papers in English, because I feel, if you really have to think, it is easier to do it in the langue you study in , but to say okay at least one assignment should be English	
Facilitator		It is written skills, what about verbal communication?	
	G2.7	Yes, but also presentations	
	G2.3	How do you implement it if you have English and Afrikaans students in your class and the Afrikaans students suddenly have to do an English assignment but the English students do not have to do a task in Afrikaans?	
	G2.7	You know, you will always have that problem, I just think, in terms of to say to them, you have the advantage to get your classes in Afrikaans, but the fact is, in the industry, English language skills is important, so it is there to help you, a lot of my slides is only English, and I must say, I've never had anyone complain, bilingualism really takes a long time, so at the moment when it becomes a debate feel I, just keep it English from the beginning, but we also have responsibility to at least advance our Afrikaans too, but in such a class you can say, listen it's for your own good and in your own interest to actually do it in English	Others agree
	G2.5	I think for example the food that has a practical component, maybe for the first hour of the practical, forcing them to only speak English with each other, it may help	
Facilitator		In other words you create opportunities where they have to talk, but how do you assess it?	silence
Facilitator		Do you think it is necessary to assess it?	
	G2.7	You know I feel that English, Excuse me I mustn't talk so much, if we really have a look at it, we come from a deal that if you don't speak English 100% properly, you felt inferior about it, I think if you look you should be professional, but if you can write reasonably well, then its fine, even if your pronunciation is not 100% right, if we look within our diverse population, the English is sometimes not 100% correct, but does it really matter ? I just think your written language is very important, even if you write in a popular thing is it still a higher level than you will speak normally, it is the same, your written language is more formal than your spoken language, no matter where you are, and I feel that if you have that written basis that you know you can do on a professional level, and then just a mind-set of I'm a professional then you will, I believe, being able to communicate decently	
	G2.6	I want to add to NAME, I think it is firstly important to get students to be comfortable talking, because if you are forced and all of a sudden you must speak English, you forget all the words, but when get comfortable over time you learn new words, new terminology that you can use in presentations, then it's not an issue for you to use it because you know what the word means and you are comfortable.	Nod heads and agrees
Facilitator		It then comes back to the question, where in the curriculum can we provide the opportunity for students to become comfortable with English	

	G2.4	Something I saw which helped with last year's group was the fact that there was an English student in the class, and to not put all the English students in one group, because then all the other students talk English because they can speak better English than the English students can understand Afrikaans, and it helps a lot that they communicate on an informal level where they do not fear that the whole class will hear them, they speak English because of that person so it's not for them, they are not on the spot, it's about the other person	Nod heads and agrees
	G2.6	To accommodate them	
	G2.4	Yes, to accommodate	
	G2.6	Yes it is really nice because in that way they help each other but actually they help themselves	All agree
Facilitator		Good, something else regarding English language skills?	silence
		Right, let's get to the ICT, the use of computer software, does your students get the opportunity for it, do they use it, do you assess it, what ideas do you have?	
	G2.6	Yes they do, my third year interior design students have the opportunity to a use certain computer programme, it is design oriented, and yes it is only about 6 weeks they spend using the programme, and then they are assessed by a test, including all the components of the programme that make sure that they, maybe not fully mastered the programme, but they can use the basic components of the programme. It is a programme they often use in the industry so it helped them to get a little more comfortable with it. I tell them that if they really have to work with it one day, they should go for formal education where they can maybe get a diploma or certificate that says they did it because there they would get more depth. But I also noticed, remember we are a combined department, the guys who are more interested in interior design, learn much faster and much easier than the other students, the others do not really want to and they struggle, and actually, it's not so easy, if you read and follow the instructions you will be able to do it,	
Facilitator		Foods, is there any computer programmes?	
	G2.5	No, not at the moment	
	G2.7	Some, they do some body thing, a specific thing they do for nutrition	
	G2.5	Yes, it is for nutrition	
	G2.7	Yes, a little, but the others is Excel, and in general people struggle with it, but the plain Word, that they do, assignments	
Facilitator		Do you expect your students to submit assignments electronically?	
	G2.7	Yes	All agree
	G2.4	Yes, not necessarily electronically, but at least typed	
	G2.7	But at the moment they can submit it on e-Fundi	
	G2.4	Or yes	
	G2.3	With the first years, they always made a storybook that they had to submit a hardcopy, this year they must make a e-book or a website to bring in the technology, but we do not know how it went yet ... we will know after the weekend, they were pretty open to it and I did not go through a lot of trouble to tell them how to search for free e-books, I only gave them a website programme's name they could google, no one asked questions, or how to do it, they just went on on their own, so we will see what it looks like	laughing
Facilitator		And how are you going to assess it?	
	G2.3	They submit it in drop box in eFundi and then I physically mark it, or because they are not finished, they can give me the link then I go to the website, or they can download it as a pdf, if it is in an e- book and submit it, and I mark it as a hard copy. I did it to save some print costs, the printing in colour and those type of things costs a lot of money	
Facilitator		Okay, so you do not necessarily assess the lack of the use of technology, but the content?	
	G2.3	Yes, it's really mostly about the content, it is not about how they have used the technology, but they had to have mastered the technology to be able to hand in a successful product	

Facilitator		Okay it sounds good. Interpersonal skills, like interacting with others, to work with peers, even to collaborate with multiple people in hierarchy, is there an opportunity for your students to develop these skills?	silence
	G2.6	Well I think they do a lot of group work	
		Yes	All agree
	G2.4	Discussions in class, quickly talk about this and then report back, so they have such quick brief discussion	Others agree
Facilitator		Good	
	G2.6	I think in terms of lecturers, they always have a designated group member who speak or represent the group, probably the one who feels most comfortable to talk or something, because many times if they are in a group, the one will carry the entire conversation, the others are just there for social support	laughs
	G2.7	Yes, I know, I do not think they interpersonal skills are very good, I notice with instructions I give in group work, I have done project-based learning for probably about 3 years where I give the stuff, they struggle to take part or divide the work, they give isolated work, everybody want to give their own work and just throw it together, there is no exchange of knowledge where they sat down, I tried to force them but they did not	
Facilitator		You see, that is the difference between group work and teamwork	
	G2.7	Yes they really struggle, and I mean this is the first years, the 3rd years, and the honours, the struggle to know okay, we have these components, we have this information but now we must have an end product on the table which everybody contributed to, everybody thoroughly looked at it, they struggle with it, I do not know how we are going to get them to just take 3 different things and throw it together, honours this year was part of the first year group who did project-based stuff in my class, and still they take three different things, and 3 different sources and just through it together ...	
Facilitator		Now tell me, with your group work, do they choose their own groups or do you divide them in groups?	
		Both	All agree
		What is the motivation for it?	
	G2.7	I prefer that they choose in terms of geographical area or in terms of someone who is in the same hostel, because if I tell them to do something, there are always stories of someone who could not find the bus, our students are quite mobile, but in the past where I was, you really sit with people in townships, so it is easier for me to say to them to get their own groups, which they know it is someone who is in the same hostel. As for the first years I say, listen, look for someone in the same study field, or may both be dietetics or nutrition, it makes no difference, but make sure you are in the same hostel because then you can work in the evening or know that you are fairly easy to get together	
	G2.4	I let them do group assignments and then I force them to do it in class and then I give them a few periods of say a week's time and then I chose the groups, because then they are together in class and everyone should be in class, then I say beforehand what a group assignment looks like, I say you go through the guidelines that I give you and hand it in at the end of the period, so that I could then look at it, but I'll never really look after, but I can see how much they did in class and then next time they can go further and work on it in class. I'm in the class and I can see if they do not interact with each other, and then I can just ask what they are busy with, or what they are doing, I can also tell them this is not how you must do it, everyone must look at the one point and everyone must discuss it together and decide which is the best solution for it. So doing it in class, but then you should have enough time, because it takes time	Nod heads and agrees
	G2.7	It takes very long yes, that is the problem	
Facilitator		So if you have to give more ideas of how their interpersonal skills can be developed further in the curriculum, what can you do?	

	G2.4	In my production line practical's groups have practical on different days and then there are two team managers, production line managers who I appoint, however they themselves vote for or select them and then that person is responsible for the functioning of the group and I tell them they cannot sit behind a machine, they must make sure the production flows, and I think it helps that I am not in class the whole time, I am in and out, so sometimes there is a fight, someone who has done something wrong, or he must fix something and it's not his fault, but then they sort it out together without me being present, then afterwards they tell me there was a problem but they already sorted it out. So I think in that sense that I am not constantly supervising, because I want them on their own to go on, on their own, at the beginning they struggled, but later it gets better, and I think it helps that you give them that confidence to communicate with each other without someone constantly supervising them	
facilitator		Yes, it is a very good example. So you do not necessarily assess the interpersonal skills?	
	G2.4	Sometimes peer assessment, I tell them, I give them a list of everybody and everyone has to give a mark for everyone's contribution to the group. Sometimes I just ask the production manager, but other times when I realised there was struggles amongst the group I will give everybody the opportunity to give a mark. Sometimes everyone gives full marks for everybody but one soon realise that something is going on if there was one person getting 4 out of 5 and the others all have 5 out of 5.	
Facilitator		Then you read between the lines	
		Yes, then you read between the lines	
Facilitator		Do you ever take your student to do projects outside?	
		Only NAME does	
Facilitator		Okay, this brings us to teamwork skills, team-based competencies, it is now as we have said, not just groups, I always explain to the guys, toddlers can also work in a group, everyone can sit at the same table and all pursuing his own picture, they use the same crayons but it is his picture, but teamwork is where there is one picture and each one brings its own characteristics together to create a beautiful picture, so your students' teamwork skills, do they get the opportunity to work as a team, and if not what do you suggest can be done to promote it and to assess it?	laughing
	G2.6	I think, I make sure use of it to some extent with that they should be divided into businesses, and every time they get a point for professionalism and for the assignment as a whole so, and then afterwards they evaluate each other to say how everything worked together, was everyone always on time, did everybody contribute equally and such things, and then, so they provide their assignments as a business, which really serves as a team. I Think ...	
Facilitator		Okay, what year group, 3rd years?	
	G2.6	Third years	
Facilitator		Foods?	
	G2.5	In food practically they should of course work closely to prepare a dish, but they also hand in a general assignment together, I do not think it will be assessed so much in terms of a team, but it's handed in as a team	
Facilitator		Do you ever give your students an opportunity where they must, like a project, start something and work on it through the semester and hand it in at the end, but each one had a specific role to play?	silence
	G2.3	My website is actually like that, the idea is that they are 3 or 4 in a group, 1 is the technician and he has to figure out which programme to use, the technical things around it and to implement it and the other two had to, the one was responsible for visual examples and the other was responsible for the written examples, if they had a 4th person, that person is actually responsible for the whole picture at the end, and if they do it like that, I cannot say at this moment, but it was the idea behind the assignment	
Facilitator		Okay, good	
Facilitator	G2.4	Smaller assignments, I have an assignment that I do once in a semester in a module, I give them a task and them and I say, okay, one person in the group has to report back, one person must write down, the other two must search for the information, but it is a single assignment, but they are not assessed for their roles, they will be assessed for the answer they give	Nod heads and agrees
Facilitator		So you think there's a way that you can analyze this? Teamwork in itself?	silence

	G2.4	But I think if they have a successful end product it is to some extent an evaluation of teamwork, if it is a task that they could not do alone, such as the production line, for example, yes the production line I think is definitely a teamwork evaluation	Nod heads and agrees
	G2.7	Product development also, I think there is no way that one guy can do it, but I initially said there were roles but it did not work and I did not evaluate then on everyone's role, but in the end it is about the product put on the table, if there is struggles between students, they must sort it out, as I tell them, every year they do it in the 3rd year and honours year, and it is much more comprehensive in the honours, but in the end it is how it will work in the industry, you have to find a way to get through it, because in the end should you have to do this project presentation, and it must be for a company or whoever, so they are evaluated in the end the project, the result, and they get marks for the components thereof, but it's not for individual roles where you say to somebody, okay, you were the manager, the roles differ the whole time	
Facilitator		So it's not a hard skill, to say how this person showed that properties	
Facilitator		Good, with teamwork comes leadership skills, your students work in groups, in teams, businesses and so on, but is there opportunity for them to develop their leadership skills and, if so, how do you assess it? Or can you think of other ideas to develop leadership?	silence
	G2.6	No, I actually don't do it, not where one student...	
	G2.4	Assessment of the leadership, there is an opportunity to take the lead in a group like a production line manager for instance, but I think even something like Nutricamus to stand for the ASV, I think it is still part	Nod heads and agrees
		Yes, yes	Other agree
	G2.4	outside curricula	
Facilitator		It is not part of you formal curriculum?	
	G2.4	no	
Facilitator		It happens in an informal manner with group work and somebody takes the lead	
	G2.7	I think personality plays a big role because you always get the followers that you can see, usually the groups where there are problems is usually the group with more than one leader and over time they sort each other out, but, if you have followers, it's easy, there is one that is saying and the others do, and he usually they are sorted, but it does not always work that way, most struggles come in group work with members with different strong personalities, but, leadership is not necessarily something you cannot learn, you can become an expert in your field, then you get more familiar with it, so you will in certain situations give direction and take the lead but I think if you do not have strong leadership skills, I do not know if we could ever make someone a leader	Some nod heads and agrees
	G2.6	But now, I wonder, it is not in our curriculum, but can we not encourage them to participate in HK, UK, that kind of outside stuff, because it's another type places where they learn leadership qualities more than we can teach them, even though it is not within	
	G2.4	A leader is not necessarily a leader in general, but a leader in various fields such as NAME said, if you are knowledgeable in your area then you are also a leader	agrees
	G2.7	Then you will, in a work situation, if you properly, you know, educated, and you have confidence in your module and you have confidence, then you will, where necessary, you will come forward I think	
	G2.5	One must remember, we don't want to develop only one person's leadership skills in the group, we want to develop the whole groups skills, so perhaps you can with the assignment, ask, how did you plan, how did you organise, raise some leadership qualities, and ask, how did you think you are going to do it or approach it	
Facilitator		So you assign specific criteria to it that you can assess then	
	G2.5	Yes, that is correct	
	G2.7	But, at the end of each assignment, they need to complete and hand in a separate form, explaining his contribution of each aspect, or how he did it, or how he found it, did the group accept it or whatever, I do not use it for marks or anything, but, really just to see who works and who not work	

Facilitator		For some reflection	
		Mmmm	Agree
	G2.4	I think if a student must complete something like that, then it forces them to think about it, and say but listen, I have to do my part, take responsibility	
	G2.7	And to a certain extent some communication, they are really struggling to put their thought in written language	
Facilitator		Okay, problem solving skills, to what extent do you expose your students to problems they have to solve, and is there opportunity where it can develop	
	G2.6	For example case studies and things like that?	
Facilitator		You tell me	
	G2.6	Well yes, I like to make use of case studies in the interior modules because it is nice to give for example a type of family composition, and a type of floor plan, and a problem that is applicable to the type of work we are doing, so um, in that respect I make quite a lot use of that type of problem-solving skills, and .. .	
Facilitator		So you link it with you module context?	
		Yes	
		The assignment they get requires problem solving skills	
		Yes	All Agree
	G2.4	My assessments, especially in the 3rd year as I try to bring in the higher order skills in the assessment, are problems that I give them, a carpet which rot or faded, what are the causes, and they have to provide a justification for possible solutions	
	G2.6	One tries to give real-life scenarios that they may possibly encounter in real life	
	G2.4	Yes Yes	Others agree
Facilitator		Do they get the opportunity to solve everyday problems in their curriculum? It is now subject specific problems, but I'm asking following Kovies, food practical's, food ingredients which they thought will be there is not there	
	G2.7	Yes indeed, yesterday the honours discovered that somehow the order list in class and the one that they have is not the same	laughing
	G2.5	If the ingredients is not there, it is not their problem	laughing
Facilitator		Who solves the problem for them?	
	G2.4	I think even with their personal life, my lift wanted to leave early, so I could not come to class, or something of that nature, it is a big thing, they struggle which basic life skills ... mmm	
	G2.6	But I think it depends from person to person	
		Yes, yes	All agree
	G2.6	Other students will do whatever it takes, although it means they are 5 minutes late, even if they ran into that class, and others will just put their hands in the air and say, okay sorry I overslept	
	G2.4	I cannot come to class today because I don't have transport...	
Facilitator		Okay so I conclude that have problem solving skills taking place that is very subject specific, but not really general skills	
	G2.5	Yes I think because the leadership skills is so under developed, it contributes to ineffective problem-solving of everyday problems	
Facilitator		But can you not think of an example what you can do in the curriculum to improve it	Long silence
	G2.6	If there is no ingredients, they can get in the car and get it	laughing
	G2.7	In some extent, in the 3rd year if their order lists is not on time and they did not give them in, then we just say tough, you have to ensure that the stuff is there and you do the practical, so if your ingredients is not there, go buy it yourself and bring it here, we're not going to give it to you, but you have to do it, we only want the end product, and it is the same with other stuff, being late for	

		class don't worry them, but for a test, there are places where you have to deliver a result, so you must make a plan to get something there	
	G2.4	At a point when I realised the tardiness is getting too much, I shut my door for the first 10min of the class, and if you are not inside the class before I lock the door, then you have to wait outside and then I usually let them write an unscheduled test, or let everybody get full marks or something like that when I realise there is only a small number of students in the class, or if an assignment is late then I say okay, you can hand it in but I deduct 10% for each day, so you will be penalised if you do not reach the date, something like that	
	G2.3	One tries to ad different stuff but it is difficult to on top of subject-specific stuff, also teach general life skills, the honours had their graduation on the day that I teach, we cannot miss a class, but they threw their hands in the air and just said they cannot be there, then I just said well we must have the class because there are people who has to present, and they had to choose a time so they had to talk to each other because most of them are busy somewhere helping with practical's or assisting, so it was really difficult to get a time that suits everyone's, but they had to sort it out among themselves and then come to me and make sure it suits me as well, so I think it is also in some degree, they can just say, no sorry, we are graduation, so what now, so they have to take responsibility for it so it is also a way	
Facilitator		Okay, so a gather that general problem solving skills is something which takes place out of the curriculum in everyday situations	
	G2.3	Yes, you cannot really assess it, well not at the moment.	
	G2.4	But, they are penalises if they miss class, they miss the information	
	G2.6	Or the get 0	
	G2.4	Or the get 0	agree
Facilitator		Okay, then adaptability skills, it brings us back to that practical's, the ingredients are not there, now what, is there any opportunities where students are actually being placed in situations where it is different to what they thought it would be and they just have to adapt, do you create such situations for them	Long silence
	G2.2	I think the whole honours experience is an adjustment to them, it is a totally different structure than their undergrad	laughing
	G2.7	I think the whole university is an adjustment to them	
	G2.4	And I think to a certain extent my practical also with the production line, suddenly they have to work on new machines and on a completely different way, they are used to each person sitting at his own machine and do his own thing and do not care about the rest, here the whole practical is turned around, it is a different setting, it catches them of guard and they are frightened to hear that everybody is going to get the same mark, they do not like it, but in the end it works	
Facilitator		So they must adjust	
	G2.4	Just to do something in a different manner as they are used to	
Facilitator		Okay, can you think of other ideas which can be done in class to develop their adaptability skills	
	G2.4	To switch teaching methods, alternating methods, presentations	
	G2.7	But I think to some extent it is done, when you look at first year practical's, then 2nd year practical and then especially 3rd year, the whole manner, many of our subjects in the 3rd year is more problem resolution such as the production line or product development, it is much more stuff they have to take on almost as projects, and each one has a role, and they have to rely much more on their own inputs and if they do not do it then there is not a product on the table, you know, they should actually think creatively, because you send them to a place and say okay now identify something and now you have to make something. I think over the three years there are several opportunities, it continues to change, and I also think different lecturers have different ways of teaching, and different parts of the work, because we have such diverse subjects, you cannot present everything in the same way so the entire curriculum is like that and you cannot say yes, but we like it this way or this way, some like it and some do not like it	
Facilitator		But is comes down to, it is not assessed, it is totally integrated	

		Yes	agree
	G2.3	Yes but I do think that all the group work that we give, which should really be teamwork, they must be adaptable, you cannot work in a group or a team if you cannot adapt to the individual next to you, and we have a lot of group work, teamwork, whatever you may call it, and in the end to hand in a sensible product which is not 'here is my part, here is my sources' ... they had to adapt, and if it is successful then you assess them on that, there were a form of adaptability there, you know, my time does not fit you, no my time doesn't suit you, let's meet at your house, I do not like your house, anything that fits	Nod heads and agrees
		Yes	All agree
	G2.4	I think the mere change of a school environment to university environment and the way work is done, we do not follow the textbook from pages 1, it's a big adjustment they struggle with because they do not always understand	
Facilitator		So the study material already	
		Yes	All agree
Facilitator		And the manner of teaching	
	G2.4	Yes, the manner of teaching	
Facilitator		And cooperation	All agrees
		Yes	All agrees
	G2.3	And quantity	agrees
	G2.6	And English textbooks	agrees
	G2.6	And time constraints	agrees
	G2.4	And working independently	agrees
Facilitator		So I gather that you consider adaptability actually as part of being a student, it is not something that should be in the curriculum	
	G2.4	Yes, totally part of being a student	
	G2.7	Part of life	
	G2.3	Yes, I think day are confronted with that each day	
	G2.7	I think the guys who are really struggling are the ones that somewhere leave early or just say, go, because if you cannot adapt, then you will not make it	
Facilitator		Okay, but the question comes back to the whole purpose of this research project, if you students walk out of here, do they have the ability to adapt to what working conditions they may work in	Long silence
	G2.7	I think it depends on individuals, you always get these students, and at the same time you get these strong students, they go on and they are the ones who have the passion and initiative and they go and they do, then you always have this passive students and I think this is often where the problems come in and why we sometimes in the honours year find someone who may not be quite what we thought they were going to be because the group performed well, and he faded, and the group carried him and now in the honours programme the problems begin when he has to apply it self	All agree
Facilitator		Okay, taking risks, is there opportunities for your students to take chances, to take risks, to make a conscious decision to do something that may be a risk	
	G2.4	I think product development	
	G2.7	Yes, they often take risks because, we don't always limit them in terms of, okay, sometime we say if the ingredients are too expensive, some of the students can put strange things together which works in the end, but it's not really a risk, you know they do not really carry the financial risk, so it is a risk of something that might not work, but also, they are not afraid of putting stuff together	
	G2.1	adventurous	

	G2.7	Yes they are adventurous	
Facilitator		And creative	All agree
	G2.7	Yes, I think the risk comes in, in terms of the financial stuff, because that is usually where I have to stop them and say you know, there is no way it can work, it is simply too expensive, ... perhaps one should tell them they have to pay for the products, I think maybe do it in the same way as the engineers, tell them you have a budget, you should use it and stick to it and in the end we are looking for a product	
	G2.5	I don't think in terms of a specific module, but I think we motivate them to get internships or work during the holidays and exposing themselves and getting work experience, I think it is a type of motivation, yes, to be exposed to a risk	
Facilitator		Yes, and the hard life outside	
		Yes, yes	agree
Facilitator		But again it is not compulsory for them ne	
		No, no	agree
Facilitator		They are encouraged	
		Yes encouraged	All agree
Facilitator		And they are not being assessed?	
		No, no	
Facilitator		But do you think there is an opportunity for something like that within a curriculum, from their first year, where they actually come in situations which involves risks are, where an action can have a result that was unforeseen?	
	G2.7	Micro practical's	laughing
	G2.6	The only thing I can think of is with tests, an additional test, which I tell them, remember, the two best marks count, so if your marks is worse, then the chances are now good that you... then it is a risk, even I think by writing second opportunities	
	G2.5	That's what I wanted to say, writing a second opportunity	
Facilitator		But again, when it comes to being a student, it is not necessarily subject specific	
	G2.6	No, it is not subject specific. Yes, and I think the case studies, even thou we give a budget, they have a project with a certain budget but there is not really a risk for them, because it is not real money	
	G2.7	They do not have the responsibility	
	G2.6	We once had a place in town where they had to look at student housing and propose a makeover and they had to think and give practical examples, and the real costs involve, and understand it might have been more of a risk presenting the examples and options for a client, because their names were also on the assignment, so they felt themselves now being exposed to really clients in the industry.	
	G2.5	I also think risks increase when you give them one or more options in a test or exam, you know, it is the same question, you can either answer question one or question two	
	G2.6	Yes NAME used to do it, it was long questions and you had to decide carefully	laughing
Facilitator		NAME I want to go back where you said you took your students out to do a makeover of a house in the community, is there more projects like this you expose your students to?	
	G2.7	Product development, usually if someone, the current one they now do is for a guy in the industry, he wants to develop products and is looking for some additional options and in the end they must make him a presentation	
	G2.6	And what about that extrusion programme you do with the engineers, it is also a type of risk if the product flop	
	G2.7	Yes it is a risk, but not really on them, they don't really have the entire responsibility of it, I think, because we do not always know how these things work, it is a risk, but this is how it works in the industry as well, one day when we got there they wasn't able to find	

		an item, but the extrusion had to go, so okay, now, plan b, but I think it is not on them because I am part of the project, as I mean, the risk does not lie with them, it is actually on me	
	G2.6	But did you not tell them that if it flops, it is a big risk for you?	
	G2.7	No, no, you do it, but it is more a practical industry for reality, it is a risk but the industry is a risk	
Facilitator		Okay, so when we look at creativity, do your students get the opportunity to develop their creativity skills	
	G2.6	jip	laughing
	G2.7	It is almost all they do	
Facilitator		Tell me more	
	G2.6	I think they have quite enough time in different fields to be pretty creative, and a lot of students will say that they come here so that they can be a little more creative. Well that is what I have heard here and there. Other subjects were boring for them, they want to be a little more creative	
Facilitator		How do you assess it?	
	G2.6	It is always in the evaluation criteria	
	G2.4	5 marks for an assignment goes for creativity	
	G2.6	My biggest problem is to turn this free spirited creativity in a professional creativity. Then I tell them, I don't want a concept board with dried roses and such ornaments, because it will not work in a professional environment, that kind of you know sequins and things, because you get a few of those creative ideas, and then to put those creative thinking in a professional form. So I will then evaluated strictly in terms of appearance, and also give them guidelines of what they should keep in mind and so, so they can be creative, but within limits.	laughing
	G2.3	Yes I think it's quite important to teach them realistic creativity, creativity in itself is not really that difficult, but to execute it and the professional execution thereof, those two worlds lie very far apart. I think it's really a skill that they have to learn to be creative realistic	
	G2.7	But I think we do it, because the moment you bring the budget into it, whether it is your budget or the production budget, so you, you know they have to evaluate the product and the ingredients and where they get the ingredients from, so they don't always realise, then I say, listen there is no way this thing can work, I mean if you are going to use chocolate ...	
	G2.6	But I also think for example in NAME practical's, if there is some of the students who does creative things and sometime it does not work, there ideas which they had.	agrees
	G2.1	Yes, for example the denim bags they have to make and do something with, they do not always come with something that is workable	
	G2.4	Or skirt they need to work on the patterns, make the patterns	
	G2.7	I think thinks sometimes with the mistakes and somebody has to make a skirt, it links to risks	
Facilitator		Like you said, they wanted to do something, and it does not work, it is a risk	
	G2.1	Yes, and they should plan, for some of the decoration, decorations to put on a bag must be put on before you sew the edges, and then they suddenly come up with a finished bag, and then they actually wanted to do it , so they have to do some planning	
Facilitator		It has to do with the next one regarding timing and management	
	G2.4	I just think we should be careful not only to think about creativity as something nice to make and create, because in my subject it's a lot about creative problem solving as well, I tell them my memo is not a fixed memo of this is right and this is wrong, both answers may be right but you must be able to motivate the one you have chosen then I tell them and I practice it in the class, telling them to vote and one group must say why they choose an answer and motivate it and the another group must explain and then I said, see both is right, but it depends on how you motivate it	All agree agree

Facilitator		This is an important point that you are making, because if you think about the industry in which your students will work, there is not going to be expected of him to be creatively creative with a product that they should design, but it will be expected of him to make creative decisions about processes	Nod heads and agrees
	G2.5	Yes	agree
Facilitator		And that is the question, is their place in the curriculum to learn something like that?	
	G2.7	Yes it is, you know if you suddenly run out of ingredients, now what, your proses must go on, and you cannot force anything in, and it has an effect on the rest of the stuff as well	
	G2.4	Yes, my students, they said it was the machine's fault that did not make the hem right, it did not work, so they asked if they can do the hem in a different way, when I said to them, as long as your product look professional in the end, so there is an opportunity for it, it depends on the lecturer to not be too rigid, to allow them and say, good, bring the solution, and not say this is how to do it and it's the only way	Laughs Nod heads and agrees
Facilitator		So you must create space for it	
		Yes, yes for sure	agree
Facilitator		How do you assess it?	
	G2.7	You look at the final product, and you know how you, I mean really, there is not necessarily a section that says, there was creative thinking, but in the end you evaluate the product in the end, and then you as lecturer must say, okay, I mean, it's almost half unconsciously you then say, okay they had initiative, okay we give them a point for it, although that's not what I wanted it...	
Facilitator		But it worked	
	G2.7	Yes, there was no point for creativity or anything, because, that creativity to solve the problem is actually something else, but in the end you evaluate many things as you evaluate the end product at the end	
	G2.1	And the creativity and adaptability are almost joined together	
		Yes, yes	All agree
	G2.7	Yes and I mean you do not have specific section	
	G2.1	To be adaptable you must be creative	
	G2.7	Yes, and in the end you have to solve the problem, you have to deliver a product at the end, and how did you get to that	
Facilitator		So the end product is assessed and in implies that all these different processes meanwhile took place	
		Yes	Nod heads and agrees
	G2.7	Yes, some of it to a greater or lesser extent	
	G2.6	I agree with NAME that in a case where creativity is in terms of a question, lecturers must give the memo more freedom to fluctuate, for I have moderated where they were so strict according to those things and I disagree, because if you read carefully, the student may have said something else, but it is actually right in terms of the question asked, but it is not on the memo, so I think we also have to give students more space in that respect	Nod heads and agrees
Facilitator		Because people don't live according to a memo	
		No	All agree
	G2.7	But it works like that, and I NAME was my moderator and I must say she really gave me a useful way to construct a memo's, to say, okay, you give so many points for facts but then, in your memo you build stuff in like creativity, that is, if a student has answered the question and came up with something that actually, you did not ask, but if you read the question, you cannot mark it wrong, it means your question was not formulated properly, or it is not quite right, but 8 students gave the right answer, and there are 5 that, think in a different way, so you can say okay, maybe here a ambiguity, or maybe it's just students who think differently about the matter	Nod heads and agrees
	G2.6	Exactly, yes	

	G2.6	Having a different perspective on it	
	G2.4	In that respect a subjective memo help me a lot	
		Yes	All agree
	G2.4	To not have a fixed memo of right and wrong, and especially 3rd years level, I say good 0 is no, it is totally wrong to 5, okay it was a good complete answer with creativity or whatever, working on a sliding scale	
	G2.7	This is where the problem occurs, you cannot always use a marking assistant, the cannot mark that type of stuff	
		No	Others agree
Facilitator		I want to, now that you are mentioning it, these skills we have talked about is embedded, integrated, and now someone else mark your student's work, so they will not necessarily see it?	
	G2.7	I think if you have made provision for it in the memo, to say you allow space for it in your memo, but I mean the person, the other person who helps to mark it must at least be on the same cognitive level, it cannot be, like we do lots of the time, for example be an undergraduate like a second year marking the first years', they can mark certain questions but they cannot mark all the interpretations	
	G2.4	I use my assistants just for, they mark the whole paper, but I know I'll get the whole pack back with questions, because if I discuss the memo, I give them a chance to argue, to say but can this not also be right, then I say okay, make a tick there and underline the part, then afterwards I look at everything again.	
		Yes, yes	Others agree
	G2.4	But is still saves me time because I do not have to mark the small stuff	
Facilitator		Our last one is time management skills and like you said students who arrive late for class, students without transported etc. But in your curriculum itself, is there opportunity for time management, learning time management skills, do you require it of students, do you assess it?	
	G2.6	Yes, they may not hand in their assignments late, it is not even an option, then I penalise them heavily, so it is just not a problem	
	G2.5	If you miss the test on E-fundi	agree
	G2.6	But I notify them before class, you know, in the first period I tell them this is how it's going to be, and then I never have problems with it, except in really extreme situations where students have valid excuses	
	G2.4	Yes also the production line, I tell them they have 3 practical's, they must plan who is going to do what when in order to be finished on time	
Facilitator		So time management can be implemented in practical's	
Facilitator		Group work, does time management take place?	
	G2.7	Yes, I think with everything, you have deadlines, and there is certain things that must be done, and I think everybody practises crises management	
		Always	laughing laughing
	G2.7	But the thing, there is a date and it must be submitted and you regularly find that the students struggle, when they start to ask you, when you said it must be in by one o'clock, somebody will ask, how important is it that it should be in at 1., then I say, it is very important, or if I just said it must be handed in Tuesday, then they ask, what time on Tuesday, technically it can be 12 o'clock at night, but if it is a hard copy, then they will find nobody there, so, yes, most of them give in on time, so I think that even though their time management is not always so good, they get used to it and they very quickly start doing something because they know that thing must be in on time	

	G2.4	I think it comes back to risks also, you must sometimes take the risk to hand in an incomplete assignment but it is on time, rather to get 0 because it is late	
	G2.3	We now have a case where one of the first, they made a website for themselves, they call it the total accountability something, I'm not sure, they are a group who took everyone's subjects and divided it in the semester physically said you should now do, this page and this page and this page. in every subject, and if you follow this programme you will be ready for each test and every assignment, but they did it on own initiative, I think it is very nice and it has already helped some of the first years a lot	Nod heads and agrees
	G2.4	Who set it up?	
	G2.3	Name	
	G2.4	So one of the students self	
	G2.3	Yes, they do it themselves, and she came to me and asked if they can do such a thing, and then she went in the class and made a short video of it, saying this is it, are they interested, and it was really overwhelming how many students wanted to be part and found it to be positive, some became part of her management team and helped with the layout and everything and then some of the students only participated and could see okay this is what we must do today, those types of things	
Facilitator		Good leadership skills	
		Yes	All agree
	G2.3	But it happened on their own and was very nice	
Facilitator		Creativity also	agree
	G2.3	Yes, and the video and everything was really good, it was nice	
Facilitator		I am going to do a quick conclusion, you must tell me if you think I miss interpreted something, it seems to me many of these skills is integrated with the curriculum, there is no specific tasks and activities being assessed to measure it, I have not received a lot of ideas from you on how this can be promoted, and it also sounds as if many of these skills are developed by the students as part of the complete curricula of being a student, but it is important because it forms part of a consumer scientist's scenario of one day being in the workplace. I do not know if you would like to add something regarding it?	agree
	G2.3	I think a person can consider again, mmm, for first years, almost something like it was done before, perhaps on communication, on leadership, we have that idea that they come from the school and for some reason someone told them about leadership, but if you were not in a leadership position or on a camp, you probably have never dealt with it. But to give them added value, and tell them about humanity, and not only this the subject field and it consists of this and that. You want to do this semi integrated in your class, but you have a very tight schedule and some things just goes by, and it may sometimes be important things, like exactly how should a PowerPoint look like, what is good, what is not good, what is professional behaviour, how do you write an e-mail, these types of things I think is really life skills, and, so it is my suggestion that one might seriously look at such things, for them, so as part of consumer science, a kind of a life skill ...	Nod heads and agrees
Facilitator		Induction programme	
	G2.3	Yes	
	G2.7	No, you know I do not think an induction programme, you have to make it a whole module because the problem with the first years coming here, specifically, they come here and anything for almost those first two months are just too overwhelming for them, they get totally lost, it really is information overload, because everything is said to them, in AGLA, in all these things, and it's just, that stuff is gone, they cannot remember it, I mean, now this quarter it seems for the first time the first years are calmer, and now they can start to take something in	Nod heads and agrees
	G2.1	It must be a second semester module, they must first get on their feet and discover what they need	
Facilitator		Or a little piece each semester, a day, each semester where they only do that type of stuff	

		Mmmm	agree
	G2.3	And I do not know how it works, don't they get any marks or recognition for work that they have done?	
	G2.4	Not at this stage, however we are planning it for the new course	
	G2.3	Because I think it is terribly important that they are absolutely forced to, but I think it will be easier when they come from a certain field, I come as a food student or I come as a fashion student, and there in a module somewhere assessment must take place for it, saying they worked at this location for so many hours, and that place say yes they have worked here, because there they will encounter a lot of the skills that you unfortunately will not learn here, uh, you can only prepare them	
	G2.5	It is not in the programme at this stage, and the plan is to do that in the new programme	
	G2.3	I think it is quite a proposal	
Facilitator		Any other comment? If you think of anything else as you go home, send an e-mail to me or NAME (the researcher) or get her in the hallway, actually an e-mail will be best for she needs the data, she could ad it in the transcription. If you have any more ideas or something that you want to add, it would be really valuable. From my side, thank you for your participation, I know it's your precious time, I know you want to be in the classes and do research, and we really appreciate it, and hopefully one day we can help you with your research projects, thanks	
Facilitator		It seemed to me I don't hear that you do practical projects with your students, don't your students have projects and other stuff outside?	
		The honours has a dissertation where they go to Vaalharts, but the undergrads don't really have something like that	
	G2.3	VVOO, honours, they do it	
Facilitator		It seems to me that skills is something you must develop in practice, and not necessarily something you develop in class with theory	
	G2.4	Part of BMAN they have to do work during the holiday before they can take BMAN222	

For nothing will be impossible with God.

Luke 1:37