

UNIVERSITY OF KWAZULU-NATAL

Examining the Instructional Approach of the National Certificate Vocational Finance, Economics
and Accounting curriculum in promoting employability skills

Lethukuthula Mkhize

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Table of Contents

Acknowledgements	6
Declaration	7
Abstract	8
Chapter 1 Introduction	9
1.1 Background to the study	9
1.2 Purpose of the Study	10
1.3 Research Questions	12
1.4 Limitations of the study	13
Chapter 2 Literature Review	15
2.1 Introduction	15
2.2 Historic view of vocational education in South Africa	16
2.3 Reformation of Further Education in South Africa	19
2.4 Redefining the Further Education sector	20
2.5 Definition of curriculum	21
2.6 Implication of an educational pathway for a curriculum	23
2.7 Vocational Curriculum objectives	28
2.8 Employability perspectives	29
2.9 Framework for employability skills	32
2.10 Employability based curriculum	35
2.11 Conclusion	37
Chapter 3 Framework	39
3.1 Introduction	39

3.2 Human Capital theory	39
3.3 Application of the framework	41
3.4 Instructional theory	42
3.5 Characteristics of the instructional theory	44
3.6 Discussion of the characteristics	45
3.7 Classification of instructional methods	48
3.8 Approaches to Instruction	49
• 3.8.1 Direct instruction	49
• 3.8.2 Discussion	50
• 3.8.3 Experimental	50
• 3.8.4 Problem Based	51
3.9 Conclusion	52
Chapter 4 Methodology	53
4.1 Introduction	53
4.2 Approach	53
4.3 Setting	56
4.4 Data collection tools	57
4.5 Employability skill framework	58
4.6 Subject guidelines	59
4.7 Employability key term(s) framework	61
4.8 Assessment guidelines	62
4.9 Sample Analysis of Subject Guideline	64
4.10 Sample Analysis of Assessment Guideline	70
4.11 Validity	73
4.10 Fieldwork	74
4.11 Theory triangulation	75
4.12 Pattern matching	75

4.13 Peer review	76
4.14 Limitations	76
Chapter 5 Analysis	77
5.1 Introduction	77
5.2 Analysis of the Subject Guidelines	79
5.3 Analysis of Assessment Guidelines	80
5.4 Examination of Subject and Assessment Guidelines	81
• 5.4.1 Applied Accounting	81
• 5.4.2 Economic Environment	83
• 5.4.3 Financial Management	85
• 5.4.4 New Venture Creation	86
5.5 Summary analysis	88
Chapter 6 Findings	90
6.1 Introduction	90
6.2 Potential employability skills in the curriculum outcomes and instructional methods	90
• 6.2.1 Potential employability skills in critical development outcomes	90
• 6.2.2 Potential employability skills in subject outcomes	91
• 6.2.3 Potential employability skills in learning outcomes	93
• 6.2.4 Potential employability skills in recommended instructional methods	95
6.3 Correlation of skills between curriculum outcomes and instructional approach	98
• 6.3.1 Correlation between Critical Development Outcomes and Learning Outcomes	98
• 6.3.2 Correlation between Subject Outcomes and Learning Outcomes	99
• 6.3.3 Correlation between Instructional methods and Learning Outcomes	101
6.4 Summary of findings	102
Chapter 7 Discussion	104
7.1 Introduction	104
7.2 Potential employability skills found in the curriculum	104
7.3 Instructional approach of the curriculum	111

7.4 Implication for future study	115
7.5 Limitations of the study	115
7.6 Conclusion	116
Diagrams:	
Diagram 1	25
Diagram 2	26
Diagram 3	32
Diagram 4	55
Figures:	
Figure 1: Instructional Theory Model	43
Figure 2: Separation of Topics and Outcomes	78
Table 1: Educational Pathways	23
Table 2: Types of Qualifications	24
Table 3: Relationship of key competencies with employability skills	34
Table 4: Classification of Instructional Methods	49
Table 5: Methods for collecting evidence	62
Table 6: Sample Analysis of Identified Employability Skills	65
Table 7: Employability Skills identified within Subject Outcomes	66
Table 8: Employability Skills identified within Learning Outcomes	67
Table 9: Employability Skills identified within Subject Outcomes of Topics	68
Table 10: Employability Skills identified within Learning Outcomes of Topics	69
Table 11: Applied Accounting Assessment Guideline	71
Table 12: Portfolio of evidence and assessment guideline	71
Table 13: Accumulated sum of instructional methods	72
Table 14: Summary of Applied Accounting Instructional Methods	72
Table 15: Applied Accounting Accumulated value of Employability Skills	73
References	118

Annexure A: Ethical Clearance letter	125
Annexure B: Letter of College Acknowledgement	126
Annexure C: Employability Skills Framework	127
Annexure D: Activities to support the delivery and or assessment of Employability Skills	128
Templates	
Template 1: Employability Skills (Subject Guidelines)	129
Template 2: Employability Skills (Assessment Guidelines)	130
Template 3: Instructional Methods	131
Frameworks	
Framework 1: Employability Skill Framework	132
Framework 2: Employability Key Variables	134
Framework 3: Employability Key Term Framework	135
Summary: Instructional Methods	
Applied Accounting	136
Economic Environment	137
Financial Management	138
New Venture Creation	139
Employability Skills in Methods	140
Summary: Subject and Learning Outcomes Employability Skills	
Applied Accounting	141
Economic Environment	144
Financial Management	147
New Venture Creation	150

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Declaration

I, Lethukuthula Mkhize, Declare that:

- I. The research reported in this dissertation, except where otherwise indicated is my own research work.
- II. This dissertation has not been submitted previously for any degree purposes or examination at any other institution or any other university.
- III. This dissertation does not contain any other person's work, data, pictures, graphs or other information unless specifically acknowledged as being sourced from other persons.

Signed:

Abstract

This study set out to examine the promotion of employability skills within one of the national curriculum programs. The examination intended to understand the instructional approach of the official curriculum design by examining the recommended instructional methods. The intention behind the examination was to identify areas in which the curriculum could be strengthened and improved. This study was underpinned conceptually by Instructional Theory, as the focus was to examine the instructional aspect of the curriculum. The key research questions intended to examine which employability skills and instructional methods were potentially dominant within the curriculum, and the nature of instruction reflected by the recommended methods. This approach assisted the study in being able to identify what government envisages in terms of policy and what the implementation of the official curriculum would potentially entail. The study examined the curriculum's subject and assessment guidelines, particularly focusing on the curriculum outcomes and recommended methods to be utilized in achieving the curriculum outcomes. The study investigated the potential embedding of employability skills within the various correlations: between the curriculum outcomes and the recommended instructional methods. Hence the study utilized document and text analysis as its method of collecting and analysing data. The findings do show commonality of employability skills within the various curriculum outcomes and in some parts matching of skills promoted by the instructional methods and those that would be potentially fostered by outcomes. It was discovered that Self-management and Communication were the most identified employability skills both within the curriculum outcomes and instructional methods. The significance of this is that the curriculum is primarily student centered and relies increasingly upon the student to manage their own work, if implemented accordingly. The curriculum allows for more interactive learning and an instructor who has a clear understanding of curriculum outcomes. It was discovered that this does have potential repercussions if the factors within an instructional context are not accommodative enough and if there is inadequate understanding of the implementation of outcomes. However, it did emerge that the curriculum has a strong recommendation of the utilization of Tests and it has no definite instructional nature.

Chapter 1

Introduction

1.1 Background to the study

The apartheid government's intention was to build and maintain white power which consequently distorted the economy and left many black Africans under-skilled (Terreblanche, 2002; Akoojee, Gewer and McGrath, 2005). This, amongst other things, led to a stagnation of provision of skills to meet the needs of a growing economy. Although the new democratic government has introduced reforms to deal with some of the legacies of the past, according to Kraak (2003), the economy is still increasing in capital and skills intensity. This has consequently continued causing shortages at the highest skills levels, increasing unemployment and reliance on survivalist activities at low skills levels (Kraak, 2003; Wedekind, 2010). This has resulted in calls for a clear and revised understanding of the type of vocational knowledge that is needed by tertiary-level students so as to make them employable and reduce shortages of skills in the economy.

In research undertaken by the Human Sciences Research Council (HSRC), the study reflects that the bulk of graduate unemployed students were non-university students, mainly Further Education and Training (FET) college students, specifically (Cosser, Maja & Unwin, 2003). There have been various articulations and arguments surrounding this phenomenon relating to FET colleges and the employment of its students. A point argued by Papier (2006) was that firms within industries have a lack of faith in FET colleges whilst according to Young and Gamble (2006) there was a lack of knowledge orientation and direction by the vocational curricula. It seems that there has thus been a question surrounding FET students and whether FET colleges' curricula can provide employability skills.

The National Certificate Vocational (NCV) was introduced primarily to provide those who were disadvantaged in terms of access to mainstream educational institutions with increased chances of being employable or access to higher education. The main focus, according to the then Department of Education (DoE), was to create opportunities of employability that would in turn assist with achieving sustainable livelihoods (DoE, 1998; DoE, 2008). This qualification

intended to address the poor quality of programs within the college sector, in particular making their curriculum responsive and relevant to the needs of the economy (DoE, 2008).

In 2012, the 'Green Paper for Post Schooling Education and Training' written by the Higher Education and Training Department (DHET) had noted the success of the NCV as being 'poor', as demonstrated by its throughput statistics (DHET, 2012). Arguments have speculatively pointed towards the nature of the learners who enrol for the qualification; a lack of subject and industry expertise by the lecturers; the lack of an instructional design that meets and suits the needs of the industry; poor governance of the colleges and various other reasons (DoE, 2008; DHET, 2012; Gamble, 2003; Gamble, 2004; Young and Gamble, 2006). The department had pointed out that the NCV requires reviewing, and strengthening and that it had committed to maintaining the qualification.

The maintaining and strengthening of the NCV qualification was the background to the interest of examining closely the curricula design of this qualification. Particularly, examining and assessing the official design approach of the curriculum. It is a well-known fact that before you provide any forms of solutions to any matter, an assessment should be done so as to know which parts or aspects require intervention. The NCV is a national curriculum, with national standards, assessments and outcomes and with a clear government interest (DoE, 2008; DHET, 2012). This study intends to inform policy, and contribute meaningfully towards the 'reviewing' of the curriculum and provide various means in how the curriculum can be 'strengthened'.

1.2 Purpose of the study

The need for employability skills in the vocational curriculum has been a continuous discourse in the international scene. The motivation of this research stems from the need to examine whether the employability skills do exist in the vocational subjects in the NCV and to briefly examine the extent to which they are embedded in the curriculum. It is understood that the key role of vocational educational institutions is to support long-term employability and skills development. This realization has seen the need to focus on General Vocational programs which support the development of vocational skills which provide a breadth of knowledge and strong general education foundations (Gamble, 2006; DoE, 2008). The purpose of the NCV has

been, amongst other things, to produce skills and knowledge that are relevant to the economic needs and interests (DoE, 2008). The question being asked is whether the NCV curriculum is relevant in addressing the mismatch and the shortage of skills, and essentially if the vocational curriculum is suitable for providing students with the employability skills that are needed for responsiveness to the local economy.

The DHET has an intention, as discussed in the 2012 Green Paper, to review the NCV in order to strengthen key areas. This study will focus primarily on the official dimension of the curriculum, specifically examining the official instructional design approach of the curriculum. The intention for this examination was to identify areas that may require strengthening of the NCV curriculum. The first angle for the study was to examine the existence of employability skills within the curriculum. The curriculum is a major means to fostering and empowering the learner with the necessary knowledge and skills. Melton (1995) argued that there are certain competencies and skills that are developed by courses within curricula. Curricula not only underpin the various levels of knowledge but play a major role in the sequencing and pacing of that knowledge both for the teacher and learner (Ornstein and Hunkins, 1993). So the study wanted to exam the activities the curriculum suggests and examines the potential existence of employability skills and what type of skills would be fostered by those suggested tasks and or activities.

The term 'employability' not only has many different definitions to it by various writers but has been a term that has been debatable (Gazier, 1998; Hillage and Pollard, 1998; McQuaid and Lindsay, 2005). Poole and Zahn (1989) define 'employability skills' as being another term for 'core' or 'soft' skills. According to Knight and Yorke (2002) it is the existence of these 'soft' skills within curriculums that create chances of student employability within the economy. They argue that many curricula, particularly those of institutions of higher learning, fail to accommodate instructional approaches that promote these 'soft' skills. In various studies that were conducted, it was apparent that some of the new entrant employees who were fresh from educational institutions lacked 'soft' skills whilst they may seem to possess the necessary academic aspect (Poole and Zahn, 1989; Hillage and Pollard, 1998; Maja and McGrath, 2003;

Kruss, 2004). In studies that were conducted by Poole and Zahn (1989) and Maja and McGrath (2003), it seemed apparent that employers were interested more in the employees' soft skills as this was to be the basis of employability. The definition of employability and employability skills is discussed further in Chapter 2 below of the study.

The second aspect of the study was to identify the curriculum's official instructional approach. This was very critical for the study to be able to establish because this would provide how the nature of learning would take place. The study had to deduce this through a study of the recommended instructional methods because the type of methods that would be recommended would provide insight into the nature of the instructional approach (Reigeluth 1999; Jorgensen, 2005; Reigeluth and Carr-Chellman, 2009). This would be productive for future pedagogical training for college lecturers and how they can effectively align their methodological approach with the intentions of the curriculum. It is a known truth that what gets planned and what gets done can completely contradict each other at some times and in other times can work in complete correlation. The study wants to examine the official side of the curriculum and first make a determination whether the actual plan itself does actively foster employability skills or create the potential space for their development. This is going to assist in being able to examine where the problem lies if there is any, in the official side of the curriculum. The challenges relating to the NCV curriculum are many, so examining the official design approach would provide an indication if the extent of the problem is with the actual design of the curriculum or the implementation part of the curriculum. Hence the study focuses on examining the official part of the curriculum, leaving aside questions of implementation for further study.

1.3 Research Questions

It is critical for the study to be able to identify employability skills within the curriculum and be able to establish the curriculum's instructional design. The questions which this study aims to answer are:

- Which are the dominant employability skills that are embedded in the vocational subjects' curriculum outcomes?
- Which is the most recommended instructional method that would be utilized within the vocational subjects of the curriculum?
- Does the instructional approach promote an employability skills based curriculum?
- Do the recommended instructional methods employed promote the employability skills in line with the employability skills in Learning Outcomes?

1.4 Limitations of the study

Although the National Certificate Vocational is a nationally coordinated program with a national curriculum, the study specifically examined one program from amongst eighteen vocational programs. Each vocational program carries with it a particular subject content and instructional approach that would ideally suit the nature of the curriculum and study concerned. The Finance, Economics and Accounting curricula may not always have the same instructional approach as Engineering curriculum would have, nor would the Office Practice and Construction vocational programs necessarily have the same approach. This has limited the study in being able to expand to the other programs, although it does provide a particular principle that can be shared by the other subjects and/or programs.

There were some instances where key words of the examined curriculum outcomes required interpretative understanding of the researcher, although there were relevant frameworks that acted as the basis of guidelines to guide the interpretation. The understanding and knowledge will largely be contextual and will not always be in relation to the subject content of the vocational program and its intended meaning. Some of the frameworks that were sourced had more of an international context to them, which may be seen as progressive from an educational perspective, can be irrelevant in local contextual realities.

The study has been facilitated through seven chapters; the second chapter of the study entails a literature review. In the preceding sections of the literature review it provides through literature relating to the study a brief, historic background of the vocational system in South

Africa. The literature captures the various debates and definitions of the term employability, discussions around vocational curriculum and knowledge. The third chapter of the study explains the conceptual and theoretical framework of the study. The chapter begins by providing arguments and limitations of the theoretical framework and its relevance to the study. The chapter provides the various principles and characteristics of the conceptual framework and how it shaped the study's philosophical orientation. The methodology is found in chapter 4, where the researcher shows how they have gone about in the collection of data and the limitation in which the instruments may possess. In this chapter, the study shows how the research came into deriving the study's approach through model(s) developed by the conceptual framework of the study. Chapter five and six of the study are the data analysis and findings respectively collected by the research. The final chapter provides a summary and conclusion of the research and the further recommendations that the study may have picked up.

Chapter 2

Literature review

2.1 Introduction

There has been a long debate and discussion about education contributing towards employability, with the recent discussion focusing on how vocational education in particular can play that role. With skill shortages being rampant in some economies, academic or scholarly literature in the field of education and development has taken a shape that perceives the primary role of higher and post school educational institutions as one which transforms students by enhancing their knowledge, skills, attitudes and abilities, thereby empowering lifelong, critical and reflective learners (Harvey, 2000; Gamble, 2005; Young and Gamble, 2006). There has been wide acceptance that skill shortages within an economy contribute to the lack of effective economic development and growth (Abedian and Standish, 1992; DoE, 1996; Fisher et al., 2003; DoL, 2007; Pauw et al., 2008; ANC, 2012). This has steered a discourse that has realized a need for an educational approach that responds to the needs of the labour market. The importance of education as a fundamental objective within a country was argued by Todaro and Smith (2006), and has been a policy route that has been adopted by some governments of both developing and developed countries.

The aim of this review is to examine various literatures around the discussion of education in South Africa, specifically post school education which we know as either further education or vocational education, and its contribution towards employability. This review aims to take two forms of approaches in the discussion of the literature; it will frame a macro and micro approach. The macro approach will briefly unpack the historical root of vocational education internationally. It will examine the various literatures around the conceptualization of employability, the definition and the need of employability skills in a vocational curriculum and the implication of the term in various policies. The intention of this approach is to unpack the relationship of post school education and employability internationally through the various discussions of the literatures. The micro approach will examine literature discussing further education in South Africa, unpacking the historical aspect of vocational education and its

contribution to the economy. This approach will focus more on the curriculum design and approaches of vocational education in the South African context and the different views on the types of curricula that are needed for college responsiveness towards employability. The intention for this is to provide an analysis that allows a more narrow approach to what needs to be done within colleges so as to develop a more pragmatic solution towards employability.

The discussion of this literature ties in coherently with the intention of the research by providing a background to the sociology of vocational education and economy. The overarching aim of the research is to examine employability skills in the NCV curriculum so as to assess whether the curriculum possesses adequate core skills that can be acquired, so as to provide the learners with an opportunity of employability. Thus the discussion of literature will assist in unpacking a theoretical lens that will guide the objective of the research in examining the state of responsiveness of the curriculum to the needs of the industry.

2.2 Historic view of vocational education in South Africa

In understanding the historic perspective around vocational education in South Africa, Badroodien (2002) traces and examines the development of the technical and industrial systems of education in South Africa from the early months of 1920 onwards. Gamble (2004) argues that in South Africa, many formal trades were brought into the country by the Dutch, French, German and British immigrants in the 1700s and 1800s. Badroodien (2002) examines the development of these systems by outlining the major issues that informed the provision of these training programs. These key issues were shaped by the wider social, political and economic contexts of the time (Terreblanche, 2002; Wedekind, 2010).

Badroodien (2002) argues that vocational education was first introduced at the Cape Colony, and was comprised of different phases. This is along the same lines as Layton's (1984) discussion that the general educational system in South Africa, as well as the system of technical education, (which later became vocational education) evolved from the British system. The colonial context had economic interests at the centre, the main aim or the first phase of the introduction of vocational education was a key means to driving and ensuring that the rural 'natives' were being civilized, so as to bring in an understanding or awareness of the

economic and social life that was demanded by the imported economic conditions (Malherbe, 1977; Kallaway, 1992). With the continuation of time, in the late 1890s, vocational education came to be directly associated with the social salvation of white children, which bred a foundation of social differentiation within the South African context of the time. Badroodien described this policy shift as a strategy by the colonial state of politically managing the emerging white education system. Chisholm's (1989) observation of this shift takes note that it was a response to socio-economic dilemmas of the time that were manifesting through the educational system as a result of an increase in enrolment and this shift was driven economically according to Malherbe (1977) due to an increase in industrialization.

The increase in industrialization and its development in the late 1800s saw an increase in the demand for technical education, in particular for the unemployed white youth (Malherbe, 1977; Badroodien, 2002; Gamble, 2003). This was further examined by Fisher et al. (2003) in their discussion which identified that the increasing need for technical education was bound up with the development of the South African economy. Gamble (2003) and Badroodien (2002) argue that this industrial development was linked to the mining industry, and the development of railways, harbours and small engineering workshops in urban centres which, according to Fisher et al. (2003), were initiated by the mineral discoveries. Consequently, this led to the development of new urban centres and continued growth of commercial farming and manufacturing (Abedian and Standish, 1992). The histories of industrial and technical education in South Africa have had different origins and the developments of these educational approaches were informed by different contexts (Badroodien, 2002; Gamble, 2003; Fisher et al., 2003; Akoojee et al., 2005; SASCO, 2010). Badroodien (2002) argues that the history of vocational education in South Africa has an intimate link to the history of technical education. He clarifies using Malherbe's (1932) definition that technical education arose out of the growing industrial needs that came as a result of the industry expansion, while industrial education developed out of the desire to help poor white people.

According to Badroodien (2002), industrial education was a measure that was used to prevent poor white people from slipping further into poverty and a means to train poor white people

from rural areas, allowing them to access industrial occupations. Whilst technical education was based more on the local needs, it was a response to economic conditions of the time, in particular the industrialization and commercialization of the economy. Differentiation of both industrial and technical education is critical in understanding vocational education as even though there is a distinction being made between the two, both ensured that the individual who entered that system would contribute to and participate in the country's economic development at that specific time. From this, we can see that industrial education was more based on a sociological perspective whilst technical education was based on more of an economic perspective.

Although Badroodien (2002) provides explanations that show some level of differentiation between industrial and technical education, in some of his arguments it is also evident that there are elements of similarities between the aims and objectives of both approaches. Gamble (2003) argues along the same lines and defines technical education from Smuts' (1937, pg 37) definition, as "a type of education which had reference to manufacturing and industrial pursuits and the scientific principles underlying" those pursuits. Gamble (2003), working from this definition, points out that this type of education focused on the science and art that were applicable to the needs of the industry. Malherbe (1977) described technical education as an approach that was utilized by learners who had left the schooling phase early to pursue available employment opportunities; they may have possessed a secondary education that was vocationally orientated and or a further education status for the adult who found that they could be inadequately prepared for their post or for promotion.

According to Badroodien's (2002) arguments, industrial education was used in the period before 1910 and the institutions that provided this education were essentially for teaching trades in order to equip people to be productive working force; these institutions did not sufficiently link learners to employment opportunities. Notwithstanding the dynamic of race, the government of the time after 1910 realized the increased need for the provision of skills that would be guaranteed by certification, so as to ensure employability in the labour market, given the differentiation of the market and the increasing industrialization (Chisholm, 1989;

Badroodien, 2002). Chisholm (1989) noted this by pointing out that the industrial schools did not turn their “charges” into skilled workers.

Fisher et al. (2003) and Moll, Steinberg and Broekmann (2005) argue that this increasing industrialization came during the lead up to World War II and the period thereafter, which saw significant changes in the way production was organized. There was a need for an educational approach that would not only complement the general functions of schools but would provide training for work. This then consequentially saw the ushering in of technical education through technical colleges and schools, as the expansion of the railways and the emergence of the mining industry led to a growth in technical enrolments. This was due to the establishment of apprenticeship classes and mining engineering programs that were fuelled by an increase in the number of apprenticeship contracts that demanded apprentices attend technical classes (Badroodien, 2002; Gamble 2003). According to Wedekind (2010), technical colleges were designed to provide the theoretical training for apprentices attached to workplaces so as to bolster the economic growth of the country. Technical education played a critical role in providing the economy with a skilled workforce and responded strongly to the labor market.

It is noted and acknowledged that in the years following the introduction of technical education, the political shifts within the South African landscape were seen to have effects on technical education and its relationship with the economy. The critical point that occurs across literature is that technical education as an approach was a fundamental system in the production of skills for a growing economy. It was this educational approach that laid the basis of vocational education which has become central to economic life and skills production.

2.3 Reformation of Further Education in South Africa

The historical legacies of apartheid had seen an intense racial exclusion, restriction and segregation of educational opportunities, including apprenticeship opportunities (Badroodien, 2002; Gamble, 2003; Wedekind, 2010). The skilled work reservations that had been birthed by the segregationist policies led to severe skills shortages that placed a constraint on the growth and development of the South Africa economy (Fisher et al., 2003; Akoojee et al., 2005; ASGISA, 2006; Pauw et al., 2006; SASCO, 2010). With the political conflict taking place during the

apartheid period, in the later years the country faced a decline in the growth of the economy which then saw a shift of economic ideology to a market-orientated philosophy, as a result of the need for skilled workers. This resulted in periods of intense policy positioning and developments in the early 1990s and with the introduction of a democratic government, new policy frameworks for vocational education were put into place (DNE, 1991; Fisher et al., 2003; Moll et al., 2005; DoE, 2001). According to Wedekind and Harley (2004), they argue that this attempt of the democratic government was a reformative position rather than transformative one and was mainly a political drive away from the apartheid educational policy. They argue that these reforms were symbolic changes rather than corrective change.

2.4 Redefining the Further Education sector

The conceptualization for the reformation of the further educational sector was spelled out in the DoE's 'Green Paper on Higher Education Transformation' (DoE, 1996). This paper outlined a need for an educational approach that offered qualification programs that focused on human resources, which would consequently contribute to the country's economic development and growth (DoE, 1996). The main function of the then technical colleges and further education sector according to the Department of Education, as discussed in the Green Paper, was to prepare individuals for the world of work. The DoE further stated that there needed to be an integrated system that would see the merger of the technical and further education sector. Fisher et al. (2003) describe this process as one that was intended to support the developmental challenges that South Africa was facing and highlighted the need for programs that were knowledge driven and would fit the character of a modern economy. The essence of Green Paper was to discuss how higher and further education would link to the modern society and economy, but some of the challenges of the paper were that the discussion was broad, focused on politics and less articulate on the practical educational realities of the implementation process.

The 'Green Paper on Further Education and Training' viewed the FET sector as a contributor to economic growth. According to the Department of Education (1998), this sector would promote human capacities, knowledge and the production of a skilled worker (DoE, 1998). In the paper,

the DoE discussed the FET sector as having a key role to play in developing the skills through which the needs of the people will be met. The DoE envisaged that it was going to be this sector that would be strategic in contributing to the global economy. The approach by the department for this sector as indicated in the paper was a developmental approach. The FET sector would develop human potential and such development would be an appropriate response to local and international realities, as there had been general skills shortages and a lack of clear articulation with the labour market. In any country, labour is the basis of a functioning economy because this is where the source of productivity and competition begins (Castells, 2001; Todaro and Smith, 2006; Parkin et al, 2010). This effort of the synergy between the needs of the labor market and the education and training system has been an international drive; this has been due to the embracing of new skills and knowledge for the meeting of economic interests (DoE, 1996; DoE, 1998; Unwin, 2003).

The South African Student Congress (SASCO), guided by a Marxist-Leninist philosophical perspective, argued that the focus on huge industries and economy, opposes the development of people's capacity for progressive change within their lives (SASCO, 2010). Their view was that FET institutions were designed to serve the interests of the market place only and not the people. Unwin (2003) argues that it is in the interests of policy makers to make further education more responsive to the demands of the economy. However, this responsiveness, according to Unwin (2003), can make colleges subject to constant change and can result in a college's loss of identity. The essence behind the reformation of the vocational approach and of the further education sector, that included technical colleges, was to create an education and training system that would respond to the needs of the economy. The aim according to the DoE was to provide the economy with skilled human resources.

2.5 Definition of curriculum

The discussion of curricula has been one of the increasing discussions internationally, with it being the link to the world of work and the employment system (Gamble, 2003; Gamble, 2006). According to Ornstein and Hunkins (1993, pg 9) a "curriculum can be defined as a plan for action or a written document that includes strategies for achieving desired goals and ends".

This definition, according to the instructional theorists Tyler (1949) and Taba (1962), entails that the curriculum as a plan has a beginning and an end, as well as a means so that the beginning can progress to an end. Saylor, Alexander & Lewis (1981) define a curriculum as a plan for providing sets of learning opportunities for persons to be educated. Wiles and Bondi (1989, pg 131) define curriculum as “a plan for learning whereby the objectives of the curriculum determine what learning will be important”. These definitions provide an understanding that a curriculum must be a planned framework that derives an action for a particular development. It is critical that every curriculum has desired goals and ends, and that the process or the means to the end results are critical in achieving the end. The essence of any form of curriculum which is clear from these definitions is that those who are recipients of it must learn or be educated by its framework.

Spottl (2009) asserts that a curriculum must not only perform to simply answer to the needs and interest of the labour market but it must also react to the changes in the labour market and be able to take into consideration the multi-dimensional requirements of employees and the actual learning process. This statement firmly aligns itself to the call by the Department of Education for a flexible curriculum in the further education sector. It is important to note that any form of curriculum (in existence or being developed) must be responsive in nature and adequately structured to provide the necessary skills and knowledge appropriate for dealing with the existing challenges in society.

According to Reed et al. (2012), curricula are prescribed at different levels, such as national curriculums, provincial guidelines and teaching plans of individual teachers. They argue that the curriculum has two aspects to it: one part of it that is planned or intended and the other which is going to be enacted or implemented. Instructional theorists state that there should be a separated analysis between what happens in the classroom and that which is planned (Ornstein and Hunkins, 1993). Oliva (1992), influenced by the school of instructional theory, argues along the same lines as Reed et al. (2012) that the curricula is comprised of plan, and the instruction is the implementation part of it. Gamble (2003) argues insightfully that what is taught and how it is taught are directly related to the supply of knowledge and skill. Reed et al. (2012) outline

that the intended or planned curricula can take many forms, namely an official syllabus document; a textbook or a curriculum framework. According to Reed et al. (2012) both aspects of the curricula are necessary and yet both aspects have their own limitations. They argue that the absence of a clear national curriculum may lead to several difficulties, amongst those being a lack of a standardized educational process and system that intends to produce standardized norms and outcomes. Further, a range of interests may arise that may not cater for national interests of the country generally and economy particularly. Although a national curriculum has positive intentions, Reed et al. (2012) argue that various educational and instructional contexts do not meet the national objectives of the set curriculum.

2.6 Implication of an educational pathway for a curriculum

With vocational education having its origin in the process of industrialization, this has resulted in there being a division between academic and vocational education (Young, 2006). Young points out that the type of qualification that is designed is going to determine the type of curriculum that is needed and that the type of qualification is determined by the type of educational pathway taken. This is illustrated using the table (1) below taken from Young (2006):

Table 1: Educational Pathways

	School only (Type 1)	College only (Type 2)	College + Workplace (Type 3)	Workplace + College (Type 4)	Workplace only (Type 5)
Type of qualification/ pathway	General Academic	General Vocational (and General Academic)	General Vocational	Occupational	Occupational

Source: Young cited in Young and Gamble (2006, pg 50)

Young identifies the different educational pathways and what type of qualification each pathway leads to, as well as the type of institution that is responsible for producing a specific qualification. The institutions are represented by the *Type* in the table, according to Type 1 is a school based institution that caters for the General Academic approach and would mainly be

high schools. Type 2 is a college based institution, in which the curriculum may be mixed and may offer some programs that are catered for at a high school; this has a mixture of academic and vocational learning. Type 3 is college-based institution with a workplace forming part of it, the learning in this category is specific and it relates to the type of workplace. Type 4 is mainly for those who are in the field of work and need improvement or upgrading of skills, specific to what they are doing. Type 5 takes the shape of learner ships or the system of former apprenticeships.

Young then categorizes the different educational pathways into three main pathways, namely: General Academic, General Vocational and Occupational. Each of the pathways have a particular knowledge base that forms the basis of the curriculum, this is shown in table 2:

Table 2: Types of Qualifications

	Discipline-based knowledge	Occupationally re-contextualised disciplinary knowledge	Knowledge implicit in performance at work
Type of qualification/ pathway	General Academic	General Vocational	Occupational

Source: Young cited in Young and Gamble (2006, pg 54)

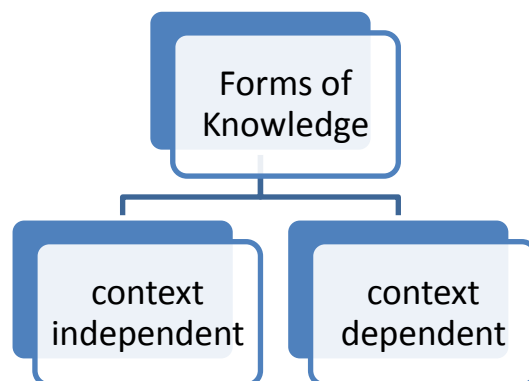
According to Young, for the General Academic approach learning, the type of curricula will be based on subjects derived from University-based disciplines. The dominant role for this approach is to prepare students for University and progression into higher education. The General Vocational approach is not directly shaped by academic disciplines but rather re-contextualised disciplinary knowledge. Young describes this process as being dual: the one being knowledge from members who are currently in professions that are relevant to the subjects that are going to be included. The other way is through ex-professionals who provide more of the pedagogic re-contextualisation of the knowledge. The reason for this is that vocational knowledge is sector based and occupation specific, and so the vocational subjects will take into account the occupational sectors they relate to. Thus according to this identification from Young, the General Vocational approach should generally have key

knowledge and skills that clearly fall in line with the occupation. The tasks and activities that are embedded in this approach should be framed as a result of specific job designs and occupational descriptions which should, theoretically speaking, make the vocational approach responsive and relevant.

The key understanding of this approach using Young's explanations should make the curriculum relevant. So according to Young's argument, what makes the vocational curriculum relevant is that its design and approach is founded upon specific skills and knowledge of the industry concerned. Gamble (2003) argues that the South African vocational curriculum has complexities particularly between the integration of theory and practice. She argues that colleges cannot compete with workplace constant knowledge change and dynamics.

Gamble (2006) explores the three different educational pathways that inform the nature of curriculum knowledge, focusing more on the similarities and differences, from a knowledge based angle. In her explanation, working from a premise established by Greek philosophers and historians, Gamble firstly suggests that meaning (knowledge) is derived from a context of thoughts and context of human action. This then lays the foundation for her to categorize the forms of knowledge into two contexts: *context independent* (theoretical or conceptual) and *context dependent* (practical), as shown in Diagram 1.

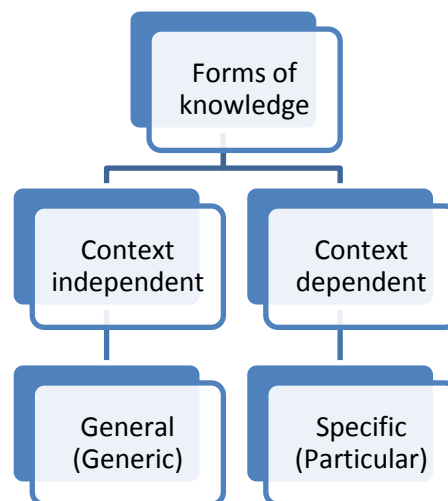
Diagram 1



Source: Gamble, cited in Young and Gamble (2006, pg 89)

According to Gamble, knowledge that is *context independent* is based on two forms of investigation; this is where humanities and social sciences are derived from. The one form is logical deduction: conclusions are derived based on what can be observed or experienced. The other form is an inductive method, resulting in abstract generalizations that are based on evidence of particular results. Knowledge that is derived from a “dependent context” is tied to the real world of practice and experience; it is developed in and through human action. This knowledge is primarily how one can do something and it is gained through experience. Based on Gamble’s understanding, it can be said that a *context independent* form of knowledge is general in nature whilst *context dependent* knowledge is particular or specific in nature. This has been illustrated in diagram 2.

Diagram 2



Source: Gamble, cited in Young and Gamble (2006, pg 92)

According to Gamble’s argument, the type of knowledge underpins the type of curriculum one will design and have. She argues that any curriculum planner must make decisions about what should be taught (selection), the order in which things should be taught (sequencing), how much should be taught in a particular period of time (pacing) and the forms of evaluation. Ornstein and Hunkins (1993) summarize this and state that these dimensions are critical to be noted when considering a curriculum design.

Gamble undertakes to show that *context-independent* forms of knowledge will derive mostly general academic based curriculums and *context-dependent* forms of knowledge will derive mostly general vocational curriculums, due to the knowledge being specific. In her arguments, Gamble explains the different ranging implications for curriculums; she explores the various implications that go with the curriculum approaches: a curriculum approach that is purely theory based; a curriculum that has theory but with no practice and one that has practice as theory. She presents an argument, that the expansion of the college sector has introduced with it new fields of study that demand a practical orientation component to them. She argues that college curriculums should be a theory-practice combination, but often what has been the case is that theory is simply a reproduced written version of practical work procedures and although such approaches create abstract thinking for the students, they could be better equipped with knowledge derived from practical activities than from books.

Gamble's argument shows that a theory approach to an activity that requires performance can create a challenge to those who may not be strong with intellectual activity. The core of Gamble's argument is that a vocational curriculum needs to entail both conceptual knowledge (context-independent) and practical (context-dependent) knowledge but the relationship between the two forms of knowledge can be complex. The complexity of this relationship lies in the fact that the conceptual knowledge (academic) tends to be too contextualized and loses its context-independent nature whilst the practical knowledge, when it is lifted from its knowledge base, becomes theoretical and loses its context-dependent nature.

These are the complexities that Gamble presents that are faced by the vocational curriculum within colleges because there is more of an emphasis on intellectual capacity which is believed to be developed more by the General Academic route which provides more of academic disciplines. The challenge arises because the orientations of the vocational subjects are intended to be more practical in their formation than theoretical (DoE, 2007). The dual orientation of the vocational subjects align with Young's (2006) argument of a type 2 qualification pathway as shown in table 1. According to Gamble (2003; 2006) the arising of the

challenges of the curriculum lies in this duality. Young (2006) had argued that the vocational curriculum could have a dual instructional approach to it though this argument doesn't consider academic discipline expertise. So this understanding will assist the research in exploring the instructional nature of college curriculums in the nature of skills and knowledge that it promotes.

2.7 Vocational Curriculum objectives

The former Minister of Education, Kader Asmal, once stated that colleges must be able to develop their capacity to offer greater support to learners, create innovative partnerships with businesses, industries and communities and be more responsive and flexible regarding the college curriculum (Unwin, 2003, pg 1). The issue of a responsive and relevant vocational curriculum has been a growing concern in the further education sector. The fundamental role of the further education sector has been packaged in a task of responsiveness and relevance, and this has been envisaged to be done by equipping students with knowledge, skills and competencies that provide them with the necessary attributes for employment (DoE, 1998; DoE, 2008; Gamble, 2003; OECD, 1998). This then had meant that the college curriculum needed to be responsive in its development and framing, and that it has embedded the necessary skills that would achieve employment. Pauw et al. (2006), when discussing the nature of graduate unemployment in South Africa, argues that the increase of the graduate unemployment from this system was largely related to problems within the system, mainly the quality of the programs.

Cosser et al. (2003), in their research, argue that in the college sector, the curriculum had lacked a general adequate preparation for the labour market. The ANC and government had noted in its discussion and policy documents the challenge surrounding the FET college curriculum and the need for its revision (DoE, 1996; DoE, 1998; ANC, 2012). It is clear that there has been an awareness and understanding of the challenges that surround the quality of the college education, which has included the issue of the curriculum, amongst other things. It is understood that the curriculum is the link of knowledge to the world of work; by in large, it is

the curriculum that ideally possesses or entails attributes that are required for employability and entry into a particular vocation.

Although the challenge of the FET college curriculum has been a consistent one, strides have been made by the DoE with the formation of occupation councils and curriculum committees that were tasked with looking into strengthening and developing curriculum frameworks to ensure responsiveness and relevance to the economy (DoE, 1998). According to Spottl (2009), there is a close interrelationship between employees' competencies and the curricula that is formed. He argues that it is the curriculum that determines the framework conditions and competency development, hence there being a need for a curriculum that is able to meet the needs of the market and individual too. According to Spottl's argument from the latter statement, this therefore entails that the vocational curriculum is a critical means for the provision of developing work based skills.

From an alternative perspective, Jansen (2004) suggests that the curriculum organization contributes to student motivation and study progress and student behaviour is essentially adjusted to the way the curriculum is organized. It becomes evident that the vocational proficiency is acquired or gained through a vocational curriculum. The vocational curriculum should entail adequate practice of competency to match the needed professional ability (Jansen, 2004; Gamble, 2003; Young and Gamble, 2006).

2.8 Employability perspectives

The term employability has been used when emphasis is being placed on education and training systems and for the preparation of work as a labour supply and labour demand concept (McQuaid and Lindsay, 2002; Gamble, 2003; McGrath et al., 2010). McQuaid, Green & Danson (2005) argue that this term 'employability' as a concept has been within debates that surround unemployment and labour markets over the 100 past years. They argue that labour market policies of countries within the scope of Europe Union have had this concept as a central term. This term is used notably in South Africa's government educational policy documents as it views vocational institutions as key stakeholders to supporting long-term employability and skills

development (DoE, 1998; DoE, 2008). Hence it is critical that the term is understood in the context of its approach and from the perspective it comes from.

McQuaid and Lindsay (2002) argue that the term is rooted in and viewed from various definitions and perspectives ranging from sociological, psychological and economic orientations. They suggest that this term is traced from international labour-market deregulation and large scale industrial restructuring which have resulted in new forms of working and different relationships between employer and workforce. They argue that this term became popular in corporate human resource management thinking during the early 1990s. Gazier (1998) argues along the same thinking to say that this term emerged as a result of debates surrounding unemployment and labour markets. McGrath et al. (2010) suggest that the term employability was long established back in the early 1900s; this shows the different definitions and understandings of the derivation of the term. McQuaid and Lindsay (2002) suggest that the theoretical antecedents of this term are from an economic perspective and can be traced back to the human capital theory in which Becker (1975) argued that the embedding of transferable skills in the education and training systems can improve unemployed people's chances of productivity and economic growth. Thus from the economic approach, the term employability tends to be linked with the improvement of human development so as to contribute towards economic growth and productivity.

Based on an economic perspective of the term, according to McGrath et al. (2005), the UK's local Learning and Skills Councils define employability as a set of skills and competencies which enable an individual to gain employment. They argue that employability to a certain extent relates to both unemployed people seeking work and those in employment seeking better jobs with their current employer (pg 191). In an attempt to arrive at a clear definition, Hillage and Pollard (1998) define employability as an individual's ability to gain initial employment, be able to maintain that employment, be able to move between the roles within the same organization, obtain new employment required and be able to secure suitable, fulfilling work. McQuaid and Lindsay (2002) argue that Hillage and Pollard's (1998) definition provides a useful basis for a

policy framework. Serrano (2001) argues differently, saying that the definition by Hillage and Pollard provides a reactionary understanding of unemployment, Serrano argues that this definition seeks to blame the jobless individual rather than explore the lack of opportunity in the labour market. Knight and Yorke (2002) argue that this definition by Hillage and Pollard provides a danger of encouraging tokenistic thinking and overlooks the personal aspect of the unemployed. McQuaid and Lindsay (2002) suggest that this definition has its own limitations as it does not accommodate the dynamics of any local contexts. Economic changes that have an impact on the local level, these local changes that may occur in the patterns of demand side of the economy can consequently have a crucial impact on the employers' industrial labour demand on skills and recruitment opportunities. This definition does not note the socio-economic challenges and dynamics of regions, provinces and countries as a whole (Campbell, 2000).

According to McQuaid and Lindsay (2002), and McQuaid et al (2005) they acknowledge that the term 'employability' is contested in both theory and policy and the view of which approach is taken is dependent on the adopted definition. There are two main approaches that this (Hillage and Pollard) definition works from: the one being from an individual's readiness for work and the other being factors that influence whether an individual can get relevant work. Evans et al. (1999), working from the same definition, suggest that employability needs to be divided into supply-side and demand-side, whilst Kleinman et al. (1998) works the definition further and discusses it from a range of 'micro' and 'macro' approach factors , which are illustrated in diagram 3:

Diagram 3:

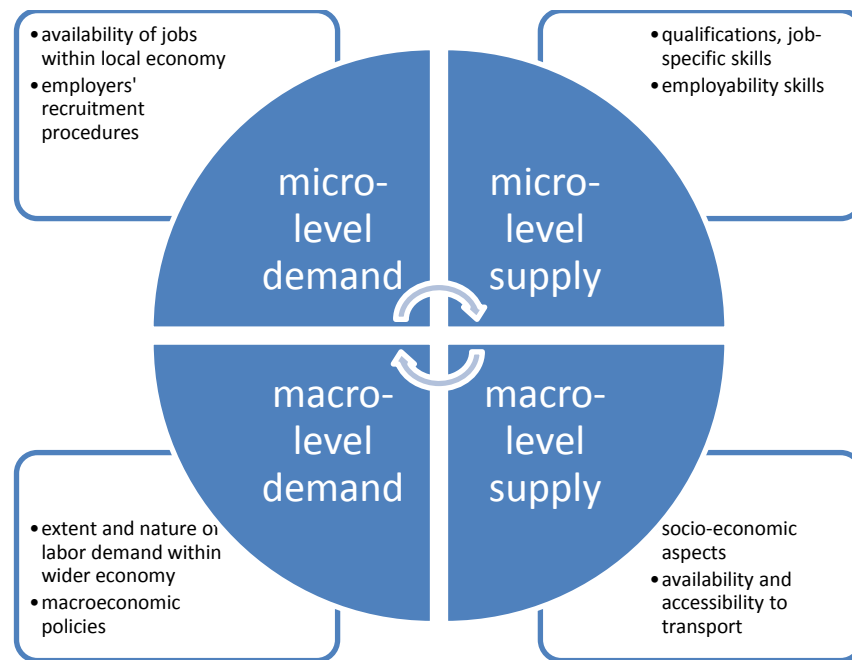


Diagram illustrating the macro and micro factors of employability, cited in McQuaid and Lindsay (2002), pg 617

The study will be orientated by Hillage and Pollard's (1998) understanding of employability. In as much as there are limitations of Hillage and Pollard's definition of employability as acknowledged before of the contestation of the term, their definition provides two dimensions that allow exploration and research of and for policy formulation and design. The two dimensions that it provides exploration for concerning policy: 1) it is examining an individual's readiness for employment. 2) Exploring the factors that influence an individual to get work. Now those factors can be a various range depending which are desired to be explored, in this case for this study, educational factors would be considered. The study is going to be examining educational factors particularly from the vocational sector as determined by policy. This allows for the exploration of the relationship between education and the economy and the various factors that are at play in achieving employment opportunities.

2.9 Framework for employability skills

According to Melton (1995), employability and the development of employability skills contribute significantly to the education and training of an individual. In his work, Melton argues that skills bear a close resemblance to competencies and are often developed within the

courses. He claims that the subjects contribute to the development of knowledge and understanding and he further suggests that knowledge contributes to the development of competencies. He argues that there are four types of knowledge that allow this to happen: knowledge that underpins competence, knowledge that is an integral part of competence, knowledge that facilitates the transfer of competence and knowledge that facilitates change. From Melton's perspective, it can be understood that subjects should entail the necessary knowledge so as to develop learner competency, this ideally would be beneficial for any educational system. This assists in providing an understanding of the importance of outcomes and what each subject must achieve as the end result. Poole and Zahn (1993) suggest that competencies are characterized as the hallmark of today's expert worker and they are a critical aspect in the employment dimension. They argue that competencies should be acquired in schools and developed through the curriculum, and further refined through on-the-job experience and further training. Poole and Zahn point out those employability skills are needed if success is to be achieved on-the-job and that the teaching of these can serve to ensure that students can be successful in the world of work.

McGrath et al. (2010) argue that there have been a large number of authors who have sought to develop typologies of employability and the various ranges of the skills that accompany these. Internationally there are different terms and views of employability skills; others define them as 'core skills' or 'generic skills'. Bush and Barrick (1987) define employability skills as personal values, problem-solving and decision-making skills, relations with other people, communication skills, task-related skills, maturity, health and commitment to one's job. The Department of Education, Science and Training of the Australian government, developed a training package that saw a working framework for the practice and embedding of employability skills within training modules. The document suggests that employability skills in and of themselves are not new concepts, but they are derived from the non-technical skills and competencies that have always been an important part of effective and successful participation in the world of work (DEST, 2006, pg 5). According to the Australian government, employability skills are conceptualizations of generic skills, they contribute towards an individual's effectiveness in the workplace. The essence of these skills and the importance of these being

embedded in the curriculum is that “they seek to establish the basis for recognizing important sets of skills which support the successful accomplishment of the task-based activities central to any job role” (DEST, 2006, pg 8).

The employability skills were derived from key competencies that were used in the Australian National Training System. The key competencies were: communicate ideas and information, work with others in teams, solve problems, use technology, collect, analyse and organize information, plan and organize activities. According to the government, these were the competencies that prepared the learners for the world of employment, which ultimately led to employability skills.

Table 3: Relationship of key competencies with employability skills

<u>Key competencies</u>	<u>Employability skill</u>
Communicate Ideas and Information	Communication
Work with others and in teams	Team work
Solve Problems	Problem solving
Use Technology	Technology
Collect, Analyze and organize Information	Planning and organizing
Plan and organize activities	Self-management
	Learning
	Initiative and enterprise

Source: cited from Department of Education, Science and Training, 2006, pg 10

In order for employability to be achieved, employability skills need to be embedded in the subjects through competencies and outcomes. According to the government, this approach is achieved when employability skills are drawn from job and occupation descriptions; this is an effective mechanism as it sets up direct and relevant educational activities that relate to the world of work. According to this approach, the qualification that is designed will lead to a curricula that has activities that are formulated and instructional approaches that are based on what is taking place in the industry. Consequently, employability skills will be embedded and contained in the curricula outcomes which will be achieved through the activities, exercises and

assessments found within the curricula. The study will be examining the assessments and instructional methods found within the assessments in trying to understand the instructional approach of the curricula and in identifying the various existing employability skills.

2.10 Employability based curriculum

According to the DoE in its document 'National Plan for Further Education and Training Colleges in South Africa', vocational education is a "means to preparing students for occupational fields" and "increasing employment opportunities for graduates" (DoE, 2008, pg 14). The DoE had expressed in the 'Green Paper on the Transformation of the FET sector' the need for an integrated approach to education and training, after it had viewed the need for new qualifications and curriculum for this sector that would be responsive to the linkages between the college, higher education and world of work (DoE, 1998). They had envisaged that this would happen by designing a curriculum framework that would be flexible and integrated. The flexible combination of this curriculum would be divided into three streams of learning subjects: fundamental, core, and elective. The integrated approach would be to have a combination of academic and vocational subjects within a specific curriculum. According to the DoE, the principle behind this was to ensure that the FET system has curricula combinations that allow responsiveness and flexibility and that they are embedded with intellectual and practical skills.

Gamble (2003) points out that preparation for an employability curriculum requires both general and vocational education approaches, however she argues that this approach for the colleges is already offering many inputs that are required for employability but the challenge is that the approach does not consist of the right combinations. The basis of Gamble's argument is the approach of curriculum being market driven and lacking the needed content and practice to meet the skills demand required by the market. She argues that the dictates of the market driven approach will risk colleges losing their educational base. An employability curriculum, Gamble argues, requires a strong combination of practice and theory, both of which are crucial for the curriculum. She presents that the development of technical capability requires both of the approaches but the challenge that Gamble reveals about the vocational curriculum is its

lack of the needed forms of knowledge to produce the required vocational skills. The essence of Gamble's argument is that the dual nature of knowledge in the curriculum must be balanced in order to realize employability, with other factors held constant.

The introduction of the National Certificate Vocational (NCV) which had been envisaged to be a high and another mechanism to change not only the poor perception of colleges but also to be able to be responsive and register priority skills programs that address the socio-economic needs. According to the DoE, the qualification structure of the NCV would allow access to higher education and employment (DoE, 2008). The DoE acknowledged in the Government Gazette 'National Plan for Further Education and Training Colleges in South Africa' that the shift in the labour market had seen the need for skilled workers. The DoE categorized these skills into two: critical, those which are embedded in the qualification design; and scarce, which are determined by the economy. Each qualification design of the NCV has embedded skills in it that should respond to the need of the industry. This understanding is critical for the research that will be undertaken by this project as it will assist in examining the curriculum with this understanding in mind. The Green Paper (1998) spelt out that the development of the new curriculum framework which came to be the NCV would be based on the critical outcomes and lifelong learning developmental outcomes (DoE, 1998; DoE, 2008).

According to the South African Qualifications Authority (SAQA), the critical outcomes describe the qualities which are needed for the student's development in the education and training system which promote skills that are needed for employability. This is in line with the generally held view of SAQA when it comes to defining a qualification, that it should enrich a person and provide enhancement of marketability and employability (SAQA, 2000). What the SAQA literature reveals is that the Critical Development Outcomes (CDO) are the basic that underpin the NCV, and thus the NCV must be analysed in the context of these outcomes, the essence of which is to produce employability skills that can be acquired by the students.

2.11 Conclusion

This literature review explored the history of vocational education in South Africa; the root of it emerging through technical education. What was very clear from this point was the connection between education and economy; that education plays a critical role in the formation of skills towards the economic growth and development. The literature explored the reformation and redefining of the vocational sector which brought with it many changes that consequently resulted in a shift from VET to FET. This shift necessitated an integrated approach to the curriculum in particular and highlighted the need for it to be responsive and relevant. The literature showed the different educational pathways and the implications that each pathway has for the curriculum. The exploration of the literature revealed the different forms of knowledge that each pathway entails with the General Vocational being more specific and context dependent. The integration approach combined both General Academic and General Vocational, with an intention of ensuring flexibility and responsiveness through the reviewing of the literature did acknowledge the complexity that exists of integrating theory and practice particularly the FET curricula. The introduction of the NCV encompasses this approach; the literature indicated that an employability based curriculum is better achieved when there is a strong balance of both theory and practice. The intention behind the introduction of the NCV was to support long term employability, which meant that the learning programs were designed in such a way as to suit that intention. Hence the current approach of the assessments of the NCV course, of it being 60% practical and 40% theoretical. The literature did reveal the reality of practical work done through theory instead of it being done practically. The literature did reveal this as being one of the existing weaknesses of the vocational curricula

The literature showed that the foundation of the NCV was built upon critical and developmental outcomes which entail employability skills as their main competencies. This is critical to note - that any undertaking of the NCV curriculum must be able to reflect employability skills that are embedded in it. The Australian government's employability framework discussed the origins of employability skills and their implementation in training programs and curricula. It must be noted that, according to that framework, employability skills

are embedded in outcomes that provide the type of activities and exercises that will develop the needed competencies. One of the key means adopted by the Australian government was to assess the key employability skills summary for the industry and then formulate qualification and curriculum designs that respond to the job and occupation description. The literature managed to show that the curriculum is the linkage to the world of work and employee competency, any work that needs to be done and reviewed lies in the type of curriculum and the means of its delivery.

Chapter 3

Framework

3.1 Introduction

This study draws on the human capital theory as refined by Olaniyan and Okemakinde (2008) from the work of Schultz (1971) and Becker (1975) as its theoretical framework. The macro approach of the study is to examine the relationship that vocational education has with the economy and whether the educational approach is contributing towards skill production for the labor market. The study has thus drawn on the human capital theory to provide the macro theoretical approach towards the research, with an intention of outlining an economic perspective within the field of education. The focus for this is to examine the relevance of the curriculum towards the market. The micro approach of the study is to investigate a narrower focus on the implementations of the educational approach and to determine whether relevant activity is taking place to promote the production of a knowledgeable and skilled workforce. For this approach, conceptually, the study has drawn on the instructional theory as an educational theory to assist in the investigation of the implementations in the educational approach.

The conceptual framework for the study has been drawn from Reigeluth and Carr-Chellman's (2009) exposition of an instructional theory taken from the work of Reigeluth and Moore (1999). The conceptual framework explores the way in which instructional design methods are being used in the educational approach, for the promotion of employability skills. The conceptual framework will be the lens through which the research will be able to examine if the educational objectives of the system are being attained. This chapter will show how the theoretical and conceptual frameworks explain the phenomenon that is being studied.

3.2 Human Capital theory

This theory was derived by economists from the school of neoclassical economic thought who argued that education was an economic good. According to Olaniyan and Okemakinde (2008) from this economic perspective, education is both a consumer and capital good and serves as an input into the production of goods and services for economic benefit. They argue that

education is a critical input in the development of skills for the production process and activities and a key factor to the development of human resources for the pursuing of economic and social transformation. They derive their argument from the work of Schultz (1971) who argued that education is instrumental to the building of a productive economic workforce and that to increase productivity in the labour market, there needed to be an investment in human capital. On the development of Schultz's work, Becker (1975) argued that activities that influence real income and productivity are as a result of the embedding of resources in people through the acquiring of information, schooling and on-the-job training. He suggests that factors other than physical resources play a larger role in the productivity process and the need for human investment in productivity is paramount. In Becker's work, which examines the money rate of return to college and high school education in the USA, he makes a claim that unemployment rates tend to be negatively related to levels of skills.

Blundell et al. (1999) suggest that there are three main components that are derived from the human capital persuasion that are major factors of education and training on the labor market, firm performance and economic performance. They suggest that *qualifications and knowledge; skills, competencies and expertise; and early ability* are the three components or pillars that human capital is founded on. They argue that educational investment which comes through these components enhances the productive potential of the individual. In their study of the UK context they were able to find that formal qualifications have significantly larger returns than having no formal qualification. In their study of Organization for Economic Co-operation and Development (OECD) countries, they found that expansion of education paralleled with the growth and development of the economy and that there was a link between the ability to innovate and adapt to new technology and the stock of qualified workers. Olaniyan and Okemakinde (2008) point out that education creates an improved citizenry and that this will result in the needed social change and an improved standard of living.

Olaniyan and Okemakinde define human capital as that which "represents the investment people make in themselves that enhance their economic productivity" (pg 158). They argue that "human capital theory emphasizes how education increases the productivity and efficiency

of workers by increasing the level of cognitive stock of economically productive human capability which is a product of innate abilities and investment in human beings” (pg 158). So according to their argument, human capital is increased when the learner’s ability is improved. So the cognitive domain and competency is a crucial area for development for the realization of this theory. They substantiate this argument by bringing forth an argument raised by Babalola (2003) that the rationale behind the investment in human capital is that people must be encouraged to “develop entirely new ideas, products, processes and methods through creative approaches” (Olaniyan and Okemakinde, 2008, pg 158). They argue that education plays a great and significant role in the economy of a nation; they suggest that an individual’s human capital and investment in it can lead to greater output for the society and enhance earnings for the individual worker.

3.3 Application of the framework

The core of their argument for this dissertation is that education is a source of economic growth and development, that the educational approach must be able to “stimulate and informs the individual and teaches him how and why to make demands upon himself” (Olaniyan and Okemakinde, 2008, pg 160). According to this expression, increasing the level of cognitive stock is an investment in human potential. In the context of the study, the delivery means within the vocational education system, the knowledge and skills acquired through the means must be able to contribute towards the learner’s ability in the workplace, through improvements within the cognitive domain. Since the methods in the curriculum are going to be assessed, it is critical that the methods be the transporters and promoters of the needed cognitive ability to lead to employability and worker productivity. Thus the application of this framework to the study will contribute towards analysing the contribution of the methods used in the curriculum in promoting the various skills.

The theoretical lens of this framework is to guide the researcher in examining the set of skills which are being acquired in the learning process, which provide a return on the human investment because human capital argues that the acquisition of knowledge can contribute to the development of competences (Melton, 1995). Melton argues that there is a close

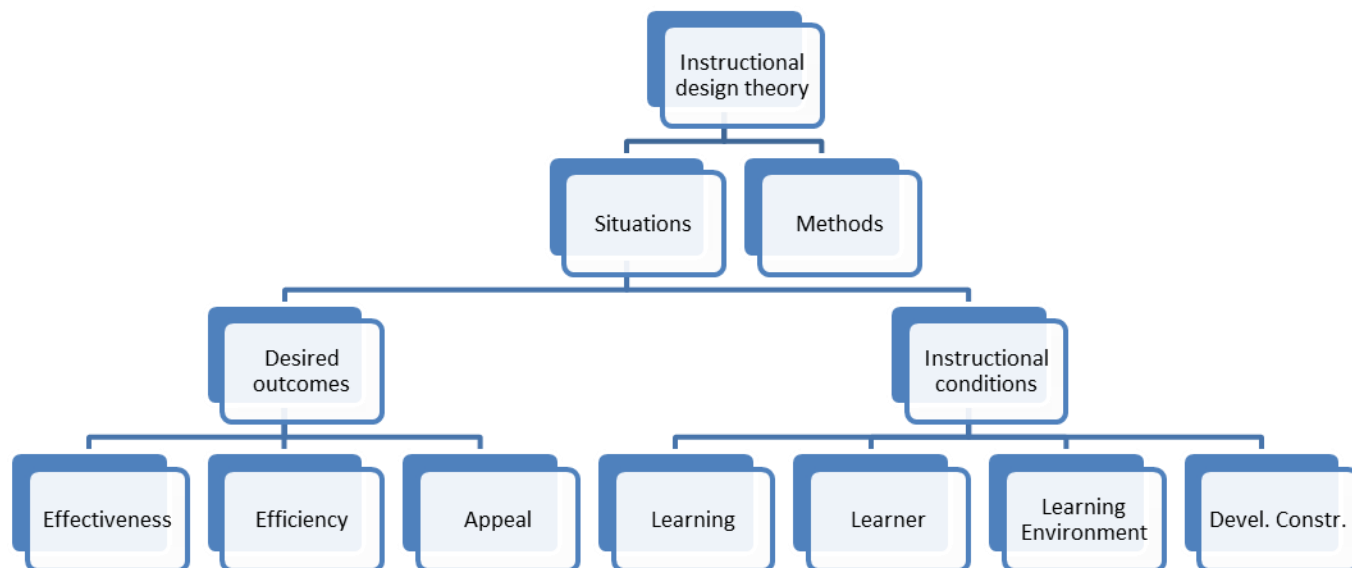
resemblance between skills and competencies; he suggests that these are often developed within the various subject courses. This will allow for an understanding of whether the system is contributing towards the development and growth of the economy through its delivery means.

3.4 Instructional theory

Bruner (1966, pg 41) defines Instructional Theories as theories that are more aligned with “how one would teach that can be best learned with an intention of improving rather than describing learning”. He argued that an instructional theory focuses on the means of attaining selected educational goals. According to Snelbecker (1974), Bruner’s (1966) definition “identified instruction as an effort to facilitate intellectual growth, development or learning by diverse means” (pg 419). Snelbecker (1974, pg 116) defines this theory as an “integrated set of principles which prescribe guidelines for arranging conditions to achieve educational objectives.” He argues that the emergence of instructional theories “represents a comparatively recent development in the relationship between learning theory and educational practice” (pg 16). According to Snelbecker’s argument, instructional theories should be able to provide a systematic planning towards instruction and prevailing means towards the attainment of educational objectives.

According to Reigeluth (1999) an instructional theory is “a theory that offers explicit guidance on how to better help people learn and develop” (pg 5). According to Jorgensen (2005, pg 2) the purpose of this theory was to provide a direction in helping people learn and promote efficient and effective instruction. According to Ornstein and Hunkins (1993, pg 198), pioneers in the educational pedagogical principles of the eighteenth and nineteenth century had always expressed that content must not only be a concern in the curriculum but that the delivery methods of it need also to be examined within the curriculum. The core essence of instructional theories has been to focus on how to structure material for the promotion of the education of human beings. Reigeluth (1999) in his explanation of the instructional theory provides components and or conditions that make up the theory as shown in figure 1.

Figure 1



Source: Reigeluth cited in Reigeluth (1999, pg 9)

Reigeluth and Carr-Chellman (2009) working from Reigeluth's (1999) definition further expound on this definition and provide principles that are formed as a result of this model. This study has adopted Reigeluth's (1999) and Reigeluth and Carr-Chellman's (2009) working definition and principles for an instructional theory. As the latter provides complementary work on the former author's work. This makes the theory well balanced and contextually relevant as it provides factors that must be considered for the theory to be explored. The instructional theory that they have developed allows the researcher be able to investigate specific components that make up the theory as shown by figure 1. It allows the examination process that the study will undergo to be practical as there are two conditions that must be catered when using an instructional theory which will be discussed on the following sections of the study. Since the study explores the official methodological approach of the curriculum – instructional approach – this theory allows for the component of methods to be investigated as this is part of what makes the instructional theory.

3.5 Characteristics of the instructional theory

The underpinning of an instructional theory, as argued by Reigeluth and Carr-Chellman (2009), is that it is concerned with the means of attaining the end outcomes, it focuses on exploring the 'how's' of the educational process. There has been a wide range of opinion between the learning and instructional process with there being an interrelationship between the learning theory and instructional theory (Snelbecker, 1974). There has also been an existing opinion of the interrelationship between the curriculum and the instruction, with other instructional theorists suggesting that the curriculum and instruction are intertwined (Snelbecker, 1974; Ornstein and Hunkins, 1993; Taba, 1962).

According to Reigeluth (1996, pg 6) all instructional theories have common major characteristics.

1. *Design-orientated*: the instructional theory focuses on the means to attain given goals for learning or development. This is the characteristic that should be able to assist curriculum designers and educators in providing the direct guidance on how to achieve Learning Outcomes.
2. *Components of instruction*: there are two components that an instructional theory identifies, these being the methods of instruction – the ways that facilitate the learning, and situations in which the methods are being used.
3. *Detailed component methods*: that the methods those are used to provide adequate guidance when implemented and also provide guidance to educators. According to Reigeluth who quotes Perkins (1992), it is suggested that this should include:
 - Identification of goals for the students;
 - Monitoring and signalling processes toward the goals;
 - Demonstration; and
 - Legitimizing a new concept or procedure by means of principles the students already know.

(Perkins, 1992, pg 53-54)

4. *Nature of methods*: the instructional theory emphasizes that the nature of the learning means are probabilistic rather than deterministic. They are designed more to increase the learners' chances of attaining the outcome rather than ensuring that outcomes are attained.

According to Snelbecker (1974), four major features outline the scope of a theory of instruction. He argues firstly that the theory should foster a favourable predisposition towards learning and towards the achievement of the educational goal. Secondly, the theory should indicate how to structure the actual body of knowledge so that the student can be ready to learn and be able to apply it (pg 419). Snelbecker argues that in this sense, the theory must be able to show how to present the actual new knowledge so that the learner can incorporate it within their existing personal knowledge. Thirdly, the theory should be able to identify relevant factors that are of influence, particularly within the learning process and provide indication of various possible consequences. Fourthly, the nature of rewards and punishment that the instruction entails should be identified so as to facilitate a meaningful school learning experience (Snelbecker, 1974, pg 419-420).

3.6 Discussion of the characteristics

Reigeluth (1999) argues that the design orientation of an instructional theory is an important characteristic. He argues that this is what makes an instructional theory distinct from other theories which are descriptive in nature. An instructional theory is design-orientated, which makes it prescriptive in nature; this means that its nature is to offer guidelines as to what method(s) are to be used in best attaining a given goal or outcome. Reigeluth points out that the prescriptive nature is not in the sense of spelling out in great detail exactly what must be done and with allowance of variation but it should provide good methods for accomplishing goals and assisting in the creation of something (Reigeluth, 1999; Reigeluth and Carr-Chellman, 2009). According to Reigeluth, this characteristic of the theory allows it to examine and investigate if the methods that have been employed attain the given goals in the situation

better than any other method which can be used. So the essence of the theory practically, it is to know which methods are being used and when to use them.

According to Jorgensen (2005), Reigeluth (1999) and Reigeluth and Carr-Chellman (2009), an instructional theory identifies major preconditions in it. Jorgensen (2005) identifies the instructional content, context and administrative constraints as the major preconditions for the theory (pg 2). Whilst Reigeluth (1999) categorizes the conditions into two: instructional method and instructional situation. Reigeluth (1999) uses a figure to illustrate these components as shown in figure 1 (see page 43).

The diagram (figure 1) provides a model of understanding of the underpinnings of the instructional theory. According to Reigeluth (1999) and Reigeluth and Carr-Chellman (2009), an instructional theory identifies methods of instruction and the situation in which those methods would or would not be used. An instructional method is anything that is done purposely to facilitate the actual learning process or human development. This is the component of the theory where the instructor would use a variety of methods to be able to meet the needs of different learning styles in the classroom or learning environment (Jorgensen, 2005; Reigeluth, 1999; Reigeluth and Carr-Chellman, 2009).

According to Reigeluth (1999, pg 6) instructional methods “support and facilitate learning”. Reigeluth argues that methods of instruction are probabilistic in nature. Arguably this means that instructional methods which may be employed in the learning process do not always guarantee that the desired instructional and learning outcome is going to be attained. The ‘probability’ nature simply provides an understanding that the instructional methods employed will increase the level or chances of the attainment of the desired outcomes. This is due to noting many existing factors that influence how well a method of instruction works. According to Reigeluth (1999), a method of instruction should be able to attain “the highest possible probability of the desired result” (pg 11).

According to Jorgensen (2005) an instructional approach should have 4 aspects to it:

- To gain learner's attention: the instructor should be able to use instructional methods that appeal to the learners' interests. According to Jorgensen there should be introductory activities that prepare learners for the instructional content. These should be activities that will gain learners' attention and be instructionally relevant to the learners'.
- To present information: the instructor should present the goals to the learners so that the learners understand the goal of the instruction. According to Jorgensen the instructional process must allow demonstration of the content and for it to be applied. Jorgensen argues that learners and the instructor should have some prerequisite knowledge for instructional content and the instructor should stimulate this within the learners'. The instructional approach should foster more of an understanding towards the learners. The instructional approach should allow the learners to be involved in the decision-making process about how to learn the instructional content so as to 'own' the instructional process.
- To provide practice materials: the instructor should encourage participation in the learning experience and create ways for the learners to participate.
- To provide feedback: the instructional approach should provide informative feedback to the learners. The instructor should allow the learners to explore the instructional content and offer encouragement and rewards for incorrect and correct answers, respectively.

As shown in figure 1 (see page 43), the instructional situation has two key aspects, namely: the conditions under which the instruction will take place and the desired outcomes of the instruction. The conditions of instruction are outlined by Reigeluth (1999) as including:

- The nature of what is to be learned (Learning)
- The nature of the learner (Learner)
- The nature of the learning environment (Learning Environment)
- The nature of the instructional development constraints (Development Constraint)

(Reigeluth, 1999, pg 8)

According to Reigeluth, all these conditions will influence the types of methods that have been used within the teaching and learning setting and the attainment of the desired outcomes.

The second aspect of the instructional situation is the desired outcomes, which Reigeluth argues as being different to the learning goals. From the context of the nature of the content which is taught, desired instructional outcomes is the level of *effectiveness*, *efficiency* and *appeal* that comes or is needed from the instruction of the content. Reigeluth (1999, pg 9-10) explains it as follows:

- Level of effectiveness is a matter of how well the instruction works, as indicated by how well (to what degree of proficiency) the learning goals are attained. The desired instructional outcomes are not concerned with what the learning goals are, but with how well they are achieved.
- Level of efficiency is the level of effectiveness of the instruction divided by the time and/ or cost of the instruction.
- Level of appeal is the extent to which the learner enjoys the instruction.

Whether utilizing one aspect of the instructional theory or both, each aspect entails its own set of conditions with some degree of results and or consequences of each aspect.

3.7 Classification of instructional methods

Table 4 below includes a framework for the classification of instructional methods, according to Reigeluth (1999).

Table 4: Classification of Instructional Methods

Method	Description
Case study	A type of simulation aimed at giving learners experience in the sort of decision making required later
Debate	A formally structured discussion with two teams arguing opposing sides of a topic
Demonstration	A carefully prepared presentation that shows how to perform an act or use a procedure; accompanied by appropriate oral and visual explanations and illustrations; frequently accompanied by questions
Field trip	A carefully planned educational tour in which a group visits an object of interest for first-hand observation or study.
Group discussion, free and open	A free group discussion of a topic selected by the teacher, who acts the chairman; learning occurs only through the interchange among group members
Group discussion, guided	A purposeful conversation and deliberation about a topic of mutual interest among 6-20 participants under the guidance of a leader
Lecture	A carefully prepared oral presentation of a subject by a qualified person
Project	An organized task performance or problem solving activity
Team project	A small group of learners working cooperatively to perform a task or solve a problem
Simulation	An abstraction or simplification of some specific real-life situation, process, or task
Role play	A dramatized case study; a spontaneous portrayal (acting out) of a situation, condition, or circumstance by elected members of a learning group
Lecture, guided discovery	A group learning strategy in which the audience responds to questions posed by the instructor selected to guide them toward discovery (also called recitation class)

Taken from some methods from Reigeluth (1999, pg 22)

3.8 Approaches to instruction

There are various curriculum approaches to instruction, according to Reigeluth and Carr-Chellman (2009), with each entailing the methods that would be found in them or utilized the most. These various approaches tend to overlap.

3.8.1 Direct instruction

This form of approach has its roots in and from the classroom – it stems mostly from classroom practice according Huitt et al. (2009). This is where classroom academic tasks are assigned by the instructor and involve standardized tests. This approach is mostly formal, with the instructor mainly presenting information to the learners in form of lecture or speech.

3.8.2 Discussion

According to Gibson (2009) this approach has a shared a responsibility for teaching and learning. The nature of this approach is inclusive and participatory and appreciates the various voices, experiences and views. Gibson argues that this approach allows for democratic participation; the learners are able to develop critical thinking and problem-solving skills and gain knowledge through team work. This instructional approach, as argued by Gibson, is best suited to learning situations where there is an in-depth exploration of topics and where the learners' diverse perspectives and ideas are valued and appreciated. Instructional methods such as group and class discussion, and team work are the most frequent methods to fall under this approach. The instructor must be well-versed in content and information when it comes to this approach.

3.8.3 Experimental

This approach, as argued by Lindsey and Berger (2009), emphasizes that learning takes place through the actual experience of the subject matter. Jackson and MacIsaac (1994) argue that this approach normally focuses on learning experiences that are authentic. According to them, these are the necessary basis for a meaningful skill acquisition and the basis for human development. By the term 'authentic', Lindsey and Berger (2009) argue that this means that the activities that would be done by the learners, who would be presented with "the same type of cognitive challenges as those in the real world" (pg 121). This type of instructional approach allows the learners to learn by making their own decisions and be provided with the necessary feedback.

The assessment criterion is mostly based on expected behaviour. Instructional methods that would mostly be utilized under this approach would be: in service training; invitation of guest speakers; live case study; role plays; study projects; simulations; internships; class discussion; reflective journals; digital stories; field studies; action learning projects; demonstrations and apprenticeships.

3.8.4 Problem Based

According to Savery (2009), problem based instructional approach is rooted in experience based education. According to Savery (2009) this “type of instruction focuses on the learner finding solution/s to complex problems that may not necessarily have only one answer” (pg 144). A problem is presented to the learner, the learner would then be allowed to engage with the problem, generate various ideas around the problem and then raise possible solutions to it. In many cases, as argued by Savery (2009), this nature of instruction requires the learner to conduct research so as to acquire the knowledge and skills needed to develop practical and viable solutions to the presented problem. Savery and Duffy (1995) argue that this approach should allow the learners to gather the necessary information and reflect on it in relation to addressing the problem. This will then allow the learners to reflect on their problem-solving process, through the guidance of the instructor.

Savery (2009) provides four main principles of this instruction that will guide the form of methods that will be utilized:

- The problems that are selected must be authentic and fit within the curriculum. The Learning Outcomes should be holistic and allow the learners to take various perspectives concerning the work. The problems that are selected for the instructional process should mirror the professional practice so that the learners can get maximum exposure to the professional field and its existing dynamics. Thus, the problem that the learners would be given should be contemporary and relevant to the scope of study.
- The instructor must support the learners’ meta-cognitive processing skills and problem solving ability. The instructor must develop means of probing the depth of the learners’ knowledge. The instructor must make sure that all learners all participate and articulate their understanding of the problem and proposed solutions. At times, the instructor should strategically divide learners into groups, taking their diverse strengths into account, so that they can equip each other.

- There must be authentic assessment practices so as to validate the learning goals. Assessment must take place at the end of the problem-solving cycle where the learners present their proposed solutions.
- There must be consistent and thorough debriefing activities to consolidate key concepts within the content and learning experience. The instructor should allow the learners an opportunity for feedback so that the learners can recognize and consolidate their understanding with what was expected of them (Savery, 2009 pg 150).

3.9 Conclusion

The two theoretical underpinnings of the research are the human capital and instructional theory; with the latter being the more utilized theory for the basis of data collection and analysis. The reason behind this is that the instructional theory explores the two components of instruction, with the instructional approach being one component that is relevant for investigation by this study. The in-depth analysis of methods and approaches by the instructional theory allows the study to understand which methods and approaches are to be used for which particular context and content and the nature of skills that are being promoted in the process. This study is exploring the instructional approach of the NCV curriculum and how that contributes to the promotion of employability skills – which in the longer run links to the employability of students within the economy. Hence these two theories underpin this research.

Chapter 4

Methodology

4.1 Introduction

As revealed in the previous sections of the study, according to Reigeluth (1999) the instructional process encompasses two conditions in it: methods and context (refer to figure 1). So any form of examination and investigation that maybe underpinned by the philosophy of this framework (that is the instructional theory) will take into account either one of the conditions or both of them depending on the desired outcome. From these conditions various angles of research can be developed, amongst others being: an investigation of the said or written instructional methods may be examined; factors that influence the various usages of instructional methods within contexts maybe investigated; the alignment of what is planned to be done and with that which is done can be assessed. These instructional conditions they open up a gamut of options.

The strengthening and reviewing of the National Certificate Vocational should ideally by in large start from the official level. The rationale behind that would be to investigate if national policy through the curriculum has an objective in promoting employability skills. This then took the study to assess one of the two conditions presented by the theory as its point of examination. The study was examining methods as a condition from the instructional theory. It was noted though that the instructional methods from a curricula angle have two aspects to them: 1) what is planned to be used, 2) what actually gets used.

4.2 Approach

The intention of this study was to examine the official designed instructional approach of the curriculum. The objectives being: to identify the existence of employability skills and how they are being promoted through the curricula from an official lens. The key focus of the study was based on the instructional methods that are found within the curricula documents.

As described in the introduction of this chapter, the condition of the instructional methods had two aspects that were of consideration from an instructional perspective: what was planned within the curricula and what actually gets implemented. This presented the study with two angles in which it could implement its investigation as a result of the focus being on the instructional methods. The one angle was to examine the official curricula's instructional approach(s) and planned instructional methods through the documented curriculum outcomes that are planned to be achieved – the instructional organizational planning of the curriculum. The other angle was to investigate the instructional approaches and instructional methods that were being utilized by the instructors within their contexts – the instructional implementation of the curriculum.

Though the interest of policy has in heart how things were to be done but it was more founded upon 'planning' or how things 'should' be done ideally. And this was why the angle as its point of investigation opted for the instructional organizational planning of the curriculum. The intention was to examine what has been designed and formulated by the official curriculum.

The introduction of the National Certificate Vocational was primarily to establish an employability based curriculum that would provide learners with the necessary skills to meet the demands of the sector or economy (DoE, 2006). This curriculum affects all of the South African public colleges, so any study being done on the National Certificate Vocational would provide a general perspective of the curriculums within Further Education and Training public colleges. This meant, that a study conducted in a particular curriculum of a particular subject or field would hold basis in another college, *ceterius paribus*, due to the curriculum being implemented nationally. With the consideration of resources, time and feasibility the approach that this research adopted was a case-study design, with it being an instrumental case study specifically. "An instrumental case study is a case study conducted to provide insight into an issue or to develop, refine, or alter some theoretical explanation. It was undertaken to understand something more general than just the particular case" (Christensen et al. 2011, 374).

According to Christensen, Johnson and Turner (2011, pg 374) a case study was a “qualitative research method in which the researcher provides a detailed description and account of one or more cases”. Fox and Bayat (2007) define it as a qualitative design research methodology; this would be a detailed description which would be intensive in nature. The intention of this approach allows the researcher to examine or investigate one or more cases whilst the results could provide a generic conclusion (Christensen et al. 2011; Fox and Bayat 2007). The reason why it was termed a ‘case’ was due to the reason that the study takes place within a system that was bound, such as a person, a group, an organization, a process or event (Christensen et al., 2011; Fox and Bayat, 2007). In this case the study focused on specific curriculum and information being sourced from a particular college. The approach for a qualitative methodology of an instrumental case study, was adopted as a result of the study of employability of a curriculum was of interest to the researcher, due to its relevance and it being a current discourse within the field of South African educational policy makers. This was seen in the development of the new Further Education and Training curriculum – National Certificate Vocational – which was introduced in 2007 amidst concerns that there was a lack of relevant and responsive curricula to the needs of the economy (DoE, 2006).

Instrumental case study allowed the researcher to be in one place and or research site to conduct the research without having to go to other research sites for gathering of data. Hence the approach of an instrumental case study was better suited for this research, as examining all the colleges within South Africa that offer this program would be impractical and non-feasible. The study of the National Certificate Vocational curriculum program that was offered in a college was a productive method to allow the study to take the form of a case-design approach.

The research integrated both qualitative and quantitative approaches within its investigation. The reason for the latter (quantitative) was that the study required that there be counting of identified employability skills within the various Outcomes and levels of the vocational subjects to provide an analysis between the different Critical, Learning and Subject Outcomes found within the curriculum. There needed to be a measurable evidence not only of the existence of the employability skills but their numerical application within the Outcomes and levels of each

vocational subject. The numerical value of the employability skills allowed the researcher to identify which skills were going to be dominant within the aspect of the curriculum and this would guide the nature of instructional approach that would need to be implemented to match the skill that would be enhanced. The quantitative approach provided the research with an insight of which skill(s) was more and less dominantly identified within the curriculum. It was through this approach that the research was able to assess and make interpretations whether the skills identified in the Outcomes and those within the instructional methods were in alignment. The quantitative approach allowed the research to identify which skill was being enhanced the most in which subject and instructional method.

The qualitative aspect of the research allowed for in-depth analysis and review of official curriculum documents that were to be used by colleges. This approach allowed the researcher to understand the department of higher education policy position regarding the college's instructional processes that was required to be implemented within the instructional context.

4.3 Setting

The research was conducted using a particular campus as a research site, one of the many campuses of this college. The college existed in KwaZulu-Natal and the campus that was used to conduct the study was located in one of the rural townships found in the province of KwaZulu-Natal. According to the vision of the college, it 'strives to be an independent Further Education and Training College' that provides meaningful education and training to the community in general and society at large. The college aims to offer programs that are relevant and custom built to the needs of the learners and industry. The vision of the college was a response to the call by the Ministry of Higher Education and Training, that college courses must encourage careers that are essential to economic growth and development (DoE, 2008; DHET, 2012).

Another educational goal of the college was to provide an FET Vocational programme that will equip the recipient (in this case the learner) with a successful career in an industry. The program would equip the learner with practical skills, experience and knowledge. According to the prospectus of the college, alongside other South African public colleges, the college pursues

to play a catalytic role in the economic empowerment of people by providing relevant education and training for the learners that it serves.

The study relied upon curriculum documents that were sourced from the DHET, Council of Higher Education (CHE) and South African Qualifications Authority (SAQA) websites and other curriculum documents that were found within the campus where the researcher was located.

4.4 Data collection tools

The data collection included

- a) Employability skills framework - was developed using a sourced Australian Employability Framework. This framework was used to locate various employability skills across:
 - A. Each Subject Outcome from each topic taken from the subject guidelines. (Annexure C)
 - B. Each Learning Outcome from each Subject Outcome taken from the subject guidelines. (Annexure C)

Employability framework (Annexure C) was a necessary framework since it provided the researcher with the foundation of knowledge to developing contextual and relevant frameworks for the research. It was necessary that employability skills be identified across the Subject and Learning Outcomes for each level of every vocational subject. Alignment and comparisons between the Subject and Learning outcomes of the various levels was achieved through investigation on these Outcomes.

- b) Document analysis of the Finance, Economics and Accounting NCV curricula from entry level (Level 2) to the exit level of the curriculum (Level 4):
 - A. Subject guidelines of the curricula.
 - B. Assessment guidelines of the curricula.

In order to gain better understanding of the curriculum, the various employability skills found within the Outcomes and the nature of the instructional approach, it was necessary that the researcher implement an analysis and investigate these documents (Subject and Assessment

guidelines). This was where the official curriculum concerning the instructional approach was going to be identified and examined.

4.5 Employability Skill Frameworks checklist

It was crucial that the researcher was able to develop some checklists or utilize some available existing frameworks when identifying and examining employability skills. The study needed to examine the various actions that the official side of the curriculum required of the learners. There thus needed to be a tool that would provide the ability to identify the various actions that promoted employability skills. At the initial stages when the texts were being examined within the subject guidelines, there were many times where the researcher had to make assumptions and use interpretation in identifying employability skills within the subject guidelines. There was no clear frame that was able to be used in identifying the employability skills that were fostered by the various actions required of the learner. This led to many inconsistencies when identifying the potential employability skills and created a lack of coherent progression in the data collection.

The need was then to find a tool that would provide the researcher with consistency and commonality, as it would be able to be used elsewhere. An existing Australian employability framework was made use of, which provided checklists and tools that were useful in being able to identify possible and potential employability skills within a curriculum. The study adopted as part of the tools in the collection of data, the employability skill framework checklists that were developed by Precision Consultancy in Australia. The checklists that were developed by the Consultancy were resources used and provided for Trainers, Assessors and Developers who were interested in employability skills and intending to acquire the most effective ways to structure them in various training manuals and curricula's (DEST, 2006). Further checklists were then developed, primarily working on the basis of the Australian checklists, with other items relevant to various instructional components being included.

There were two frameworks that were used by the study to identify and examine employability skills.

1. A framework (Annexure C) taken from the Australian framework was used on the Subject and Learning Outcomes from the subject guidelines in identifying employability skills from the required actions of the learners. The researcher then developed a framework by attaching different alphabets that connect the various actions to the employability skill as seen in Framework 1.
2. A framework (Annexure D) taken from the Australian framework was used in identifying the various employability skills found in the different instructional methods. This framework would aid in examining the nature of employability skills identified in the instructional methods that were used in the assessment tasks. This framework was further developed so as to provide consistency throughout the research. Key terms that were used throughout the research were attached within this framework so as to connect the term with the method as seen in Framework 2.

4.6 Subject guidelines

The Subject guidelines were a critical piece of document in guiding the lecturer in implementing the curriculum. There was a section in the Subject guidelines that provides the basis of what the intention of the learning should be and what specific outcomes of learning should take place for each subject. The Subject guideline contained details of each topic found in the subject, what the Subject Outcomes for each topic should be and the Learning Outcomes for each Subject Outcome. It provided what the specific Outcomes should be for the topic and what should be achieved by the learner from the subject and/or what the learning process should provide for the learner. This document also contained the Critical Development Outcomes for the subject.

For the research, a developed subject guideline employability template (Template 1) and the employability skill framework were used (Framework 1). Each Subject Outcome was examined under each topic and the possible and potential employability skill(s) that were embedded in the actions required of the learners, as stated by the Subject Outcome, were identified. The Subject Outcome for the researcher would provide an overall view of the nature of employability skills that would be covered or embedded as a result of the learning of that

subject. Each Learning Outcome was examined in the context of each Subject Outcome, after which the term that required action of the learner from the Learning Outcome was examined and the term was matched with how the framework defined the embedded employability skill. The method employed by the researcher was to look at the key term or word that was required or asked of the learners' action and then match that term or word with a word within the framework, thereafter locating the type of employability skill potentially located as a result of the term or word. The relevant information was then recorder on the various columns of the subject guideline employability skill template.

The subject guideline employability skill template (Template 1) was divided into 4 columns, each of which are discussed below:

1. This column contained the actual Learning Outcome as documented in the subject guidelines.
2. This column was used to examine which employability skill(s) were being promoted or were going to be promoted by the required action of the learner. This column would give an indication cumulatively with the other columns from other Learning Outcomes from the same Subject Outcome as to whether the employability skills found in Learning Outcomes altogether speak to the employability skills found and promoted in the Subject Outcomes. The analysis from this would be very crucial for the study as to assess whether the Learning Outcomes which should ideally be promoting what the Subject Outcome intends to achieve are really meeting that intention. As a by-product of this, a template was developed where a quantitative analysis was able to be attached of how many employability skills were found cumulatively in each of the learning outcomes of each topic in each subject. Another template was further developed to allow for a quantitative approach in analysing how many potential cumulative employability skills were found from each topic from the subject outcomes. The intention of this was to assess whether there was a clear correlation between the potential employability skill(s) found in from the Subject Outcomes and those potential employability skill(s) found

from the Learning Outcomes. The quantitative aspect would be an effective means in being able to draw up the analysis of the correlation.

3. This column examined which instructional method was being explicitly stated to be used to achieve the Learning Outcome.
4. This column was for the Learning Outcome being described for the learner to demonstrate or do. The key word or term that was identified in asking what was required of the learner was recorded in this column. This term was critical to note because this was where and how the potential employability skills would be practically demonstrated by the learner. These terms were useful in unpacking which employability skills were potentially embedded in the required action or that which is promoted. This aspect of the column would be critical for the researcher to note as it provided the means for the potential employability skills to be unpacked.

4.7 Employability key term(s) framework

As a result of continuously matching the word that required the learner to do something in line with an employability skill(s) being fostered, this then consequently resulted in the formation of a tool (Framework 3) that would be used to classify which term(s) promoted which particular potential employability skill(s). There was a need to ensure consistency and minimize the researcher's personal interpretation and understanding concerning the identification of employability skills through the key action terms. The terms were then tabled under each employability skill which they would possibly and potentially foster using the Australian framework. This approach then assisted in the collection of data as it provided a more consistent, valid and standard approach across the analysis of outcomes through all the subject guidelines.

There was a standard approach throughout the outcomes when identifying the employability skills, the researcher would narrow his focus on what the learner was to do and how they would do that. The specific focus was on the action of the learner as it was in and through this action that the employability skilled would be imparted. The researcher had to identify a term that would emphasize the action that would be done by the learner. By definition, the term

‘outcomes’ was defined as the results of the learning process and referred to what the learner knows and can do (SAQA, 2000). This framework was instrumental in the research process as it was used in identifying employability skills within the activities found in the guidelines that required learner action.

4.8 Assessment guidelines

The assessment guidelines assist the lecturer in knowing the different assessment methods employed in the collecting of learners’ knowledge. This was the ‘document that provided the instructor with guidelines to develop and implement a coherent, integrated assessment system’ for each subject (DoE, 2007 pg 2) These guidelines provide, amongst other things, the different instructional methods that were needed to be employed for each outcome, or a group of Learning Outcomes, within the Subject Outcome, depending on the vocational subject. This was the document in which the instructor would use alongside the Subject Guideline as per directive of the policy. The Assessment Guidelines for each subject, section 9 in the guidelines categorized the various instructional instruments in which the instructor could utilize from as shown by the table below taken from the Assessment Guideline of Level 2 Applied Accounting.

Table 5: Methods for collecting evidence

	METHODS FOR COLLECTING EVIDENCE		
	Observation-based (Less structured)	Task-based (Structured)	Test-based (More structured)
Assessment instruments	<ul style="list-style-type: none"> • Observation • Class questions • Lecturer, student discussions 	<ul style="list-style-type: none"> • Assignments or tasks • Projects • Investigations or research • Case studies • Practical exercises • Demonstrations • Role-play • Interviews 	<ul style="list-style-type: none"> • Examinations • Class tests • Practical examinations • Oral tests • Open-book tests

Table 5: Methods for collecting evidence as cited from Applied Accounting Level 2 Assessment Guideline (DoE, 2007 pg 6)

This guideline segments the different phases of assessment and ways of collecting the different evidence produced by the learner result.

The group of Learning Outcomes and the employability skills(s) being fostered were examined within the subject guidelines beforehand. This aspect of investigation examined the instructional methods which were recommended or planned to be used for the group of those Learning Outcomes. Using the Australian framework for the instructional methods, it would indicate which instructional methods should be promoting which employability skill(s).

An assessment guideline had a section where it would provide details on which instructional methods –called Assessment Tasks or Activities in the textbook - should cover specific Learning Outcomes of the specific Subject Outcome. For the NCV curriculum, every topic has Subject Outcomes and every Subject Outcome has Learning Outcomes.

In this case, a template was developed (Template 2) which was divided into four columns, each of which is discussed below:

1. This column was designed to specify which topic from the vocational subject was being examined in the study.
2. This column specified which outcome was being studied.
3. This column specified which instructional methods were being employed for the specific Subject Outcome under the topic.
4. This column identified employability skills that would ideally be fostered by the instructional methods. This column was crucial in being able to assist in identifying the alignment between outcomes and how they were achieved through the various instructional methods.

After this part of the study was completed, this examination aspect of the study assisted the researcher in trying to identify the instructional nature of the curriculum, as the type of methods that were to be used reflect the instructional approach of the curriculum. So all the methods that were recommended, were counted to see how many times they appeared within the tasks, subjects and curriculum in general. This provided an indication the instructional nature of the curriculum. According to Ornstein and Hunkins (1993), the approach of a curriculum reflects its design and it will be evident in the role of the learner, the instructor (educator in this sense) and goals and objectives of the curriculum. Thus, the nature of the

curriculum will dictate the type of instruction(s) necessary to pursue those educational goals and objectives. So a template was formulated to capture all the different instructional methods that were found within the curriculum within the various topics and their accumulated value (see Template 3).

The analysis behind the subject guidelines and assessment guidelines was that as this research was framed by an instructional design theory, the curriculum and instruction or teaching from instruction should not be separated (Ornstein and Hunkins, 1993). The instructor largely relies on these two documents to set up their methods of instruction. According to Oliva (1992) curriculum and instruction were two entities, the curriculum informs the nature of the instruction and the instruction will impact on the delivery of the curriculum. This part of the study was needed to be investigated so as to assess from an official perspective whether the design of the curriculum does somehow inform the instructional methods that get used and whether the instructional methods do indeed deliver the intentions of the curriculum. One of the main questions which this study seeks to answer was, through the examination of the instructional methods was whether they do promote employability skills within the curriculum and whether they do correlate with the curriculum design.

4.9 Sample Analysis of Subject Guideline

Due to the excessive amount of data that was collected, Applied Accounting level 2 was used an example to demonstrate how the data was collected and analysed in order to identify the potential employability skills from both the Subject and Learning Outcomes using the frameworks.

Under each Subject and Learning Outcome there was a required action that the learner needed to do, which, as indicated earlier in the study, was where the employability skill was being investigated. Table 6 below, is an example of the Applied Accounting level 2 subject outcome 1 of Topic 1 and shows how the potential employability skills were identified and observed.

Subject: Applied Accounting level 2

Topic 1: Basic Accounting Concepts

Key term(s): Key skill(s):

Subject Outcome 1: Identify and describe the different types of businesses

Key Outcome term(s): Identify, describe – **Key skill(s):** Communication (1: B, C, E, J); Problem solving (3: C); Initiative and enterprise (4: B); Planning and organizing (5: B); Self-management (6: B; D)

<u>Learning Outcome</u>	<u>Employability skill(s) promoted</u>	<u>Instructional method</u>	<u>Instructional approach</u>	<u>Instructional component</u>
Explain the gaining of capital to start a new business venture	Communication (1: B, C, E) Self-management (6: B, D) <ul style="list-style-type: none">• Explain	Not stated	Student required to explain	Not stated
Explain the profit motive for a business	Communication (1: B, C, E) Self-management (6: B, D) <ul style="list-style-type: none">• Explain	Not stated	Student required to explain	Not stated
Identify and discuss different types of business	Communication (1: A, B, C, E, J) Problem solving (3: C) Initiative and enterprise (4: B, D) Planning and organizing (5: B) Self-management (6: B, D) Learning (7: C) <ul style="list-style-type: none">• Identify• Discuss	Not stated	Student required to identify and discuss	Not stated
Describe the characteristics of different types of businesses	Communication (1: B, E, J) Planning and organizing (5: B) Self-management (6: D) <ul style="list-style-type: none">• Describe	Not stated	Student required to describe	Not stated

Table 6: Sample Analysis of Identified Employability Skills

Table 6 was an example of how the Employability Skill Framework (Framework 1), Employability Skills Key Term Framework (Framework 3) and the Subject Guideline Employability Skill Template (Template 1) were employed and utilized by the researcher, to show how the employability skills were being identified from the subject guidelines. As reflected in the previous chapter, each Outcome was a specific action that required the learner to act upon or

to demonstrate. The examination was conducted by focusing on the key term that required the learner's action. This was where the employability skill was identified, as this was the actual term where it demonstrated the learner action or what the learner where to do. According to SAQA (2000) the key focus of the 'Outcomes' was to demonstrate the learning process of the learner and what they do through the process.

In the case of Applied Accounting level 2, Topic 1, the Subject Outcome 1 required the learner to "Identify and describe the different types of businesses." So "identify" and "describe" were the key terms where the learner action lay; this was where the employability skill(s) were either embedded or could be fostered. The terms "identify" and "describe" were then matched against the 'Employability Skills framework' (Framework 1) that was used by the study in identifying the skills within the various terms used. Communication, Problem-solving, Initiative and Enterprise, Planning and Organizing and Self-Management were skills that were identified. Through the application of the frameworks, it was identified that these were the skills that were embedded in the relation to what was going to be acquired through the learner's action. The same approach was applied for the Subject Outcomes and the results are shown as indicated by Table 7.

Subject: Applied Accounting level 2

Topic 1: Basic Accounting Concepts

Subject outcome	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1.	•		•	•	•			•	
2.	•				•				
3.	•				•	•			
4.	•				•	•			

Table 7: Employability Skills within Subject Outcomes

The above table (Table 7) shows how many Subject Outcomes are under Topic 1 in Applied Accounting. The table shows that there are four Subject Outcomes in Topic 1, as reflected in the column of the heading 'Subject Outcome'. The table reveals which employability skills were

identified from each of the Subject Outcomes. Data collected from the subject guideline shows the focus of the Subject Outcome and which employability skills were mainly identified that are most likely to be fostered within that learning area. Communication and self-management were embedded in all Subject Outcomes whilst the Learning skill was identified twice in the Subject Outcomes and problem-solving, and planning and organizing were all identified once. Communication and Self-management employability skills were identified the most frequently from the Subject Outcomes of this topic.

Topic 1: Learning Outcomes

Subject Outcome	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total Outcomes
1	4		1	1	1	1		1	9
2	5		1	1	5			1	13
3	5			2	5	2		3	17
4	1				3	2			6
Total Outcomes	15		2	4	14	5		5	45

Table 8: Employability Skills within Learning Outcomes

Since the research further examined the alignment between the Subject and Learning Outcomes, the number of times the skills were identified within learning outcomes were examined accumulatively too. The examinations of the Learning Outcomes were equally critical for the comparing of skills that were being promoted by the instructional methods. Each Subject Outcome had a specific number of Learning Outcomes that were to be achieved - in other words each Subject Outcome under each topic had a number of Learning Outcomes under it. Depending on the topic, the number of these Learning Outcomes varied, ranging from two to five.

This table (Table 8) above revealed the number of times the employability skills were identified from the learning outcomes that were found under each subject outcome from a topic of that particular vocational subject, in this case being Applied Accounting level 2. As shown by table 8,

Topic 1 of Applied Accounting level 2 has four subject outcomes under it. The table shows under each subject outcome the number of employability skills that were identified in each subject outcome. It also reflects the accumulated number of employability skills in that topic and how many times each employability skill was identified in each subject outcome and within the entire topic cumulatively.

The table reveals that in subject outcome 1 of Applied Accounting level 2, in terms of employability skills: communication skills were identified four times, whilst initiative and enterprise, planning and organizing, self-management, learning and problem-solving skills were all identified once each. Cumulatively in Topic 1, communication skills were identified 15 times; initiative and enterprise skills identified twice, planning and organizing skills identified 4 times, self-management skills identified 14 times, learning skills identified 5 times and problem-solving skills 5 times. This illustrates a picture in which employability skills would ideally be fostered and embedded by the learning process from the topic. So this illustration of Topic 1 of Applied Accounting reveals that communication and self-management skills are the two most identified skills that are most likely to be promoted in Topic 1 by the learning outcomes.

Subject: Applied Accounting level 2

Subject Outcomes

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total subject outcomes
1	4		1	1	4	2		1	
2	3		2	3	4	3		3	
3	3			4	5	3		3	
4	3			4	5	3		3	
5	3		1	2	4	2		2	
Total subject outcomes	16		4	14	22	13		12	

Table 9: Employability Skills identified within Subject Outcomes of Topics

This table (Table 9) as depicted above illustrates the accumulated number of employability skills that were identified from the subject outcomes within each topic. This table then provides a picture of how many times the employability skills appear in the whole topic from the subject outcomes. This process was in line with trying to answer one of the sub-questions of the

research; whether the subject outcomes are aligned with learning outcomes from an employability angle and which employability skills were found to be appearing more frequently or were dominant.

The illustration of this table reveals the number of times that the employability skills were identified in the subject outcomes in Applied Accounting level 2, from Topic 1 to Topic 5. Communication skills was identified 16 times, initiative and enterprise 4 times, planning and organizing 14 times, self-management 22 times, learning 13 times and problem-solving 12 times. From this table, it is revealed that self-management is the dominant employability skill that could be ideally fostered by the subjects and that the learning outcomes must generally be aligned to the fostering of this skill.

Subject: **Applied Accounting level 2**

Learning outcomes

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total learning outcomes
1	15		2	4	14	5		5	
2	11		9	12	7	7		10	
3	9			6	12	11		9	
4	9			6	12	11		9	
5	8		2	9	8	11	2	5	
Total learning outcomes	52		13	37	53	45	2	38	

Table 10: Employability Skills identified within Learning Outcomes of Topics

This table (Table 10) provides an illustration of how many times each of the employability skills were identified in the learning outcomes of the subject Applied Accounting level 2. This table takes a similar shape to that of the previous table in terms of the cumulated employability skills from the subject outcomes within the vocational subject. This time, however, the analysis was to examine the learning outcomes. This provided an analysis of which skills were dominant in the learning process and according to the table; self-management and communication skills were identified as the potential dominant skills from the learning outcomes, followed by the Learning employability skill.

This analysis reveals a finding that there is an alignment between what the subject outcomes of Applied Accounting level 2 generally foster to what should be learned within the learning process of the subject. From the learning outcomes there is a strong emphasis on self-management and communication skills whilst from the subject outcomes there is a stronger emphasis on self-management skills. This simply means, from the view of subject outcomes and learning outcomes of the subject that the emphasis will be more on the learners taking responsibility for their own performance and being able to know what they need to do, as well as being able to have a clear understanding what the work requires of them. According to the 'Employability Skill framework', this employability skill of self-management, "refers to an individual's ability to manage themselves in relation to the outcomes expected of their work role" (DEST, 2006, pg 24). Simply put, the learners will need to have a thorough understanding of what is expected of them and will need to manage their work in line with that expectation. It means that the instructional approach towards the Applied Accounting level 2 will need to be learner-centred and promote more self-management skills in the learner.

Using the illustration of the Applied Accounting level 2, the analysis of all the other subjects shall be shown in answering the study's sub-questions, as mentioned in the early parts of the chapter.

4.10 Sample Analysis of Assessment Guideline

For each Topic with its Subject Outcomes and the Learning Outcomes found under the Subject Outcome that were found within the Assessment Guidelines, there were particular assessment tasks and activities that were to be done in the achievement of those outcomes. Those activities and tasks contained the instructional methods in which the instructor would utilize in the pursuing of those outcomes. They provided, conceptually, foundation for an instructional process. Below was an example of Applied Accounting Level 2 Assessment Guideline structure of the outcomes and activities.

Topic 1: Basic Accounting Concepts

Subject Outcome	
Identify and describe different types of business	
ASSESSMENT STANDARDS	LEARNING OUTCOMES
<ul style="list-style-type: none"> The gaining of capital to start a new business (service or trade) is explained in detail The profit motive for a business (service or trade) is explained and demonstrated in detail Sole traders, partnerships, private and public companies, closed corporations, clubs and non-profit organizations are identified as types of business Characteristics of each type of business are described <i>Range: number of owners, statutory requirements, extent of liability of owners, ability to raise capital, profit and loss sharing.</i> 	<ul style="list-style-type: none"> Explain the gaining of capital to start a new business venture Explain the profit motive for a business Identify and discuss different types of businesses <i>Different types of businesses include sole trader, partnership, private and public companies, closed corporations, clubs and non-profit organizations</i>
ASSESSMENT TASKS OR ACTIVITIES	
<ul style="list-style-type: none"> Students investigate reasons why to create a new business venture (profit motive) by using a simulated example of a business. Students simulate the creation of a new business venture in groups by determining what is needed to start a business Students collect and identify practical examples of the types of business from the world known to them. Students classify the examples of different types of business according to their characteristics 	

Table 11: cited from Applied Accounting Assessment Guideline (pg 10)

As shown by table 11, the researcher then investigated the instructional methods that were included in the tasks and activities. From the table, the key instructional methods that were identified and documented by the guideline were: “simulated example”, “groups”, “practical examples”. These instructional methods were then matched against framework 2 to see which employability skills these methods were promoting as shown below by table 12

Portfolio of evidence and assessment guideline

Topic	Subject outcomes	Instructional method	Employability skill(s) promoted
1	1	<p>Simulated examples</p> <p>Group work</p> <p>Practical examples</p>	Problem-solving, initiative and enterprise, self-management, communication, team work

Table 12: Portfolio of evidence and assessment guideline for Applied Accounting

It happened that there were methods that seemed to develop or foster the same skills as based on the framework. What the research did was that if there was an overlapping of skills, it did

not re-write the skill within the column 'employability skills promoted'. For example Practical Exercises promoted amongst other skills Communication skills whilst Group work promoted Communication skills too. So on the last column where skills were identified, Communication was noted once as a skill that was being promoted within that set of outcomes.

Using template 3, the study then put the different instructional methods that were documented within the activities and tasks of all the topics within columns to identify how many times they were found within the different topics and levels as shown by table 13.

Applied Accounting Level 2

Topic	SE/SA	GW	PE	CS	Demo	C Tests	Stu Ex	CA	Qu St	Assign	Discu	R
1	4	2	2	2	2	1	1					
2	1		1		1	1	1					1
3	2		3		2		1					
4	2		2		2		1					
5		2	2		1	1	1		1	1		
Total	9	4	10	2	8	3	5	0	1	1		

Table 13: Accumulated sum of instructional methods

Table 13 showed the accumulated sum of instructional methods found within level 2 of Applied Accounting. This table showed which instructional methods were going to be utilized more and which level if the instructor followed the assessment guideline to perfection. From the table it was evident Practical Exercises, followed by Simulate Exercises/Activities and Demonstrations seemed to be more frequently recommended methods. This provided a picture of the nature of instructional approach for each level of each subject. This allowed the researcher, using the information from the template, to gather how many instructional methods were being recommended in each level of each subject. Table 14 reflected this

Table 14: Summary of Applied Accounting Instructional Methods

Level	SE/SA	GW	PE	CS	D	CT	St ex	CA	Assign	Dis	Techn	R
4		6	18			14		7	13	2	1	
3		4	18			15		3				
2	9	4	10	2	8	3	5		1			1
Total	9	14	46	2	8	32	5	10	14	2	1	1

From the information provided in table 14, Practical Exercises was the dominant instructional methods that were to be utilized within the vocational subject of Applied Accounting followed by Class tests. This provided a picture of the nature of instructional approach using this for each subject; the researcher gathered the instructional approach of the curriculum. The study further took the information as presented by table 14, then worked out the employability skills that were promoted by each of the skills. This gave an accumulated value altogether of employability skills that the subject was going to promote through the methods. So for example, since Simulated Exercises/Activities was found 9 times, it means the employability skills that were matched with this method would be fostered 9 times throughout the subject. The accumulated value of that would be added to the accumulated value of the skills of Group work. The accumulated value was shown by table 15.

Table 15: Applied Accounting Accumulated value of employability skills

Communication	Team work	Initiative and Enterprise	Planning and Organizing	Self-Management	Learning	Technology	Problem-solving
73	22	52	14	101	49		25

From the table it was evident that Self-Management skill was the dominant skill and going to be the most promoted skill by the instructional methods

The analysis of both the Subject and Assessment Guidelines, they provided the nature of employability skills that were going to be promoted by the curriculum, the nature of the instructional approach and the alignment between the curriculum outcomes and the instructional methods in respect to the skills that were to be promoted.

4.11 Validity

The instruments used in any form of research must be aligned towards correctness and show consistency (Goddard and Melville, 2001; Christense, Johnson and Turner, 2011). According to Peil (1982, pg 9) any form of data that is collected must be reliable and consistent. Peil (1982) argues that the instruments used can be considered reliable if the results are consistent. Christense et al. (2011) explain different strategies, using work that was based on Maxwell

(1992), that can be employed by researcher to ensure validity of the instruments used. One of the strategies which influenced this research, according to Christense et al. (2011) is called theoretical validity. It is defined as the “degree to which the theory or explanation fits the data” (pg 365). In this study, the researcher examined whether the employability outcomes in the study fitted with the instructional design of the curriculum. Theoretical validity provides four strategies to ensure that the validity of the study occurs, these being: fieldwork, theory triangulation, pattern matching and peer reviewing. These are briefly discussed in the following sections.

4.10 Fieldwork

Christense et al. (2011) explain this strategy as a period where the researcher should collect data in the field over a particular period of time. The intention for this is for the researcher to get to understand what is being studied. In regard to this dimension, the researcher was employed at one of the campuses of the College. This allowed for exposure to the subject and assessment guidelines, as well as the textbooks which are used by the instructors and the various instructional methods that can employed within the curriculum. This allowed for the researcher to become familiar with the subject and assessment guidelines and the degree of usage of these documents towards the instructional approach. Importantly, this was critical in the practical side of the theoretical framework of the study, as this provided a rich understanding of the context behind the various implemented instructional methods. It should be mentioned, however, that this had no part in the actual research component of the study; it merely provided an insight into the vocational context.

During the different stages of data collection, the researcher ensured that the relevant textbooks and guidelines were the correct ones that were being used in the vocational subjects being studied and were within the DHET syllabus. Care then had to be taken to make sure that the textbooks included the same subject topics as shown by the subject and assessment guidelines, so as to correctly examine the alignment of outcomes, as required by the research. Hence the frameworks that had been developed and which had been taken from the employability skill document were able to be applied across all these curriculum documents.

Various lecturers at the college were randomly consulted and it was confirmed that guidelines are very important for the instructional approach.

4.11 Theory triangulation

According to Christense et al. (2011), this dimension is where the researcher employs multiple theories or perspectives to aid in interpreting the data. For this study the employability skill document was used to provide various definitions and frameworks for terms that would assist in identifying which employability skill was being promoted or was embedded in the action. When examining a term from a subject and/or assessment and guideline, two or more frameworks were used to identify which employability skills were being embedded or were being promoted. Various literatures around employability skills were also used which provided definitions and details of where employability skills would be potentially located. This allowed the researcher to gauge the consistency of the definitions of the employability skill terms. Reigeluth's (1999) and Reigeluth and Carr-Chellman's (2009) various explanations of the different instructional strategies and the various approaches that go with it were used. The usage of this literature with the employability skill(s) framework assisted in ensuring the correct usage and interpretation of the instruments when identifying employability skills within text and instructional methods.

4.12 Pattern matching

According to Christense et al. (2011), this dimension is where the researcher makes a unique and complex prediction and determines whether it is supported. For this research, a different approach was employed for this dimension. For every term that was examined from the text that required learner action, the researcher attached possible and potential employability skill(s) to the various sub-terms that make up that employability skill. Every employability skill, as according to the framework, had terms that if they were to be employed would represent that employability skill. That consequently resulted in the formulation of a keyword list (Annexure D) that had a term with the attached employability skill(s). This was useful as it had been noted that similar terms were being used across all the subject documents of the curriculum.

The usage of the keyword list ensured consistency in identifying potential employability skills and that the outcomes were consistent with the outcomes of the framework. This allowed a standard approach when it came to identifying employability skills, thus ensuring correct usage of the research instruments. This allowed for patterns to be identified within the study and for predictions to be made of the outcomes that were to follow.

4.13 Peer review

This dimension is where the researcher discusses his research interpretation with his peers and colleagues (Christense et al., 2011). Being employed at a college meant that the researcher was able to engage with various college lecturers, some of whom were very instrumental in assisting in the understanding of the field of vocational education. During this process, the findings were also able to be shared and discussed and a deeper understanding of the instructional context of the curriculum was gained.

It should be noted, however, that these views did not have any impact on the actual results of the study, although they did help to shape and develop the researcher's understanding of the curriculum program.

4.14 Limitations

The usage of established frameworks for identifying and the embedding of employability skills reduced, to a certain degree, the element of total researcher subjectivity. The interpretation of the terms to identify employability skills though a framework was used but it was in the context of the researcher's understanding of the terms. This allowed the interpretation to be influenced by the researcher's context, although there was an established understanding from the texts that were used.

The employability skill document was sourced from an Australian context and although there are some similarities that can be drawn between South Africa and Australia, the countries differ in various economic and social ways. Every document designed and formulated has a context in which it works and that becomes its driving force of understanding; the different contexts can create a limitation for the interpretation.

Chapter 5

Analysis

5.1 Introduction

The angle of this research was to investigate the official designed aspect of the curriculum and to examine possible and potential employability skill(s) that would be identified by the actions of the learners when achieving the Learning Outcomes and utilization of instructional methods. There are three sub-questions from the study that provided guidance towards the analysis achieved by the study. These two questions provided the framework for the analysis:

- *Which are the dominant employability skills that are embedded in the NCV Finance, Economics and Accounting curriculum?*
- *Which are the most recommended instructional methods that are to be utilized within the NCV Finance, Economics and Accounting curriculum?*

This section of the study examined the instructional methods that are recommended to be utilized in the curriculum and investigates the skill(s) that would be ideally promoted by those instructional methods. In this section, the analyses from the main aspects of the research will be discussed.

There were two main aspects that the research used for its examination of the curriculum:

- Subject guidelines of each vocational subject with specification to the subject and Learning Outcomes.
- Assessment guidelines of each vocational subject with specification to the Learning Outcomes and suggested instructional methods.

Figure 2: Separation of Outcomes

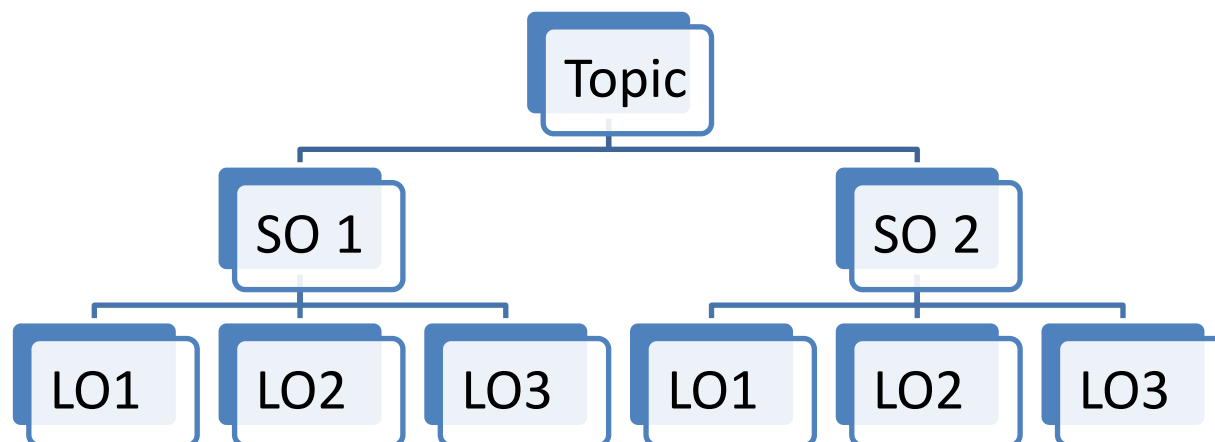


Figure 2 indicating the separation of Topics and Outcomes

The above figure 2 shows how the outcomes are classified and structured within the guidelines. From the figure 2, it is evident that each topic has a Subject Outcome and each Subject Outcome has Learning Outcomes. Thus the analysis of the study takes primarily from the structuring of the outcomes and the examination of the alignment between the curricula outcomes found within the guidelines. So in this section, the study will further investigate the alignment between the employability skills identified within the Subject Outcomes and with those identified in the Learning Outcomes.

The investigation of the alignment was to see if there was any form of 'relationship' and or 'link' between the curriculum outcomes. By the term 'relationship' used in the study, it was used within two contexts: 1) a commonality of set skills identified in one set of outcomes with those identified another set of outcome(s) within the same subject and topic. 2) Dominant sequence of skills – this is when, the number of times a skill was identified numerically in a particular order of dominance and was identically identified in the same order of dominance in other set of outcomes in which it was being examined to either within the same topic, subject or learning. An example for the first context, if Communication, Problem-Solving, Teamwork,

Planning and Organizing skills were identified in the Subject Outcome of a particular vocational subject. They then get identified in the Learning Outcomes of the Subject Outcome, and then there is a 'relationship' or 'link' between the outcomes. If the same set of skills is identified sequentially in that order of most identified or dominance in the Subject Outcome, then the same sequence of dominance is identified in the Learning Outcome, there seems to be a 'perfect' relationship between the outcomes this is the second context.

From the subject guidelines the different patterns of embedded employability skills between the outcomes required by the subjects and those done within the learning of the subject were able to be identified. The pattern from this analysis provided the insight of the relationship between what the subjects intend to do and what would be ideally achieved in the instructional learning. The analysis of the assessment guidelines provided details of the instructional methods that are suggested from the official design and the analysis examined the type of skill(s) that would be promoted upon the utilization of that method in the achieving of the Learning Outcomes. The intention behind this was to provide some form of evidence in understanding the nature of the relationship between the skills identified within the Learning Outcomes and the skills promoted by the suggested methods.

In this section, the ways in which the identified employability skills were embedded in the official aspect of the curricula were revealed. The intention was to show how these areas impact on the direction of the curriculum approach and the existing relationship between the subject and assessment guidelines if the curricula were to be implemented exactly as according to print or stated policy.

5.2 Analysis of the Subject Guidelines

This study used four vocational subjects from level 2 to level 4 as a basis for examinations, namely: Financial Management, Economic Environment, Accounting and New Venture Creation. Each vocational subject at a particular level has its own subject guideline thus for this study four subject guidelines were examined for each level of each subject. Since the NCV has three levels, it means that this study comprised the examination of twelve subject guidelines. Each subject guideline has a topic with Subject Outcomes for each topic and each Subject Outcome has

Learning Outcomes (see figure 2). So the study examined each Subject Outcome, the Learning Outcomes of each of the Subject Outcome and the potential and possible employability skills that were embedded in the outcomes both of the subject and learning.

In this section of the study, the employability skills that were identified from the Subject Outcomes of the various topics and the overall summary of the employability skills within each level of each subject were to be displayed. This section of the study intends to show the dominant employability skills that were identified from the Learning Outcomes in the subject guidelines of all the subjects, as per the question posed by the study. The section will conclude by providing an overview of the dominant employability skills identified from the subject outcomes and learning outcomes of each of the subjects from each level.

5.3 Analysis of Assessment Guidelines

The assessment guidelines provide guidance of which instructional methods can be utilized for the achievement of the Learning Outcomes. This section examines which skills would be promoted by the recommended methods and provides some form of analysis surrounding whether there was an alignment or relationship with what the subject intended to achieve and with what gets utilized to achieve those outcomes. Officially, each vocational subject is broken down into topics, each topic has attached Subject Outcomes and each Subject Outcome has Learning Outcomes that ideally must be achieved. Under each Learning Outcome there are specific instructional methods that are stated which must be used to achieve the intended Learning Outcomes.

Initially, the study employed systematic sampling when examining the topics and the suggested set of instructional methods. The reason for this was so that it would provide the study with a projected view of what the instructional approach of the curriculum was and having examined the Subject Guidelines, there was too much data to analyse. The study did, however, see the need for a thorough examination of all the instructional methods found in units within the assessment guidelines of all the vocational subjects so as to get a parallel analysis of both of the examined guidelines.

For the examination of the instructional methods within the assessment guideline, the researcher would note the instructional methods that were stated by the guideline which must be employed to achieve that particular Learning Outcome. Each instructional method in principle when implemented fosters a particular skill or a set of skills (Reigeluth, 1999).

5.4 Examination of Subject and Assessment Guidelines

Each topic from each subject has Subject Outcomes, so from the topic the employability skills that were identified from Subject Outcomes were examined. This section examined and identified employability skills embedded in all of the outcomes. An example of how the study identified those skills and the analysis thereof has been provided. One vocational subject has been used to provide an illustration of an analysis of the examination of a subject guideline so as to provide a picture of how the rest of the analysis was completed.

In this section, the analysis of the investigation of the identified skills, within the Subject and Learning Outcomes of the vocational subjects and skills promoted by the suggested instructional methods in achieving those outcomes are shown. This guided the study to explore the alignment between the Subject Outcomes and the Learning Outcomes, and to investigate their relationship. This alignment would provide an insight into whether there was a relationship between what the subject demands of the learner and the actual learning that takes place. Further to this, it would help to determine whether the recommended instructional methods utilized would be ideal for the nature of the desired skills.

5.4.1 Applied Accounting

The examination of the Critical Development Outcomes of Accounting done by the study identified that this vocational subject would be focusing on promoting these employability skills: Planning and Organizing, Initiative and Enterprise, Problem-Solving, Learning, Self-Management and Communication skills as the main skills that are meant to be embedded throughout the scope of the subject. The Critical Development Outcomes are the essence of the subject and this is where the overall learning should lead the learner to (DoE, 1998; SAQA, 2000). The analysis of the Subject Guideline, from level 2 up to level 4, showed that this subject

has 15 topics altogether, with 246 employability skills being identified in subject outcomes and 798 employability skills being identified in the Learning Outcomes (Annexure F).

The data collected as shown by the tables in Annexure F from the Accounting subject guideline starting from the entrance level (level 2) of the curriculum to the last level (level 4), for both the Subject and Learning Outcomes, revealed the Communication and Self-management skills as the most identified employability skills found within the outcomes. In levels 2, 3 and 4 of the Subject and the Learning Outcomes, Self-management was found to be the most embedded skill to be identified throughout the outcomes of the topics whilst Team work was not identified at all throughout all the outcomes, both of the Subject and Learning. The Technology skill was also another skill that was not identified, with the exception of it being identified in level 4 and it was the skill least identified within the level concerning the Subject Outcomes.

Throughout the outcomes of this vocational subject, the Communication skill continuously followed – being identified - after the Self-management skill, as reflected in the tables 8 – 13 (Annexure F). Throughout the examination of the subject and learning outcomes, the study found a consistent promotion of these skills: Initiative and Enterprise; Planning and Organizing; Learning and Problem-Solving. It was found through the examination that the Technology skill was the least identified skill within the learning outcomes starting from level 2 to level 4. There were a number of skills that matched their equal sequence of emphasis both within the subject outcomes and the learning outcomes comparatively. This reflected that there was link between what the subject intended to do and with what the learning process would achieve.

There was a consistent identification of Self-management skill as the most likely skill throughout the levels, both within the Subject and Learning outcomes. The Communication, and Initiative and Enterprise skills were found to match their sequence of emphasis both within the Subject and Learning Outcomes of level 2 and level 3 whilst level 4 revealed an equal sequence of emphasis of Problem-solving, and Planning and Organizing skills. The data of the study revealed that there was a constant average identification of skills within the Subject Outcomes, unlike the Learning Outcomes where in each level there was an increase in the

identification of skills. This was as a result of the increase of Learning Outcomes that needed to be achieved in each level.

The assessment of the instructional methods for Accounting identified Group work; Practical Exercises, Tests and Classroom Activity were the common instructional methods that were recommended to be used by instructors appearing in each level. The Discussion method only appeared in level 4, whilst Assignments were found in both levels 2 and 4. Simulated Exercises, Case Studies, Demonstrations and Student Questioning were only found in the entrance level of the subject and never appeared in the following levels. The study of the data revealed Practical Exercises and Tests were the most recommended instructional methods to be utilized in the achievement of the learning outcomes of Accounting. The number of times each of these instructional methods was found increased in each level of learning.

5.4.2 Economic Environment

The examination of the Critical Development Outcomes for Economic Environment done by the study, the research identified these employability skills that the subject should be promoting through its learning: Problem-Solving, Communication, Learning, Planning and Organizing, and Self-Management skills. These were the core and key skills that were to be promoted throughout the scope of the learning. Economic environment was identified to contain 153 and 541 employability skills within its subject and learning outcomes, respectively, throughout its 11 topics from level 2 to level 4 as found in tables 14 – 19 (Annexure G).

From the study on the subject guideline of Economic Environment, the research identified: Communication, Initiative and Enterprise, Planning and Organizing, Self-management, Learning and Problem-solving skills were skills that were being promoted from level 2 to level 4. The Technology skill was identified only in level 4 in both of the outcomes (see Table 18 and 19) and was the skill to be identified least in that level. In both of the outcomes of level 2 (see Table 14 and 15), the Self-management skill was the most identified skill but in level 3 and 4 (see Tables 16 to 19) the Communication skill was the most identified within the outcomes of each level. The Communication skill was the only identified skill in this subject that showed consistent sequential alignment of dominance from level 2 to level 4 both within the Subject and Learning

Outcomes of all the levels. Planning and Organizing, Self-Management and Learning showed sequencing aligning of dominance in level 2 and level 4, with Initiative and Enterprise skill aligning sequentially only in level 4.

There was an observable consistent pattern in the sequencing of skills found within the Subject and Learning Outcomes in each level of subject. An example of this was Initiative and Enterprise, which was the third most identified skill in level 2 in terms of the Subject Outcome. The same manner of identification in regard to sequence takes place in level 3 whilst in level 4 it is the fourth most identified skill. Planning and Organizing identified equally with Initiative and Enterprise in level 2 and appeared to be identified more strongly in level 3 and then was again the third most identified skill in level 4. This illustrated that there was a certain pattern of the sequencing of skills throughout the Economic Environment subject.

There were various instructional methods that were recommended to be employed by the instructors, as documented by the Assessment Guidelines. Group work, Case Studies, Tests and Presentations were instructional methods that were identified in all of the levels. Case Studies and Tests grew in terms of the number of times they were identified in each level whilst Presentations increased in terms of the times it was identified from level 2 to level 3, and then decreased in frequency of identifications from level 3 to level 4. There was an increase in the number of times that Group work was identified from level 2 to level 3 but its frequent use was then maintained from level 3 to level 4. Assignments were found only in levels 3 and 4, whilst instructional methods such as Discussions, Research and Practical exercises were found in level 2 and Debates were found only in level 4.

The analysis of the data from the subject Assessment Guideline, revealed that Case Studies were the most recommended instructional method that were to be employed from a summative perspective of the subject, whilst Debates are the least often recommended by the Assessment Guideline. Group work, Tests, Assignments and Presentations were the instructional methods most frequently recommended to be used in the achieving of the outcomes.

5.4.3 Financial Management

In the examination of what the Learning Outcomes were to achieve in relation to the Critical Development Outcomes of the subject, the investigation revealed that Problem-solving, Planning and Organizing, Communication, Learning and Self-Management skills were the core and key employability skills for the subject. Table 20 to 25 (Annexure H) reveal, Financial Management was made up of 15 topics with 217 and 627 employability skills identified within the subject and learning outcomes respectively.

From the entrance level (level 2) up to the exit level (level 4) of the Financial Management subject, the research revealed from both the outcomes (subject and learning) that Communication, Initiative and Enterprise, Planning and Organizing, Self-management, Learning and Problem-solving skills were skills that were identified, with the exception of the Technological skill that was identified only in level 3 and 4 (Table 22 to 25 in Annexure H) in both of the outcomes. The sequencing dominance of those identified skills from the outcomes of the subject and those of the learning were found in all the levels of the subject. There was a particularly clear sequencing alignment of skills that was found in level 2 with the exception of the Communication skill being emphasized more in the Learning Outcomes than it was in the Subject Outcomes. The sequencing of the Planning and Organizing skill in level 3 aligned in both of the outcomes (refer to Tables 22 and 23), with the Communication, Initiative and Enterprise and Learning skills found to sequentially align in both outcomes in level 4 (Tables 24 and 25).

In level 3, the study found that there was an equal emphasis on the Technological skill as on that of the Planning and Organizing skill, although in the previous level there was no identification of the Technology skill. It was an interesting observation that the Technological skill was identified more than Initiative and Enterprise skill, which was the skill to be least frequently identified within the Subject Outcomes, but the converse of that order was identified within the Learning Outcomes. For the first time, the Learning skill was found to be the dominant skill in terms of identification of the study within the learning outcomes of level 3 (see Table 23). Based on the study, in the Subject Outcomes of the subject, it was the third

most identified skill after Communication and Self-management skills were found to have equal identification of dominance.

The study found Group work, Practical Exercises, Case Studies, Demonstrations, Tests, Assignments, Discussions and Research instructional methods that were recommended for the instructors to employ for Financial Management in the achievement of the outcomes. Group work, Practical Exercises, Case Studies, Tests, Discussions and Research were recommended to be used in all the levels of the subject. Instructional methods that were found twice in the various levels were: Demonstrations and Assignments, which were both found in level 2 whilst the former was also found in level 3 and the latter in level 4. The study reveals Tests, Case Studies and Discussions as the most recommended instructional methods to be used by the instructors for the achievement of the outcomes.

5.4.4 New Venture Creation

This subject was found to have 12 topics with 189 identified employability skills found in the subject outcomes, whilst 744 employability skills were identified in the learning outcomes. The examination of the subject guideline of the New Venture Creation reveals that the potential core employability skills (as intended by the Critical Development Outcomes) that were going to be promoted through the study of this subject were: Planning and Organizing; Problem-solving; Communication; Learning; Technology; Self-management and Initiative and Enterprise. In the study, Table 26 through to Table 31, revealed that almost all of the employability skills provided by the framework were found, with the exception of Team work, the lack of which has been evident throughout all the other subjects. It was of interest though that in the investigation of the outcomes, the Team work skill was identified in the Subject Outcomes of level 2 (Table 26) and 3 (Table 28) and also in the learning outcomes of level 2 (Table 27) only. Its identification was only found in this vocational subject and was the skill to be least commonly identified in all the outcomes it was found in.

The Self-management skill was found to be the most identified skill in all the outcomes of the subject, with the exception of if in the Learning Outcomes in level 4, where the Communication skill was the most identified skill. Self-management and Communication, in the Learning

Outcomes of level 2 and Subject Outcomes of level 4, were the most identified skills. Regarding the alignment of skills found between the Subject and Learning Outcomes, and their sequencing, in both the outcomes there was an alignment in sequence of some of the skills in all the levels. The Learning skill was the only skill that had an alignment in sequence in all the levels, starting from level 2 to level 4. Self-management aligned in sequence in level 2 and 3, Initiative and Enterprise aligned sequentially in level 3 and level 4 whilst the Technology skill sequentially aligned in levels 2 and 4. Problem-solving aligned in sequence in levels 2 and 3 with the Team work skill sequentially aligning only in level 2. The data analysis revealed the Technological and Team work skills were the only two skills that lack consistent appearance in all the levels. By consistency, the study means that it does not appear in all the levels. The study found that there was no identification of Technological skill in level 3, the Team work skill was identified in the subject outcomes of level 3 only (see Table 28). Throughout the Learning Outcomes of level 3 and in both the Subject and Learning Outcomes of level 4, the Team work skill was not found.

The examination of the instructional methods of New Venture Creation shows various usages of methods that are recommended to be employed by the instructor. Group work, Case Study, Tests, Assignments, Discussions, Research and invitation of a Guest Speaker were all methods that were identified to appear in all the levels of the subject – from level 2 up to level 4. It was of interest to the study that instructional methods such as Tests, Assignments and the invitation of Guest speakers progressed in terms of the number of times they were identified in each level. There was an increase in the number of times they were identified in each level, comparative to the previous level. Whilst with instructional methods such as Case Studies, Discussions and Research, their frequency decreased from level 2 to level 3 and then suddenly increases in level 4.

Simulated Exercises and Presentations as instructional methods were identified in level 2 and 4 whilst Role Plays were identified in levels 3 and 4. Instructional methods such as Demonstrations, Debates and Lectures were only identified in the entrance level of the subject – level 2. From a summative accumulative perspective, assessing the number of times the

instructional methods were identified throughout the level, the analysis shows Tests as the most recommended instructional method to be utilized and Debates being the least recommended instructional method to be utilized by the instructor in the achieving of the outcomes. Case Studies, Assignments, Discussions and Research instructional methods were the methods that seem to have been identified the most for this vocational subject.

5.5 Summary analysis

In this section of the study, the research aimed to answer two sub-questions that guided the analysis of the data:

Which are the dominant employability-skills that are embedded in the NCV Finance, Economics and Accounting curriculum? Which are the most recommended instructional method(s) that are to be utilized within the NCV Finance, Economics and Accounting curriculum?

From the analysis, the study revealed that the most identified skills generally throughout the Subject and Learning Outcomes were the Communication skill and Self-management skill. These were the skills that - in regard to the most skills - would be dominantly emphasized or promoted by the ideal achievement of the outcomes. These would be the skills that would have high possibilities and chances of being promoted through the outcomes of the subject and learning. Comparing the two most identified skills; Self-management skill was the more frequently identified skill of the two. Ideally, the curriculum outcomes have high possibilities, if not intentions, to promote Self-management skills. This has presented many interpretations which are expressed in the following chapter, and it highlights government's intention of outcomes based education in its approach of instruction (DoE, 1998).

The study found that the Team work skill was the only skill not to be identified in both of the outcomes of all the examined subjects. Planning and Organizing, Problem-solving, Learning, Communication and Self-management skills were all identified to be embedded in all the Critical Development Outcomes of all the subjects with the Technological skill only identified in the Critical Development Outcomes of New Venture Creation, with Initiative and Enterprise identified in Applied Accounting and New Venture Creation Critical Development Outcomes.

The study found Tests as the most common recommended instructional method to be utilized by the instructor for all of the vocational subjects. Case Studies, Practical Exercises, Group work, Assignments and Discussions were also found to be strongly identified, following Tests, as one of the most recommended instructional methods to be utilized throughout the subjects. The study revealed that New Venture Creation had the most recommended instructional methods that an instructor could employ, having 15 instructional methods found within its subject assessment guideline. New Venture Creation, as stated previously, was the only subject that recommended the invitation of Guest Speakers and stated the usage of Lectures as instructional methods. Whilst on the other hand, Economic Environment was found to have the least instructional methods at a number of 9 being identified for the instructor. Comparative to the other subjects, instructional methods such as: Group work, Case Studies, Tests and Assignments were more frequently recommended to be used in Economic Environment than they were in the other subjects. Student explaining as a form of instructional method was only found to be recommended in Applied Accounting.

The study found Applied Accounting and Financial Management as having the most recommendations for the usage of Practical Exercises and Discussions respectively. So by analysing the most recommended instructional methods: the Communication, Self-management, Problem-solving and Learning skills have high chances of being fostered within the curriculum, comparative to the other skills.

Chapter 6

Findings

6.1 Introduction

In the previous section, the study presented the analysis from collected data and was guided by two of the study's sub questions. This section of the study shall answer this following question: *Do the suggested instructional methods when utilized promote the employability skills in line with the employability skills identified in the curriculum outcomes?*

This question has been systematically broken down into various headings and sub headings, so as to arrive at a clear, concise answer. Primarily in this section, this shall be explored by using these main points:

- Identified employability skills in the curriculum outcomes and if there was any alignment found amongst them.
- Employability skills that would be fostered by the recommended instructional methods and those identified from the outcomes.
- The progression of the curriculum outcomes and employability skills found in the different subject levels.

6.2. Potential employability skills in the curriculum outcomes and instructional methods

6.2.1 Potential employability skills in Critical Development Outcomes

The South African Qualifications Authority had stated out in its Act that the development of the National Qualification Framework was to implement an outcomes based approach to education and training (DoE, 1998; SAQA, 1995). The analysis showed that each subject that was examined had a set of Critical Development Outcomes that were to be linked with the Subject Outcomes in general and Learning Outcomes particularly.

The employability skills that were identified in the Critical Development Outcomes were common in all the subjects, as revealed in the analysis section, with the exception of Applied

Accounting that had the addition of the skill Initiative and Enterprise to it and New Venture Creation that had the addition of the skill Initiative and Enterprise and the Technological skill. This indicates most likely an existence of a commonality of tasks and similarities of instructional methods that would be employed between the subjects. This signals that the intention of grouping the subjects into one curriculum was that they be able to relate to one another, so that the one subject task or instructional learning would be relevant to the other subject. The commonality of the skills throughout the subject revealed a unified approach to learning occurring within the curricula. As indicated by the literature in the Literature review section, this finding clearly aligns with government's articulation that had envisaged Critical Development Outcomes of subjects as being in unison throughout the learners' area of vocational subject specialization (DoE, 1998; SAQA, 2000).

For this curriculum, the Critical Development Outcomes have common skills that would be found in all the subjects within this field of study. The common employability skills that were identified to be embedded in the outcomes, as revealed by the analysis section, in no particular order, are: Planning and Organizing, Problem-solving, Learning, Communication and Self-management. As shown by the analysis section, these skills should be identified throughout all of the outcomes. Instructional methods that were recommended to be utilized in the achievement of outcomes should be in line with promoting or fostering these skills, as embedded within the Critical Development Outcomes. It was taken into consideration though, that there was no form of weighing (in terms of order of importance) of Critical Development Outcomes and determining which were more critical than others. This has an implication towards the study, as in far as weighing which potential employability skill should be emphasized more than another.

6.2.2 Employability skills in Subject Outcomes

The rationale of Subject Outcomes would be to provide guidance or an overarching framework that would guide the achievement of subject topics. As stated in the earlier sections of the study, these outcomes are sub-topics of the topics in which they define the basis for the learning. The study had found that all the employability skills were identified in the Subject

Outcomes of the topics within the vocational subjects, with the Team work skill only being identified in New Venture Creation Subject Outcomes. Potentially, this would indicate that there would be little if not no emphasis on learners deriving their understanding from activities that would encourage team work. Another interpretation would also mean that the core of the learning would be directed specifically to the individual learner. This outcome provides the instructor with an idea of what section of work should be gained by the learner. Thus the lack of identification of the Team work skill within the Subject Outcomes necessarily points the instructor in the direction of the manner of the final outcome(s) towards the instructional process. If adhered to precisely, whilst holding all other things constant, given the correct instructional methods, the embedded skills in the subject outcomes would be potentially promoted throughout the topics.

Based on the analysis, Applied Accounting was the vocational subject that was found to have the most identified employability skills from the subject outcomes, comparative to the other vocational subjects. It was this subject that had the most topics that equalled the topics in Financial Management. It was interesting though that Applied Accounting and Financial Management have the same number of topics but Applied Accounting has more employability skills identified from it. This was a result of the fact that Applied Accounting has more Subject Outcomes under its topics than Financial Management and the other two vocational subjects. Out of the 8 employability skills provided and defined by the framework (DEST, 2006), five of the skills, namely: Communication, Planning and Organizing, Self-management, Learning and Problem-solving were identified the most frequently in Applied Accounting. This shows that there was a greater emphasis on acquiring these skills from this subject and a greater instructional offering by the subject.

From an instructional point of view, this generally points out that there were going to be either a longer duration of the use of instructional methods or a greater focus on this subject compared to the other 3 vocational subjects. This may create bias in determining which subject requires a greater degree of attention whilst on the other side it may suggest that there was more to be gained from the subject as a whole. The Technological skill was found to be

identified the most in Financial Management, which suggests that instructional methods that would be employed within this subject would have a greater part of technological aspects. It was surprising though, that the Technology skill had a low identification within the Subject Outcomes of most of the subjects, given the importance of Technology in today's knowledge economy (DoE, 1998). From level 2 to level 4 vocational subjects such as: Economic Environment and New Venture Creation showed a consistent increase in the identification of employability skills within their Subject Outcomes. This was evident by the increase in topics of the subjects which implies an increase in the instructional planning. This went to indicate that on an average there was going to be an increase in the types of instructional offering as the level increases from level 2 to level 4 as there was increase in the number of Subject Outcomes found under the topics.

Applied Accounting showed a slight decrease in identified employability skills from level 2 to level 3, although there was an increase in the number of topics. Ironically, within Applied Accounting, there was a decrease in the number of topics from level 3 to level 4 but there was an increase in the number of employability skills identified. This was as a result of having an increase in the topics with few Subject Outcomes in the case of level 3, and few topics in level 4 but with more Subject Outcomes under them. This was in contrast to Financial Management which decreased in Subject Outcomes from level 3 to level 4. This indicates that there was no uniform approach across all the vocational subjects because ideally, all the subjects should be increasing in terms of identification of skills as they progress to each level.

From the curriculum perspective of all the subjects, the Self-Management skill was found to be the most identified employability skill within the Subject Outcomes. This skill was followed by Communication, Problem-Solving, Planning and Organizing, Learning, Initiative and Enterprise, Technology and Team work, in that particular sequence.

6.2.3 Potential employability skills in learning outcomes

Learning outcomes provide an indication of what the learner should primarily be competent in and know at the end of the section or the learning process (DoE, 1998; SAQA, 2000). Learning outcomes provide guidance towards what the learner should achieve within that particular

Subject Outcome. As a result of the analysis of the work done on the subject guidelines, the study found that there were more Learning Outcomes than Subject Outcomes. This emphasized the priority and focus of the curriculum being engineered towards the learner developing subject content and specialization as a result of the learning process.

It was very interesting for the study that altogether for all the vocational subjects; there were 2710 employability skills that were identified by the examination of the Learning Outcomes. Applied Accounting was the subject to lead in the majority of the identification of those skills followed by New Venture Creation, Financial Management and Economic Environment, which had least identified employability skills compared to the other three vocational subjects. This provided an indication which subject within its learning process was to promote and foster which employability skills towards the learners. Generally, Communication, Team work, Initiative and Enterprise, and Self-management skills were identified the most frequently in New Venture Creation comparative to the other subjects. Planning and Organizing, Learning, Technology and Problem-solving skills were identified the most in the Applied Accounting subject. From an instructional perspective, this indicated which subject have a demanding design in it from an official side of the curriculum and which subjects have a greater potential and chance of empowering and embedding the learner with employability skills. Using an instructional design framework, this would therefore mean greater, skilful and intense usage of instructional methods on the parts of the subjects (Reigeluth, 1999; Reigeluth and Carr-Chellman, 2009).

In all of the subjects, with the exception of a few instances in some levels of some subjects, there were an increasing number of employability skills identified in the Learning Outcomes in the progression of a subject level. This was particularly due to there being an increase in the number of Learning Outcomes under Subject Outcomes in a following level and there were more than one employability skill(s) being identified to be embedded in one Learning Outcome. This then could be stated as the more numerous the Learning Outcomes were, the greater the chances of skill empowerment achieved by the learner. There was a concern that the identification of the Technology skill in the Learning Outcomes did not show a consistent

arrangement amongst the various levels in identified subjects. In Economic Environment it was only identified in level 4, in New Venture Creation it was identified in level 2 and later identified in level 4, whilst in Applied Accounting it was identified in level 2 and 3 and then had a greater identification in level 4. In most of the vocational subjects there was a less usage of terms that provided a description for the fostering of the Technology skill.

An interpretation of this would be the reality that the Learning Outcomes within the subject guidelines were to provide an end-result rather than the actual instructional setting. In other words, the intentions of Learning Outcomes were to assist the instructor in being able to derive an instructional approach for the learning. This finding leaves vast room for instructor interpretations towards the nature of instructional method that must be utilized for the achievement of Learning Outcomes. Another interpretation would be that it would be assumed that technological devices and apparatuses were being utilized by the instructor and students as part of the methods of instruction. There were some technological instructional methods which were part of other methods that were recommended for the instructor to utilize in their achievement of the Learning Outcomes but weren't explicitly stated such as projectors.

The Team work skill was only identified in one subject, New Venture Creation. This could be as a result of the former above-mentioned interpretation of Learning Outcomes providing end-result achievement rather than instructional process. In the analysis section of the study, accumulatively from all the Learning Outcomes of the subjects, the Self-Management skill was the most frequently identified employability skill found within the curriculum, closely followed by the Communication skill. So the curriculum learning process would be orientated more towards the learner being responsible for their own learning and that was what the recommended instructional methods would have to achieve. In sequencing order, Planning and Organizing skill followed Communication, which was then followed by the Learning, Problem-Solving, Initiative and Enterprise, Technology and Team work skill.

6.2.4 Employability skills in recommended instructional methods

As referred to in the conceptual framework section, Reigeluth and Carr-Chellman (2009, pg 21) argue that an instructional method is "anything that is done purposely to facilitate learning or

human development”. In many terrains of educational discourse this term was synonymous with ‘instructional tactic’, ‘instructional technique’ or ‘instructional approach’. The Assessment Guideline provided each subject with recommended instructional methods that an instructor can utilize in the achievement of the learning outcomes for the various tasks and activities.

The study identified that each vocational subject had its own assessment guideline where the instructional methods were found. Collectively, in all the four vocational subjects, there were 15 instructional methods that were recommended for the instructor to utilize or employ in their instructional process. As shown in the previous section, New Venture Creation had the most recommended instructional methods and Economic Environment had the least recommended methods compared to the other subjects.

Each instructional method have a particular set of skills that it would promote upon usage within the learning process. From the analysis section of the study, the examination of the instructional methods showed that each subject have skill(s) being promoted in the utilization of the recommended instructional methods. New Venture Creation, as a result of the recommended instructional methods, was found to have Communication, Team work, Planning and Organizing, Self-management, Learning and Problem-solving skills as the most identified skills compared to the other subjects. This was primarily due to the fact that New Venture Creation contains more instructional methods than any other vocational subject that the study investigated. This was in agreement with the argument that each instructional method promotes a set of skills, meaning that the more the methods, the more set of skills will be identified, as in the case of New Venture Creation.

This was also evident in Applied Accounting, which according to the study had the second most methods to be found. Initiative and Enterprise skill was identified the most in Applied Accounting. Financial Management was another subject that had the same number of methods found in it as Applied Accounting. From the analysis of the methods, it showed that it had employability skills that were second most identified skills to New Venture Creation.

Collectively, if the instructor(s) were to implement all the recommended instructional methods of the curriculum regarding the vocational subjects, the curriculum would dominantly be

promoting Self-management skills more than the other skills. This meant that the instructional process would rely more on the learners' responsibility to manage their own tasks. This therefore says that there was going to be more reliance on the learner to understand their own work and to be responsible for all the tasks and/or activities (DEST, 2006). The Communication skill closely followed Self-Management in the skills that would be promoted by the instructional methods. This indicates that the instructional process was more leaned towards interaction, with learners being able to interpret documentation, as per one of the identification criteria for the skill (DEST, 2006). The dominance of this skill indicates that the learning process within the subjects was interactive by nature and there would be more emphasized usage of text, with students being able to interpret and understand their work. This find demonstrates that the learning philosophy of the curriculum can assumed to be constructivist in nature.

The Problem-solving skill was another skill that was the third most identified skill as a result of the recommended usage of the instructional methods. Intentionally the instructional approach seems to want to develop learners who are problem solvers, able to analyse and make conclusions based on a diagnosis (DEST, 2006; DoE, 2007). The Learning skill was the fourth most identified skill amongst the skills that would be ideally promoted by the instructional methods. Interesting though was the identification of the Team work skill in all of the vocational subjects, which in the previous sections of the study was not strongly identified as it was in the instructional methods. This goes to prove that there was a critical role that was being played by instructional methods in the achievement of outcomes. Ideally, there should be a clear relationship between what was to be done and how it was to be done – this was where instructional theory comes in. All of these dimensions of learning were critical for the promotion of skills on both ends.

Of concern though, was a lack of an explicit instructional method(s) that could have been examined for the fostering of the Technology skill within the assessment guidelines. Therefore this has created an analysis and a finding that assumes that there would be no potential Technology skill promoted for the learner to gain through the use of instructional methods. It has to be clarified that the subject and assessment guidelines of the subjects provide numerous

instructional methods and some of these instructional methods are pointed in a direction for them to be utilized within environments and or settings that are technologically orientated (DoE, 2007). Their exclusion from the investigation was due largely that the methods or instruments unlike the other recommended methods and instruments weren't specifically attached to specific Subject and or Learning Outcomes. Within the Subject Guidelines they are documented as "The following teaching aids should be made available, if possible:" (DoE, 2007 pg 8) then there was no specific location for which part of the outcomes they were meant to be utilized. This may have limited the study in being able to draw out any form of fostered Technological skill from the recommended instructional methods.

6.3 Alignment of skills between curriculum outcomes and instructional approach

6.3.1 Alignment between Critical Development Outcomes and Learning Outcomes

According to the subject guidelines, the subject's Critical Development Outcomes were to be linked with the subject's learning outcomes. According to Department of Education, this would allow the learning outcomes to be contextually demonstrated, and allow the end-products of learning to be relevant throughout life (DoE, 1998; DoE, 2007; SAQA, 2000).

The study had identified from the analysis section that there was a commonality of identified employability skills within the Critical Development Outcomes of all the vocational subjects of this researched curriculum. Namely, Communication, Planning and Organization, Self-Management, Learning and Problem-Solving were the skills that were found to be common. From the analysis of the employability skills found in all the subjects, all the subjects align with the skills found in their Critical Development Outcomes. Even in Applied Accounting and New Venture Creation, the two subjects that had an addition of employability skills to the identified skills found in the other subjects, the employability skills identified in their Learning Outcomes aligned with those identified within their Critical Development Outcomes. So the envisaged link between Critical Development Outcomes and the Learning Outcomes, as outlined by the subject guidelines of the subjects, was shown to exist as the study indicated that there was a form of link between the two outcomes. Based on the study, what the learning process entailed as its end product was in line with what the Critical Development Outcomes desired for the

study to achieve. This implication for the Instructional theorist in this regard provides a finding that there was a fundamental role that was required to be played by those responsible for the instructional process and the methods thereof, which they would employ in the achievement of the end-products. From an official curriculum perspective, what was supposed to be known and learned, and what must be achieved by the learner through this subject was in line with each other.

This would then mean, ideally from a methods perspective, that any form of deviation from what has been documented to be achieved would really be in the hands of the instructor and their methodological approach. The knowing and understanding of the Critical Development and Learning Outcomes, subject and pedagogical training, and educational orientation of the instructor would then be critical role players in the design and formulation of an effectual instructional process that would be in line with the desired learning outcome (Martin et al., 2000; Reed et al., 2012). According to Mayor and Palmer (2006, pg 620) they had argued in the literature review that there was “a close connection between subject matter knowledge and pedagogical knowledge” and that these were linked. They further argued that “there can be no content knowledge without a pedagogic dimension”.

In the literature review section, Oliva’s (1992, pg 12) argument was that “curriculum makes a continuous impact on instruction and, vice versa, instruction impacts on curriculum”. Oliva argued further to say that “instruction deals with how people learn and that it has in its roots some psychological foundations to it”. So the instructional process requires some form of orientation to it (Reed et al., 2012). On the other hand, factors such as the nature and needs of the learner, the environment in which the instruction was to take place and the time frame for the learning were factors that can influence the type of instruction that will be employed (Reigeluth, 1999; Jorgensen, 2005; Reigeluth and Carr-Chellman, 2009).

6.3.2 Alignment between Subject Outcomes and Learning Outcomes

All 8 employability skills were identified in both the Subject and Learning Outcomes from the subjects collectively. According to the structure provided within the subject guidelines, Learning Outcomes were derived as a result of the Subject Outcomes (see figure 2). These Learning

Outcomes provide direction in terms of the shape in which the learning was to take place and the final outcome of the learning process.

Altogether from all the subjects collectively, 5 out of 8 employability skills namely: Self-Management, Communication, Initiative and Enterprise, Technology and Team work – were aligned in sequential dominance in both the Subject and Learning Outcomes. In other words, when assessing the dominance of skills accumulatively in the Subject Outcomes, the same sequence of domination order exists within the Learning Outcomes accumulated. Planning and Organizing, and Learning skill were found to be emphasized more in the Learning Outcomes than they were in the Subject Outcomes based on the Subject and Learning Outcome sequence. This was comparison to the Problem-Solving skill which was noted to be emphasized more in the Subject Outcomes than in the Learning Outcomes of the subjects, collectively.

Based on individual subjects, there was a contrasting view in some aspects although not that much. Applied Accounting accumulatively, showed a matching alignment of the sequence of skills both in all its Subject and Learning Outcomes. There was a matching emphasis of skills in both the Subject and Learning Outcomes. So in other words, potentially, the Learning Outcomes that would be achieved in an ideal learning process and the skills that would be fostered through that process would be identical in the nature of emphasis with those identified in the Subject Outcomes. It could be said then, that Applied Accounting has a clear aligning set of employability skills within its outcomes. There was a 'direct' link between what the subject aims for and what the learning process achieves, based on these subject aims. Economic Environment, Financial Management and New Venture Creation did have some skills that showed some sequence alignment between their Subject and Learning Outcomes. Notably, Initiative and Enterprise, and Planning and Organizing skills showed sequential alignment in both Economic Environment and Financial Management, whilst the Learning skill, Technology skill and Planning and Organizing skill showed sequential alignment in the Subject and Learning Outcomes of Economic Environment, Financial Management and New Venture Creation, respectively.

Even though there was no clear sequential alignment of skills accumulatively within these 3 subjects, as demonstrated by Applied Accounting, there was in some aspects an existing sequential alignment of skills in some levels in the Subject Outcomes and in other Learning Outcomes of the subjects. This provides a picture that there were going to be some skills that may be more emphasized by the Subject Outcomes and be less emphasized by the Learning Outcomes and converse the same. However the study clearly showed that what was found in the Subject Outcomes was to be located in the learning outcomes too. This was a positive aspect of the official curriculum and its design.

6.3.3 Alignment between Instructional methods and Learning Outcomes

As had been investigated by the study, all 8 employability skills were identified in all the collective Learning Outcomes of the subjects. The Technology skill was the only skill that was not identified from the instructional methods, due to the limitation that has been cited previously.

Collectively, having examined the instructional methods of all the subjects, there was a sequence alignment of the identified skills found in the instructional methods and those found in the Learning Outcomes. Self-Management, Communication and Learning skills showed sequential alignment in both the methods and Learning Outcomes. Team work and Problem-Solving skills were going to be emphasized more by the utilization of the instructional methods than they were going to be promoted by the Learning Outcomes. On the other hand, the Learning Outcomes were identified to have been emphasizing more of Planning and Organizing, and Initiative and Enterprise skills than what the instructional methods were going to foster if they were to be utilized. This vice versa nature of the emphasis of skills provides an insightful outlook into the examination. Planning and Organizing, and Initiative and Enterprise skills, as defined by the framework, have many aspects of theoretical foundations to them. They require the learner to think and conceptualize, as in the instance of the Initiative and Enterprise skill, which requires the learner to be creative, generate a range of options and translate ideas into action (DEST, 2006). Whilst Team work and Problem-Solving do contain aspects of theory, they hold more of a dimension of being a practical and hands-on approach as amongst the criteria to

identify the Problem-Solving skill which would be to “develop practical situations; solving problems in teams” (DEST, 2006, pg 18).

This reflects the intended balance between theory and practice – though Gamble (2005) in the literature had stated this as where the complexity arose - sought by the curriculum and the potential roles that are played by the outcomes and employment of recommended methods (Gamble, 2005; DoE, 1998; DoE, 2006). The outcomes provided more of a conceptual role whilst the instructional methods provided more of a practical role. According to the guidelines of the subject, the work that the student will have to do must balance between theory and practice (DoE, 2007). Examining the Learning Outcomes in individual subjects and the methods recommended in each subject shows commonality of skills throughout, with the exception of the Technology skill not being identified in the instructional methods. The Team work skill was the only skill that was found in the instructional methods but was less in the learning outcomes of the subjects, with the exception of New Venture Creation. Communication, Self-Management and Problem-Solving skills showed sequence sequential alignment in Applied Accounting, with Self-Management and the Learning skills showing sequential alignment in Economic Environment. Planning and Organizing showed sequential alignment in Financial Management too. Based on the analysis, the study showed that some skills would be emphasized more by the Learning Outcomes than they would be by the instructional methods, with the converse being the same. It was enriching to observe that the set of skills fostered by the instructional methods were located in those fostered by the learning process.

6.4 Summary of findings

This section uses this sub-question as its guideline: *Do the suggested instructional methods when utilized promote the employability skills in line with the employability skills identified in the curriculum outcomes?*

In the initial phases of the chapter, the study was able to explore the various employability skills that were identified in the curriculum outcomes and the suggested instructional methods. This finding was crucial for the study as it provided a picture of the different types of employability skills that would be more or less emphasized in the curriculum outcomes and the instructional

approach. The study found that each of the curriculum outcomes and methods had employability skills within them, although some subjects placed different aspects of emphasis on the skills. The study found that all the subjects had a commonality of identified skills when it comes to the Critical Development Outcomes of the subjects, although there was no specific outcome that had more weighting than the other. The implication of this was that there was no employability skill from the Critical Development Outcome that would be deemed to be more critical to be fostered amongst those which were identified. It was thus assumed that the skills that were identified in the Critical Development Outcomes all had an 'equal' status of importance.

The study found that there were alignments between curriculum outcomes and how the learning process was recommended to take place. The employability skills in the Learning Outcomes were identified in the Critical Development Outcomes and Subject Outcomes of the subjects. Applied Accounting was the only vocational subject that showed a clear sequential alignment accumulatively of skills found in the Subject and Learning Outcomes. What was fundamental was that although there was no clear sequential alignment, but a commonality of a set of skills that existed in one set of outcomes was found to exist in the other set of outcomes within the same topic and subject. So there was a link between the curriculum outcomes.

The examination of instructional methods that were suggested in the Assessment Guidelines revealed that they have the capacity of fostering skills that were identified in the Learning Outcomes. Between the individual subjects, the study revealed that there was some sequential alignment between the skills that would be promoted by the methods and those identified in the Learning Outcomes. So ideally, when a method was to be utilized in an instructional process there were possibilities that the set of skills identified in the Learning Outcomes would be achieved by the employment of that method. The study found that there was an alignment between the set of skills that would be promoted by the utilization of the recommended methods and the skills identified in the Learning Outcomes.

Chapter 7

Discussion

7.1 Introduction

The macro perspective approach, or the bigger picture of the study, was to examine the relationship between vocational education and the economy as well as the impact of vocational education and the contribution it would have, if any, towards employability in the economy. The understanding from this specifically entailed the need to examine the vocational curriculum and its intended role in creating a potential labour force with the knowledge and skills acquired so as to be employable. The micro perspective of the study was to specifically investigate an existing vocational curriculum from an official design perspective and ascertain whether that vocational curriculum included chances or possibilities of employability skills being developed by the students. The core reason for investigating the prospective employability skills was to examine whether the vocational curriculum afforded means and ways of promoting those skills. The core focus of the study was to examine the curriculum outcomes and whether they are embedded with employability skills and to investigate the ways in which these outcomes were going to be promoted throughout the official curriculum. The following discussion has an intention to answer this final sub-question of the study: *Does the instructional approach promote an employability skills based curriculum?*

This chapter has been broken down into various items to allow for the sub-questions to be answered using the following points for discussion that were found in the study:

- Employability skills in the curriculum
- The curriculum's instructional approach based on the recommended methods

7.2 Employability skills found in the curriculum

It would be productive for the study if it were to unpack the meaning of these skills in the light of their existence in the outcomes. One of the main aspects of the study was to examine and investigate the potential existence of employability skills within the curriculum outcomes of the

subjects and the suggested instructional methods. The study found that there were employability skills embedded in the implementation of the outcomes and instructional methods.

The study was using 8 employability skills that have been identified as the common employability skills by an Australian employability framework. It was interesting to note that there were similarities between these employability skills and the skills that were documented in the DoE's 'Green Paper on Further Education and Training' that were to be achieved by the Critical and Developmental Outcomes (DoE, 1998). This reinforced the argument surrounding the importation of South Africa's educational policies that have been strongly influenced by those of countries such as England, America and Australia (Harley and Parker, 1999; Walters and Isaacs, 2009). There have been various arguments regarding the importation of educational policies to South Africa. The commonality and sameness of skills, could have possibly reflected the Australian influence in South Africa's vocational education training. Broadly speaking, this showed the impact of globalization in educational matters and how an economic reality has an implication towards an educational pathway and eventuality. This was in line with an argument set forth by Harley and Parker (1999), where they point out that the emergence of global markets does not only find ground in the South African context but also within its schooling system. But from another dimension of interpretation, these skills were universally valued within global corporate organisations and thus their emergence within the various international contexts simultaneously in different states indicates a response to the diverse need of capital.

The similarity of the skills with those of other international countries - in particular Australia in this case - reflects the intention of the official design side of the curriculum to give the curriculum an international character. This provides an indication, in part, of the government's intention and desire for the FET sector, making it not just an alternative for schooling but a premier choice for skills development and career mobility (DoE, 1998; DHET, 2012; Fisher et al., 2003; Gamble, 2003). According to Gamble (2003, pg 21) as discussed in the literature review section, it was argued that it will be difficult for "governments to control or fight against the

international nature of knowledge networks and educational services”. Thus the embedding of these employability skills within the curriculum outcomes gives potential accessibility not only to local employment but also to international employment. This was supported by Gamble’s (2003) argument when she points out that learning patterns were going to be influenced by both international and local based demands for employment.

According to the study, Communication, Planning and Organizing, Self-Management, Problem-Solving and Learning were the skills that were found to be embedded commonly in all of the vocational subjects’ Critical Development Outcomes. This indicated a common vision to be achieved throughout all of the vocational subjects, which was envisaged by the Department of Education in the past (DoE, 1996; DoE, 1998). Teamwork and the Technological skill were the two skills that were not identified by the study in the Critical Development Outcomes of the subjects but were deemed to be critical from the government’s Critical Development and Learning Outcomes, as outlined in policy (DoE, 1998). This was a cause of concern though, because the official side of the curriculum must have outcomes that will ensure that these skills were fostered as a matter of policy. It was found within the study that there were suggestions, for instructors to utilize technological instruments and devices. And these suggestions were based on availability of resources within instructional contexts. However, the study found that these suggested instructional instruments and devices weren’t directed towards a specific part of the outcomes. There was no direct trace for which set of outcomes they were to be used in. As part of reviewing the curriculum, it would be imperative that the designers specifically attach where the instruments would be recommended to be used in within the set of curriculum outcomes. Only New Venture Creation was found to have a Critical Development Outcome that would have explicitly promoted a Technological skill.

Examining the vocational subjects collectively, the Subject and Learning Outcomes in particular potentially reflect the Self-Management skill as the most identified employability skill, as discussed in the analysis section. According to the employability skills framework (Annexure C) that was being used by the study, what this would entail was that the majority of instructional method(s) that should be utilized within the subjects would require the learner to: “evaluate

and monitor their own performance; take responsibility for the work that they would have done; have the necessary knowledge and confidence in their own vision and goals and they should be able to clearly articulate their own ideas and vision” (DEST, 2006, pg 12). The mainstream of what the outcomes desire to achieve was potentially driven towards the development of the learner. Thus the core of the learning critically lied in the hands of and was the responsibility of the learner. This was in line with the objectives of the National Qualification Framework (NQF) that has amongst other aims to “contribute to the full development of the learner” (SAQA, 1995, pg 1; Walters and Isaacs, 2009). The view of SAQA has always been to create a qualification that has Learning Outcomes which should ‘qualify’ the learner with applied competence and the basis for them to be able to further their learning (DoE, 1998; SAQA, 1995; SAQA, 2000). So there was a clear emphasis on the learner being able to acquire the necessary employability skills for that particular specialization.

According to the assessment guidelines, instructional methods such as Case Studies, Research, Assignments and Presentations were ‘assessment instruments’ that were task-based and allow the learners to engage the knowledge (DoE, 2007 pg 6). By interpretation, these instructional methods upon their utilization allow the learner to become responsible for the work themselves. With the Self-Management skill being a dominant skill, these instructional methods would ideally require to be utilized more often within an instructional context. Having to implement and come up with instructional methods that promote learners taking responsibility for their work and being able to articulate their own ideas can present unplanned challenges. This then begs the question of understanding the nature of the learner and their capacity to actually do this. The reason for this was that colleges have, for the majority, been attracting a student population that come from disadvantaged backgrounds, which were young, where some have been historically excluded from educational opportunities and others were drop-outs from the mainstream schooling system (Gamble, 2003; Fisher et al., 2003; Powell and Hall, 2002). Thus, having the instructor play a minimal role in the instructional process can impact on the process and have its own disadvantages if the learner was not sufficiently capacitated to cope. By this, the official side of the curriculum assumes that the learner was capacitated enough to be responsible for their work and was knowledgeable. On the other side, the

curriculum in an instructional perspective, there was more of a responsibility on the instructor to devise methods that could eventually foster responsibility on the part of the learner.

Equally, instructional methods that have been mentioned above require accessibility to minimal resources for their implementation and utilization by the student. The student must also be conversant with these resources. The term minimal resources refer to accessibility to internet and a resource centre where the latest information can be accessed, either through newspapers, journals and/or articles. The subject guidelines of all the subjects did make a mention of these “teaching aids” but they were subject to them being available within that institution (DoE, 2007 pg 7). Parallel to that, an instructor of the learner must afford the learners an instructional setting where they can be exposed to such instructional processes. As it has been cited before in the study, that the subject guidelines of the vocational subjects state various instructional environments and means that instructors can utilize for the effective implementation of the suggested instructional methods. Within the assessment guidelines, it provided the instructor with 3 categories of assessment instruments for the instructor to work from (DoE, 2007 pg 6)

In this way, the official curriculum design does recommend methods as investigated within the assessment guidelines that can be used for various assessments and various settings for the different instructional methods. By the instructor merely going through the guidelines, they are provided with means and settings for their desired method which will suit their context. The reality would be, if those recommended and documented settings do really exist in that learning environment where the instructor was to implement the instructional methods. This was where the controversy exists between what is planned to be covered by the curriculum and what is actually implemented through the curriculum.

Communication was another skill that closely followed the Self-Management skill in terms of being identified the most. According to the framework (Annexure C) this skill was mainly gained by learners “listening and showing understanding; they are able to speak directly; the learners are able to read and interpret documentation; share information and use numeracy effectively” (DEST, 2006, pg 12). For this to happen effectively, it means that the learners were going to

need to work and engage with text and literature. Not limiting to these alone, but textbooks were going to be crucial within this curriculum. They can provide a basis for learners to be able to lay foundations for subject knowledge and to reveal their understanding concerning the work. From this type of skill, it could be noted that learner understanding was more prioritized than remote learning. So a large volume of work and or tasks within this curriculum was potentially orientated towards development of learner understanding. That was why from the study there was this constant relationship between Communication and Self-Management, which was seen by how many times these skills were identified within the Subject and Learning Outcomes of the curriculum. Communication and Self-Management were the two skills that were most frequently identified within the outcomes. The learner gaining understanding and being responsible for the work, has a direct relationship on each other. From an official design point of view, the subject and learning outcomes were line with an outcomes-based approach to learning.

Ideally, instructional methods such as Discussions, Group work, Practical Exercises, Demonstrations, Class Activities, Role Plays and Debates would be used frequently. From an instructional perspective, the instructor has various methods that they can utilize to promote the Communication skill. From the examination that was done by the study: Group work, Practical Exercises and Discussions were amongst the top six instructional methods that were found to be the most frequently recommended by the Assessment Guidelines of all the subjects. This provides evidence of learner understanding being one of the strongly focused areas of the curriculum. Tests were the most identified instructional method collectively, which was followed by the Case Study. Again the relationship of Self-Management and Communication comes into attention.

The curriculum shows a dimension of progression of Learning Outcomes and instructional methods in each level of a subject, because in almost each subject there was an increase of the skills that were being identified. This showed that, on average, there was an increase of Learning Outcomes in every level the learner attained. The number of methods that were found in each level grew. This then illustrated that each level intensified with work. Applied

Accounting was found to have the most identified employability skills; it can then be assumed that this subject has the most Learning Outcomes, followed by New Venture Creation and Economic Environment having the least identified. This could simply mean that there was going to be more work and instructional planning around Applied Accounting than the other subjects. Effectively what this indicated was that there was going to be more attention given towards Applied Accounting than the other subjects within the curriculum. There have been various sentiments within the economy of a lack of accountants and those with an accounting background, especially within municipalities. Although Applied Accounting being at the centre of attention may not, depending on interpretation, reduce the importance of the other subjects, this showed the relevance of the curriculum in responding to the needs of the local economy.

It was concerning though that as there was a progression of outcomes in each level, which resulted in an increase of instructional methods; the time frame to implement all of the outcomes remains constant as in the previous level. The 200 hour instructional time was a constant time throughout each level which means that the instructor will have less time in each level to implement an instructional method, despite Learning Outcomes having increased. Though it was beneficial that each level increases with Learning Outcomes, it was necessary for the time frame to be readjusted too. Effectively this meant that there was either going to be less depth in the usage of instructional methods or a minimal usage of them so as to accommodate the time constraints. It would be recommended that the official designers of the curriculum revisit the time frame structure and parallel the time frame with the increasing numbers of learning outcomes. Alternatively, the numbers of outcomes could remain the same so as to allow for the normal time frame of 200 hours to be maintained. Although it was not the intention of this study to examine the impact of time, which, according to the Instructional theory is viewed as a developmental/administrative constraint on part of the instruction (Reigeluth, 1999; Jorgensen, 2005; Reigeluth and Carr-Chellman, 2009), it would be interesting to assess how time would impact on the implementation of the various instructional methods within the curriculum. According to Reigeluth's (1999, pg 8) argument, time, amongst other

instructional conditions, “influences which methods will work best to attain the desired outcomes”.

7.3 Instructional approach of the curriculum

The study found that there were various recommended instructional methods within the Assessment Guidelines of the each subject (DoE, 2007). In each Assessment Guideline as shown by the study, the instructional methods were divided into 3 categories: Observation-based (less structured), Task-Based (structured) and Test- based (more structured). It was notable from the investigation of subjects, collectively; that Tests were the most frequently identified recommended instructional methods from all the assessment tasks and activities in the achievement of the Subject and Learning Outcomes. This was as a result of Tests being recommended to be utilized so as to provide learners and instructors with feedback. The Assessment Guidelines also recommended Tests after every topic in some subjects, hence the reason for more of them being identified. This provided a picture that the nature of the instructional approach set out in the curriculum was going to be more structured, and result driven. With Tests as an instructional method, it in most cases involves memorization and intellectual exercise.

Interestingly, based on the findings, Case Study was the second most identified instructional method. This instructional method focuses was on the learner developing their problem-solving skills, being able to analyse and gain aspects of understanding. According to Curzon (2004 pg 335) this method was used in colleges of ‘further education to intensify student understanding of the complex, real world relationships embodied’ in subjects. Curzon (2004) argues that this method improves the student’s ability to identify underlying principles and for the student to apply their insight concerning the task and or activity given. Economic Environment as a subject had the Case Study method recommended the most compared to the other subjects. Economics as a subject, has many aspects of analysis and the need to understand human behaviour (Parkin et al., 2010; Serfontein, 2006). This was understood as Economics as a subject requires understanding of the real world relationships, dynamics and decision-making (Todaro and Smith, 2006; Parkin et al, 2010). So this provided a link of Assessment instruments what the

curriculum offers and what would be needed in the world of work, although there were arguments that suggest a mismatch between what FET graduates gain and what was needed in the industry (Gamble, 2005; DoL, 2007). In further understanding this, these studied vocational subjects fall within the field of Business Studies within the subject occupational field. As a matter of general knowledge, those who are entering into the business world were required to not only understand the economy but to critically interpret and resolve challenges in the various periods of business cycles. There was an alignment between the type of skill that would be fostered by the method and that which would be demanded in the relevant industry.

Task based instructional methods such as Group work, Practical Exercises, Assignments and Discussions were the most recommended instructional methods following Tests and Case Studies. From the former mentioned methods, Communication and Self-Management were the common skills between these methods. This further reflected the focus being on the learner and them being responsible for the work. It was notable though, as was identified in the findings section, that there were some instructional methods that were not found in one subject but appear in another of the subjects. Role Plays were not found in the other subjects and only appear in New Venture Creation, while Simulated Exercises appear only in New Venture Creation and Applied Accounting. There was, to a certain extent, subject uniqueness in as much as the subjects were within one curriculum, the uniqueness of the subjects seemed to stem out. The instructor therefore would have been afforded an opportunity to foster a skill that related directly to the nature of the content of that subject. The implication behind this reality, would thus agree with Young's (2006) argument that was reviewed in the literature. Where Young (2006) argues that the knowledge pathway of the vocational curricula requires, from an instructional perspective, knowledge specialization of a person who would be within that industry or reconceptualised knowledge taught by an ex-professional. This could partially answer the complexity of the curricula that was raised by Gamble (2003) between the integration of theory and practice. Again, it negates Gamble's (2006) argument of context-dependent knowledge only being depended upon the context. The instructional method within the learning process of a context-independent instruction can give you skill(s) that could be found within a context-depending instruction.

As reviewed in the literature, each curriculum has its own instructional approach that will define the nature of instructional methods that would be utilized within that curriculum (Orstein and Hunkins, 1993; Reigeluth, 1999; Reigeluth and Carr-Chellman, 2009). At times, the nature of the curriculum has a tendency to define the instructional approach of the curriculum. The different types of approaches were discussed in the literature review by the authors found in Reigeluth and Carr-Chellman (2009). The study could not draw out a specific instructional approach of the curriculum based on the investigation of the recommended methods. Tests, Group work, Discussions and Exercises may well take place within a classroom setting or lecture theatre. According to Huitt et al. (2009) this may well be a Direct Approach to instruction. At the same time, the utilization of Group work and Discussions can be interpreted as a Discussion Approach to instruction, as stated by Gibson (2009). Instructional methods such as Case Studies, Assignments, Research, Presentations, Group work and Demonstrations can all be defined under the approach of Problem-Based instruction. Simulated Exercises, though only found in New Venture Creation and Applied Accounting, as well as Demonstrations and Role Plays, all fall within the ambit of a Simulated and Experiential Approach to instruction.

Rather it seems to be flexible to any form of approach that may suit the instructor's interpretation and or the instructional conditions. Based on the subject and assessment guidelines of the subjects that provide another dimension to instruction, the assessment of work is supposed to be 40% theory based and 60% practical in some levels and in other levels of some subjects its 60% theory and 40% practical, so there is no consistency throughout. The various assessments are to be implemented by the recommended instructional methods. Based on this information, the curriculum is intended to be more practical than theoretical at an instructional level. Gamble (2006) argues against the validity of this in the literature section of the study. She cites that the theory-practice combination of FET curriculums is that practical activity and work become reproduced written versions of theory from book knowledge, resulting in a lack of actual practical work. Subject guidelines indicate that each campus providing this curriculum should have a "practicum room for the learners to do their practical assessments", referred to as "Structured Environment" (DoE, 2007, pg 3). In this form, a Simulated Approach to instruction is adopted. The guidelines also provide the classroom as a

form of learning setting where instruction could take place and this could take the form of many approaches, particularly favouring the Direct Approach to instruction.

Evidentially, the curriculum has a diverse approach to instruction and this could largely be as a result of the fact that the instructional methods are being recommended to the instructor for utilization. So the possibilities are that the instructional approach of the curriculum will be largely determined by the instructional context rather than the way that it is prescribed. This has aspects of creating conflict within the dimension of what the official design may intend, whether direct or indirectly, and with what really happens on the implementation level. For example, an intention of a curriculum may be to be more experiential in nature, hence the Experiential Approach to Instruction so that the learner may be familiar with the principles of the working environment or that industry. At the implementation level what gets enacted is a Direct Approach to Instruction by the instructors, due largely to either ignorance or the instructional context not allowing for such an approach.

Gamble (2003) argued this very point, that vocational education approaches are already offering many ingredients and these approaches do not have the right combinations. Having diverse approaches to instruction of a national curriculum, as argued by Reed et al. (2012), can nullify the 'standardized' expectation of what is meant to be learned throughout a country and can create problems. Reed et al. (2012) in the literature do acknowledge that there are limitations of a national curriculum due to the existence of various factors within the instructional context, as put forth by Reigeluth and Carr-Chellman (2009).

The question for this section was: *Does the instructional approach promote an employability skills based curriculum?* The study has been instrumental in being able to draw out the existence of employability skills within the curriculum. From the study, the curriculum does have the potential of developing the learner with employability skills. There is a consistent focus on the learner, which means that the instructional methods need to be directed more towards the learner's development. However, the curriculum lacks a specific instructional approach to it which could not be found by this study.

7.4 Implications for future study

It has always been a known discourse that what is planned and that which gets implemented in reality do not always match. Based on the evidence of the study, the issue is not the curriculum but will be the interpretation of what instructional approach is going to be implemented within that instructional context. There are various factors that must be considered when it comes to the context, as held by Instructional Theory. The pedagogical aspect of the instructor is very critical within the interpretation process and their understanding of the objectives of the curriculum; the nature of the learner, their comprehension ability and ability to complete the task; the nature of the instructional setting and whether it affords the intention of the curriculum, as well as time factors that exist in completing the curriculum.

By 'interpretation process' it is meant how the instructor understands the various alignments between the Critical Development Outcomes, the Subject Outcomes and Learning Outcomes and how their instructional process fosters the achievement of these outcomes. So the pedagogical training of the instructor concerning the guidelines would be a possible dimension of further research. The study did not examine or investigate the instructional context of the curriculum but only examined the official curriculum. An examination of an instructional context would provide a picture of the reality of whether employability skills are being fostered in the process and if not, why this is the case. This further research will allow an understanding of how factors impact on the intention of the curriculum and how an official curriculum can be responsive the needs of instructional contexts or how instructional context can influence official design.

7.5 Limitations of the study

The study utilized one aspect of the instructional theory, and examined instructional methods alone without examining the instructional context. The tendency from this is that the study will reflect only an ideal situation of an instructional process without considering existing realities, meaning that this cannot illustrate a complete picture.

The study used an Australian employability framework to analyse the guidelines and gather its data. As much as there are similarities amongst the educational policies of the two countries, context and meaning can never be the same. Though the framework provided key phrases and terms in identifying the various employability skills, the matching of the terms and phrases with those in the outcomes required the researcher's interpretation and understanding of those terms found in the outcome and those provided by the framework. There could thus have been instances where a particular term that identified a particular employability skill could have been matched based on the researcher's understanding of the meaning.

So as to maintain consistency throughout the examination of the outcomes, the researcher formed frameworks that were an extension of the study's tools for collecting data. There was a uniform approach in investigating the skills found in the subjects, although one term in a subject could have a different meaning in another subject.

An FET course entails fundamental and core (vocational) subjects. This study only examined the core subjects and never considered the foundational subjects that are offered. The field of study of these vocational subjects was Business Studies, and the reality is that fields have different approaches to them. An Engineering curriculum has a different approach to a Business Studies curriculum and this study could not necessarily have an impact on what could be done in another field. Instructional contexts of subjects, amongst the vocational curriculums will vary upon the various occupational fields.

7.6 Conclusion

The findings show that the curriculum is outcomes-based and has a specific focus on the development of the learner. In an ideal situation, the learner will greatly benefit from these subjects. The instructional approach is going to be strongly driven by the instructor's understanding of the curriculum, with the instructor being given several methods to implement. The curriculum thus meets its official design of being flexible, as envisaged by the Department of Education (1998) in its Green Paper.

The official design of the curriculum has clearly kept an alignment and correlation between what is to be achieved by the Critical Development Outcomes, the Subject Outcomes and Learning Outcomes. All these outcomes were embedded with potential employability skills, meaning that the curriculum has the potential and capacity to create an employable person, while at the same time developing the learner as a responsible individual. The recommended instructional methods show relevance in the type of skills that are required to be fostered. What seemed to be lacking, based on the study, was a specific instructional approach for the curriculum.

What will be crucial going forward is that official curriculum designers need to know what instructional approach the curriculum is going to take. The methods that are going to be recommended must be in line with the instructional approach of the curriculum. Instructors need to be trained around the area of their subject guidelines and need to be able to link their methodology with the outcomes.

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22 November 2012

Mr Lethukuthula Mkhize 206521291
School of Education
Pietermaritzburg Campus

Dear Mr Mkhize

Protocol reference number: HSS/1278/012M

Project title: Examining instructional methods employed in the National Certificate Vocational (NCV) Finance, Economics and Accounting vocational subjects to promote employability skills


EXPEDITED APPROVAL

I wish to inform you that your application has been granted Full Approval through an expedited review process.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. Please note: Research data should be securely stored in the school/department for a period of 5 years.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully



.....
Professor Steven Collings (Chair)

/px

cc Supervisor Professor V Wedeking
cc Academic leader Dr D Davids
cc School Admin. Mrs S Naicker

Professor S Collings (Chair)
Humanities & Social Sc Research Ethics Committee
Westville Campus, Govan Mbeki Building

Postal Address: Private Bag X54001, Durban, 4000, South Africa

Telephone: +27 (0)31 260 3587/8350 Facsimile: +27 (0)31 260 4609 Email: ximbap@ukzn.ac.za / snymanm@ukzn.ac.za

Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville



1 June 2012

Mr Lethukuthula Mkhize

Dear Sir

RE: REQUEST FOR USING COLLEGE AS SITE OF RESEARCH

Your email dated 31 May 2012 refers:

Elangeni College has no objection to you using our campuses as sites of research for an Investigation into employability skills embedded in the National Certificate Vocational (NCV) Finance, Economics and Accounting vocational subjects to examine students' chances of employability

However, the following conditions for external research apply:

- The college will have the right to approve content with regard to research instruments and research analysis.
 - The relevant documents must be forwarded to the Rector and approval of usage will be given by the Rector in writing
- The name of the college or any of its sites cannot be used in any documents.
- The name/s of staff employed by the college cannot be used.
- The use of any findings that reflect negatively on the College, its partners or any related body must be approved in writing by the Rector.

Please note that failure to comply with all of the above conditions will result in the necessary legal action being taken against you.

Your cooperation in this regard will be highly appreciated

Yours sincerely



M.M. Peters
ACTING RECTOR

I have read the contents of this letter and I accept the conditions

NAME

SIGNATURE

DATE

Central Office 15 Portsmouth Road, Pinetown, 3600 Private Bag X9032, Pinetown 3610 Tel: 031 716 6700 Fax: 031 716 6777
www.efet.co.za

KwaMashu
F5 Malandela Road
KwaMashu
Tel: 031 503 9708

Mpumalanga
280 Shezi Main Road
Mpumalanga
Tel: 031 771 0148

Ntuzuma
Ithendele Drive
Ntuzuma
Tel: 031 509 1924

Pinetown
38 Bamboo Lane
Pinetown
Tel: 031 702 3260

Gadi
Zulu Reserve Road
Botha's Hill
Tel: 031 777 1742

Ndwedwe
Road P100
Ndwedwe
Tel: 082 572 7774



Australian Government
Department of Education,
Science and Training

Employability Skills

From Framework to Practice



➔ An Introductory Guide for Trainers
and Assessors



Developed by: Precision Consultancy
Suite 2, Level 5, 167–169 Queen Street
Melbourne VIC 3000
Tel: 03 9606 0118
www.precisionconsultancy.com.au

Precision Project Team: Mitch Cleary
Rosalie Flynn
Seth Thomasson

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Contents

1	Resource Overview	4
	Introduction	5
	Who is this guide for?	5
	How to use this guide	6
	Guide structure	6
2	Background and Fundamentals of Employability Skills	7
	History and Origins	8
	Key Competencies	9
	Employability Skills – ACCI/BCA	10
	Employability Skills – The Endorsed Approach	11
3	The Employability Skills	13
	Section Overview	14
	Communication	14
	Teamwork	16
	Problem Solving	18
	Initiative and Enterprise	20
	Planning and Organising	22
	Self-management	24
	Learning	26
	Technology	28
4	Unpacking Employability Skills	31
	How to Unpack Employability Skills	32
	How Employability Skills are Embedded	32
	Employability Skills Summary Example	34
	Examples of Embedded Employability Skills	36
	Dimensions of Competency	37
	Inter-relationships of Employability Skills	40
5	Employability Skills in Delivery and Assessment	45
	Employability Skills in Delivery	46
	Employability Skills in Assessment	48
	Contextualising Employability Skills	51
	Employability Skills and the AQTF	56
	Integrative Example	57
6	Resources	60
	Generic Skills	61
	Employability Skills	61
	Delivery	62
	Assessment	62
	Research and Policy	62
	Bibliography	62



Resource Overview





➔ Introduction

In 2002 The Business Council of Australia (BCA) and the Australian Chamber of Commerce and Industry (ACCI), with funding from the Department of Education, Science and Training (DEST) and the Australian National Training Authority (ANTA), published *Employability Skills for the Future (2002)*. This report was produced in consultation with other peak employer bodies and with the support of government. It indicated that the skills and knowledge contained in the Key Competencies needed to be revised and expanded to reflect the changing world of work and the broader range of skills which employers currently require.

Employability Skills, in and of themselves, are not a new concept. They describe non-technical skills and competencies that have always been an important part of effective and successful participation in the workplace. Their explicit inclusion in Training Packages represents the progression of competency based training into a system which develops the full range of transferable skills, attitudes and behaviour required for successful participation in the workplace.

What is new about Employability Skills is the emphasis they are being given. Enterprises are increasingly asking for Employability Skills, and as a result learners and candidates for assessment need to know what these skills are and how to demonstrate them.

Employability Skills are already an inherent part of all components of Training Packages and units of competency. Their inclusion, or embedding as it is sometimes referred to, highlights what these particular skills are in the context of particular job roles, as they are presented throughout the National Training System.

For those trainers, assessors and RTOs who are familiar with Key Competencies, Employability Skills will represent an opportunity to build on existing practices and techniques. Whether you are new to the VET sector or an experienced practitioner, Employability Skills are a meaningful tool. They assist learners and candidates for assessment to reflect on and/or demonstrate that they are not only technically competent, but also that they have the skills necessary to achieve and maintain successful employment outcomes.

➔ Who is this guide for?

This resource is written specifically for individuals who provide competency based training and assessment in the vocational education and training sector.

It is not explicitly written as a tool for those responsible for the professional development of trainers and assessors in RTOs. However, many of the activities and materials contained in this guide could easily be used in a professional development session.

Anyone with an interest in Employability Skills will find the guide written and structured in a manner which will provide enough information and background to understand the skills and their place in the VET sector.



→ How to use this guide

This guide is written as an introductory resource for Employability Skills. In addition to explaining what Employability Skills are, it outlines how they have been included in Training Packages.

It is not a comprehensive guide to writing learning and assessment activities and tools, but rather an aid to understanding Employability Skills and integrating them into training and assessment practice.

There are a series of reflective activities throughout this guide that assist you to confirm your understanding of Employability Skills. The activities provide an opportunity to practice the learning and assessment concepts and techniques presented in this resource.

→ Guide structure

This resource has the following key sections:

Background and Fundamentals

This section explores the history and concepts behind Employability Skills and how they differ from, and improve on, Key Competencies. It also describes the approach endorsed by the National Training Quality Council (NTQC) to incorporate Employability Skills into Training Packages. In 2006 the NTQC was replaced by the National Quality Council (NQC).

The Employability Skills

This section introduces each Employability Skill separately through the provision of:

- the endorsed definition of each Employability Skill
- a general summary of each skill's application in the workplace
- a unit of competency, drawn from various Training Packages to show how Employability Skills can be found, as well as some basic questions trainers and assessors can ask themselves to begin contextualising the skills
- a reflective exercise to consider each skill in the context of individual's own training and/or assessment practices.

Unpacking Employability Skills

Building on the basic knowledge covered in the previous chapters, this section highlights some further considerations in relation to identifying and working with Employability Skills as they are found in units of competency.

Employability Skills in Delivery and Assessment

This section provides practical advice and methods for incorporating Employability Skills into delivery and assessment approaches. It gives you the opportunity to look at some contextualised examples and to make links to your own areas of expertise.

Appendix 1 – Resources

The resources section provides some further reading about Employability Skills and related areas.



Background and Fundamentals of Employability Skills



→ History and Origins

Employability Skills, like Key Competencies before them, are specific conceptualisations of what are known more broadly as generic skills. They are also referred to as generic capabilities, enabling skills or even key skills. What they describe are non-technical skills and competencies which play a significant part in contributing to an individual's effective and successful participation in the workplace.

The use and popularity of concepts of generic skills has increased around the world, and particularly in Australia, since the 1980s. No matter where they have been adapted, or how they have been named, these conceptualisations of skills share a common goal. They seek to establish the basis for recognising an important set of skills which support the successful accomplishment of the task-based activities central to any job role.

While generic skills all have contextualised applications unique to a work-place and job role, it is important to keep in mind that they are also highly transferable. A generic skill learned or applied in one workplace will also be applicable in another. For example the teamwork skills utilised in a fast food environment are transferable and applicable to working as a waiter in a hotel. The environment and context of the job roles is different, but an understanding of the relationships between roles and team members is important to both. The success of an individual in a new job role is, in part, based on their ability to draw on previous experiences and relate them to the present situation. Table 1, below, outlines the elements which are commonly found in generic skill listings.

Table 1 *Common elements of various listings of generic skills*

- *Basic/fundamental Skills:* such as literacy, numeracy, using technology
- *People-related skills:* such as communication, interpersonal, teamwork, customer service skills
- *Conceptual/thinking skills:* such as collecting and organising information, problem-solving, planning and organising, learning-to-learn skills, thinking innovatively and creatively, systems thinking
- *Personal skills and attributes:* such as being responsible, resourceful and flexible, being able to manage one's own time, having self-esteem
- *Business skills:* such as innovation skills, enterprise skills
- *Community skills:* such as civic or citizenship knowledge and skills.

(Gibb 2004)

Reflective Activity

- 1** Review the types of generic skills listed in Table 1 and consider the role these skills play in your current job role.
- 2** Consider how your earlier job roles, and their generic skills, prepared you for your current role.



→ Key Competencies

The Mayer Committee report (1992) marked the beginning of the establishment of what was known as Key Competencies in Australian education. The Committee established the guiding principles to shape the conceptualisation of generic skills into the Key Competencies which would eventually find their way into Training Packages. Key Competencies were described as:

- essential to preparation for employment
- generic to the kinds of work and work organisation emerging in the range of occupations at entry levels within industry, rather than being occupation or industry specific
- equipping individuals to participate effectively in a wide range of social settings, including workplaces and adult life more generally
- involving the application of knowledge and skill
- being able to be learned
- being amenable to credible assessment.

(Gibb 2004)

Key Competencies were included in a table at the end of every unit of competency in a Training Package. The Key Competencies used in the Australian National Training System were:

- collect, analyse and organise information
- communicate ideas and information
- plan and organise activities
- work with others in teams
- use mathematical ideas and techniques
- solve problems
- use technology.

When included in a unit of competency, each Key Competency was also assigned one of three performance levels, as well as a zero to indicate where a particular Key Competency was not contained in a given unit of competency:

- Level 1 equivalent to the level of competency needed to undertake tasks effectively
- Level 2 equivalent to the ability to manage tasks
- Level 3 equivalent the ability to evaluate and reshape tasks.

Key Competencies heralded a new era in preparing learners for the reality of the workplace. However it became increasingly apparent that they needed, firstly, a considerable review or restructuring to meet the needs of the late twentieth century workforce and, secondly, much greater emphasis in the training system. Hence the evolution of Employability Skills.

→ Employability Skills – ACCI/BCA

The report *Employability Skills for the Future* (ACCI/BCA 2002) identified eight Employability Skills:

- communication
- teamwork
- problem solving
- initiative and enterprise
- planning and organising
- self-management
- learning
- technology.


Central to the identification of these eight skills was the realisation by employers that the skills emphasised by Key Competencies were no longer adequate. They were too generic in their approach and no longer reflected the needs of contemporary workplaces. After extensive consultation with industry and enterprises across Australia, the skills were identified and a framework was recommended.

The framework explains how Employability Skills, unlike Key Competencies, can be further contextualised and specified for the needs of particular industries and occupations. As you can see in Table 2, Employability Skills cover all of the skills articulated by Key Competencies and include some newly identified requirements as well.

Table 2 Mapping Key Competencies into Employability Skills

Key Competencies	Employability Skills
Communicate Ideas and Information	Communication
Work with others and in teams	Teamwork
Solve Problems	Problem Solving
Use Technology	Technology
Collect, Analyse and organise Information	Planning and organising
—	Initiative and enterprise
<i>Plan and organise activities</i>	Self-management
—	Learning
Use Mathematical Techniques and Ideas	<i>Contained within the descriptions of several of the other Employability Skills</i>

When analysing this table you should consider the way the Employability Skills relate to each other and at times overlap. For example, using technology may involve communication skills and combine an understanding of mathematical concepts.



It is also important to note that as Training Packages are systematically reviewed and updated to include Employability Skills, there will be a transition period where Training Packages import units that still contain information based on Key Competencies. Practitioners will need to have a good understanding of the relationship between Employability Skills and Key Competencies in order to develop relevant and valid learning and assessment strategies.

Finally, those of you familiar with Key Competencies will recall that for each unit, every key competency was assigned a level of performance from zero – three: zero indicating a particular key competency was not found in the unit and a three indicating that it was applied at an advanced level. This is no longer necessary, as Employability Skills are contextualised to the particular qualifications and job roles being described in each unit of competency. As such, the performance requirements of Employability Skills are defined within each unit and by the Australian Qualification Level (AQF) for which they are written and packaged for each qualification.

→ Employability Skills – The Endorsed Approach

The National Quality Council endorsed the approach to explicitly embed Employability Skills into Training Packages. Since then, the Department of Education, Science and Training (DEST) has been working with Industry Skills Councils (ISC) to ensure that Employability Skills are integrated into all nationally endorsed Training Packages. Employability Skills are considered to be explicitly embedded when units of competency are written in a manner which makes the relationships between Employability Skills and the other performance requirements clear and readily identifiable.

Following the endorsement of Employability Skills, Industry Skills Councils (ISC) began working with training package developers to map and embed these eight Employability Skills.

In order to achieve this, every ISC used the Employability Skills Framework from the *Employability Skills for the Future* report as a starting point. In many cases, the Framework was further modified to capture industry specific requirements. These requirements were then mapped to existing Training Packages and embedded and strengthened in units of competency.

The Facets and the Framework

Facets are specific examples of skills and behaviours which contribute to the overall application of a particular Employability Skill. The nature, emphasis and context of these facets will vary from one industry and application to the next.

Together, Employability Skills and their facets are referred to as the Employability Skills Framework (see page 12, Table 3). As a trainer or assessor, you will be required to design learning and assessment approaches that encompass the facets embedded in units of competency. This is explained in more detail in sections 3 and 4 of this resource.

Employability Skills Summary

Once the units of competency in a qualification have been mapped against the framework, an Employability Skills Summary is created for every qualification in a Training Package. Summaries broadly identify the application of each Employability Skill in the context of the job role(s) covered by the qualification. They are designed to assist you in identifying and including relevant industry applications of the Employability Skills into learning and assessment strategies. Employability Skills Summaries are discussed in more depth as part of the chapter titled, Unpacking Employability Skills.

Table 3 The ACC/BCA Employability Skills Framework

Communication	Teamwork	Problem solving	Initiative and enterprise	Planning and organising	Self-management	Learning	Technology
Listening and understanding	Working as an individual and a team member	Developing practical situations	Adapting to new situations – including changing work conditions	Managing time and priorities	Evaluating and monitoring own performance	Using a range of mediums to learn	Having a range of basic IT skills
Speaking clearly and directly	Applying teamwork to a range of situations	Solving problems in teams	Identifying opportunities not obvious to others	Collecting, analysing and organising information	Taking responsibility	Applying learning to technical issues and operations	Having the OHS knowledge to apply technology
Reading and interpreting documentation	Working with people of different ages, genders, races, religions or political persuasions	Showing independence and initiative in identifying problems and solving them	Being creative	Identifying contingency situations	Having knowledge and confidence in own vision and goals	Being open to new ideas and change	Having appropriate physical capacity
Using numeracy effectively	Coaching, mentoring and giving feedback	Resolving customer concerns in relation to complex project issues	Generating a range of options	Implementing contingency plans	Articulating own ideas and vision	Contributing to the learning community at the workplace	Operating equipment
Sharing information	Knowing how to define a role as part of a team	Using mathematics, including budgeting and financial management, to solve problems	Translating ideas into action	Being resourceful			Using IT to organise data
Being assertive	Identifying the strengths of team members	Testing assumptions, taking the context of data and circumstances into account		Allocating people and other resources to tasks			Applying IT as a management tool
Writing to the needs of the audience				Adapting resource allocations to cope with contingencies			
Empathising				Participating in continuous improvement and planning processes			
Negotiating responsively				Planning the use of resources including time management			
Persuading effectively				Developing a vision and a proactive plan to accompany it			
Establishing and using networks							

3

The Employability Skills





→ Section Overview

This section provides you with:

- the endorsed definition of each Employability Skill
- a general summary of each skill's application in the workplace
- a unit of competency, drawn from various Training Packages to show how Employability Skills can be found, as well as some basic questions you can ask yourself to begin contextualising the skills
- a reflective exercise to consider each skill in the context of your own training and/or assessment practices.

→ Communication

...that contributes to productive and harmonious relations between employees and customers

Communication is possibly the most prevalent of all the Employability Skills. Speaking, listening, reading and/or writing are central to all work practices and there are very few examples of units of competency which do not contain at least some aspects of **communication**.

Communication takes many forms to contribute to successful work outcomes, and may include:

- Creating documents – everything from maintenance documentation to in-depth research on the competition.
- Reading and interpreting documentation – this can include staying up to date with the latest policies and procedure manuals, or interpreting complex tender documentation.
- Oral communication – such as how to convey your message, or more complex skills like empathising or persuading that may be required for interactions with staff or customers.
- Information Communication Technology – even though technology exists as a separate Employability Skill, its inclusion here indicates the central role that technology plays in workplace communication.
- Language – this includes competency in English, or other relevant languages, as well as an ability to communicate effectively in environments where there are those who speak English as a second language.
- Numeracy – an ability to work with numbers and understand mathematical concepts is a skill area, much like language, which underpins an individual's ability to communicate.

Obviously **communication** has many layers and levels of complexity and you will need to determine the appropriate communication requirements for the units of competency or qualifications you are working with. For example, someone working towards a Certificate II in Hospitality might need communication skills to clarify orders with customers, pass on routine messages to staff and answer the phone. These are all fundamental communication skills. By comparison, though, a learner in a program for a Diploma in Hospitality would need more sophisticated communication skills, as they may need to respond to customer complaints, address staff conflict or make presentations to groups.



As a trainer or assessor, you need to understand the job roles and work environments of your learners and candidates for assessment, and to ensure that learning and assessment strategies address the levels of performance stated in the unit and the workplace context.

Here is an example of part of a unit of competency which shows how **communication** skills are located in the unit. Some relevant considerations for you, as a trainer or assessor, are included.

The unit is taken from the Extractive Industry Training Package and is packaged within a Certificate II qualification.

MNQGEN230A CONTRIBUTE TO SITE QUALITY OUTCOMES	
Unit Descriptor This unit covers the planning, preparation and application of site quality system by an individual on a work site.	
Element	Performance criteria
1. Plan and prepare for quality outcomes.	1.1 Access, interpret and clarify the relevant quality procedures.
	1.2 Identify and agree on performance indicators for individual work with the appropriate persons.
	1.3 Prepare work plans that will facilitate the achievement of quality standards.
2. Apply quality systems to individual work activities	2.1 Carry out work to relevant quality procedures.
	2.2 Monitor quality of outputs and report non-conformance and/or implement necessary changes in accordance with site procedures.
	2.3 Adjust and agree on performance indicators to meet changing circumstances with appropriate person.
	2.4 Monitor work processes, report incidents and apply local risk control processes to minimise quality non-conformance.
	2.5 Communicate and resolve quality systems and procedure improvements with relevant people.
	2.6 Complete relevant quality documentation in accordance with site requirements.

Considerations for Trainers and Assessors

Relevant questions for trainers and assessors:

How are procedures communicated and accessed?

How are performance indicators communicated and agreed on?

What communication processes contribute to the preparation of work plans?

Considerations for Trainers and Assessors

How are outputs/processes monitored and reported?

What communication processes are used to agree on the adjustment of performance indicators?

What types of information are required to complete quality documentation?



Reflective Activity – Communication

- 1** Select a unit of competency, or a group of units, with which you are familiar.
- 2** Read through the unit(s) and highlight which parts related to communication and its various facets. Explain what role communication plays in each instance.
- 3** Consider the learning and or assessment activities you currently use for the unit(s), and answer the following questions:
 - a. Have I adequately considered communication skills in my training and assessment practice?
 - b. What can I do to better address communication skills for this unit/these units?

→ Teamwork

...that contributes to productive working relationships and outcomes

Teamwork recognises the importance of relationships with others in the workplace. There are very few tasks and roles which occur in isolation, but even these require at least some degree of relationship with customers and/or supervisors or an understanding of how the work being done contributes to an overall goal or target.

Structural change, the growing complexity and diversity of services and products being provided, the use of outsourced providers, workplace flexibility and multiskilling are just some of the factors influencing the increased requirements for teamwork. All of these changes require workers to be able to function well as part of a team.

Some of the **teamwork** skills learners may need to develop include:

- Supporting team members – this typically needs to be done by supervisors as well as team members. Supervisors may need to monitor worker progress and provide assistance where necessary, and team members may need to see where there are bottlenecks in the work and help each other out.
- Contributing to positive team dynamics – this is a responsibility for all team members, and includes dealing appropriately with conflict.
- Understanding one's relationship and accountability to other team members.
- Working with people who vary in their age, gender, race, religion or political persuasion.
- Working autonomously in the interest of shared team goals and objectives.

The importance of **teamwork** will vary depending on the given job role. Some work requires almost constant interaction and the work is highly interdependent on other people. For example, a ward assistant in a busy public hospital would need to work closely with nursing staff and other health and administrative staff every day. However, some job roles will be quite different in their requirements for teamwork and people will have quite discrete and isolated tasks. A pastry cook, for example, may need to work early shifts, be relatively self-directed and work independently.

It is important that you understand the job roles and work environments of your learners and candidates for assessment, and ensure that your learning and assessment strategies address the levels of performance stated in the unit and the workplace context.



Here is an example of part of a unit of competency which illustrates some of the questions you would need to consider in relation to **teamwork**. The unit is taken from the Asset Maintenance Training Package and is packaged within a Certificate IV qualification.

PRMWM52A ORGANISE WASTE MANAGEMENT OPERATION	
Element	Performance criteria
1. Identify work requirements	1.1 Review work site specifications to identify requirements
	1.2 Identify client needs and expectations
	1.3 Identify site characteristics and special requirements for waste management
	1.4 Conduct hazard and risk analysis to identify all OHS and personal protective equipment requirements in accordance with company requirements, OHS regulations and other relevant legislation and report to appropriate personnel
2. Organise equipment and materials	2.1 Estimate plant and equipment and materials requirements in line with past usage and present needs
	2.2 Ensure the availability of the required equipment and material
	2.3 Check plant and equipment to ensure it is in good working order in accordance with manufacturers' specifications, relevant legislation and company requirements
3. Allocate work areas and activities	3.1 Ensure work is scheduled and allocated to be completed within time available
	3.2 Allocate work by considering factors such as individuals' competency level and their capacity to complete work requirements within relevant legislation, OHS procedures and company requirements
	3.3 Ensure licences appropriate to the work being performed are held in accordance with relevant legislation and company requirements
	3.4 Allocate work within approved company budget levels
	3.5 Develop site safety plan which identifies all relevant site safety features in accordance with company and OHS requirements
	3.6 Communicate work requirements to personnel in a manner suitable to the situation to ensure instructions are understood, verified and confirmed
4. Monitor progress of work and allocate resources	4.1 Identify personnel skill gaps
	4.2 Provide appropriate on-the-job training to fill identified skill gaps and improve work performance
	4.3 Provide opportunities for personnel to ask questions and seek clarification on training and work performance matters
	4.4 Provide assistance to personnel to ensure compliance with work site requirements
	4.5 Undertake relevant work assessments in accordance with industry and company requirements
5. Document waste management organisational plan	5.1 Document all details of waste management organisational plan accurately and promptly, in accordance with company requirements and relevant legislation

Considerations for Trainers and Assessors

How will work be allocated and what teamwork skills are required for the allocation of work?

Considerations for Trainers and Assessors

What skills are required to effectively monitor the progress of this work?

What feedback will team members need about their work and how will it be provided?



Reflective Activity – Teamwork

- 1** Select a unit of competency, or a group of units, with which you are familiar.
- 2** Read through the unit(s) and highlight which parts relate to teamwork and its various facets. Explain what role teamwork plays in each instance.
- 3** Consider the learning and or assessment activities you currently use for the unit(s), and answer the following questions:
 - a. Have I adequately considered teamwork skills in my training and assessment practice?
 - b. What can I do to better address teamwork skills for this unit/these units?

➔ Problem Solving

...that contributes to productive outcomes

At its simplest, **problem solving** can be described as seeing that something is wrong and fixing it. At a more complex level, problem solving can include processes to identify problems; for example, risk management and quality assurance. Initiative was identified in the initial report as an important facet of problem solving as it allows individuals to take steps to solve problems, with or without input from supervisors, before they impact on production or service delivery.

Some of the ways in which **problem solving** is used in the workplace are:

- In contingency situations – when staff are required to identify and resolve non-standard situations which may arise.
- Using troubleshooting equipment – including standard checks and maintenance as well as addressing breakdowns that may occur in the course of use.
- Providing customer service – working with customers to resolve problems and provide options for complaints resolution.
- For planning, strategy and resource allocation, which contribute to the avoidance or resolution of contingency situations.
- For continuous improvement processes – an important means to ensure that key lessons are learned and integrated following workplace problems.
- Research, which is a problem solving process in and of itself, and can also contribute to effective resolution of problems.

Problem solving is an important part of any job role but higher levels of problem solving are required of people who are working towards a Diploma, as compared to those working towards Certificate II. For example, someone enrolled in a Certificate II in Transport and Distribution (Rail Freight Services) would need good basic **problem solving** to deal with delays and equipment breakdowns and to manage contingencies. By contrast, someone enrolled in the Diploma of Logistics Management would need to have high level problem solving skills to deal with a situation when a ship's cargo is lost at sea.



You must understand the job roles and work environments of your learners and assessees, and ensure that your learning and assessment strategies address the levels of performance stated in the unit and the workplace context.

Here is an example of part of a unit of competency which illustrates some of the questions you would need to consider in relation to **problem solving**.

The unit is taken from the Community Services Training Package and is packaged within an Advanced Diploma qualification.

CHCRF23B RESPOND TO PROBLEMS AND COMPLAINTS ABOUT THE SERVICE

Unit Descriptor

This unit describes the requirements for effectively resolving grievances and complaints about the service.

Element	Performance criteria
1. Respond to a family member's concerns about their child	1.1 Observations about the child in the service is provided as relevant. 1.2 Feedback and views of all workers involved with the child are collated and presented. 1.3 Concern is discussed and the key issue/s are identified with the person. 1.4 Possible actions are discussed and a decision reached together. 1.5 Appropriate communication strategies are used.
2. Manage and resolve grievances and complaints	2.1 Listens respectfully to person's concerns. 2.2 People are informed of avenues for complaint. 2.3 Issues underlying the complaint are identified, investigated and discussed according to guidelines. 2.4 Action is taken as quickly as is required by the situation. 2.5 Complaint process is explained and the complainant informed of what can and cannot be expected from the process. 2.6 Complaint is referred to appropriate procedures or forums as appropriate.
3. Effect resolution of complaints	3.1 Confidentiality and the rights of others are made clear to parties and protected during the process. 3.2 Advice is sought as required. 3.3 Options are generated and resolution facilitated. 3.4 Mediation between parties concerned is facilitated as relevant. 3.5 Resolution or an agreement to set aside issues is obtained. 3.6 Process and outcomes are recorded according to the organisation's procedures.
4. Monitor and evaluate service	4.1 Feedback about suggestions for improved practice or procedures are considered and implemented as appropriate. 4.2 Information to clarify service practices and procedures is developed and provided, as relevant.

Considerations for Trainers and Assessors

What techniques are used to analyse and clarify the problem with the family members?

Having clarified the concern, what skills and knowledge are required to gather further information about these concerns?

Considerations for Trainers and Assessors

What skills and knowledge are required to effectively resolve complaints?

Do my learning and assessment strategies assist learners to practice and demonstrate mediation/ resolution techniques?



Reflective Activity – Problem Solving

- 1** Select a unit of competency, or a group of units, with which you are familiar.
- 2** Read through the unit(s) and highlight which parts relate to problem solving and its various facets. Explain what role problem solving plays in each instance.
- 3** Consider the learning and or assessment activities you currently use for the unit(s), and answer the following questions:
 - a. Have I adequately considered problem solving skills in my training and assessment practice?
 - b. What can I do to better address problem solving skills for this unit/these units?

➔ Initiative and Enterprise

...that contributes to innovative outcomes

While initiative has been identified as an important facet within problem solving, it has also been included as an important skill in its own right. The inclusion of **initiative and enterprise** on its own reflects the importance many employers place on employees determining how to best achieve work-related outcomes without close and detailed supervision. Work-places with tighter control mechanisms may place a lower emphasis on initiative and may be characterised by a limited number of facets or, in some extreme cases, by the absence of these facets. **Initiative and enterprise** relates to:

- Change Management – both individual responses to change within the organisation and in leadership skills demonstrated in implementing change.
- Identifying opportunities – all members of an organisation or team should be encouraged to share ideas to improve work practices and opportunities for the growth of the organisation.
- Reflecting on one's own practice for improvement – this is the ability to critically reflect on and evaluate one's own work habits. It is an important step toward fostering an innovative work-place.
- Engaging colleagues – an innovative work-place culture is one where all individuals actively engage with other colleagues in sharing work-place knowledge.
- Adapting to new situations.

Employees who demonstrate initiative are more likely to be considered for promotion and offered opportunities for career advancement. Employees can show **initiative and enterprise** at all levels by suggesting ways to work more effectively, to reduce costs, to reduce complaints and to improve service.

You must understand the job roles and work environments of your learners and candidates for assessment, and ensure that your learning and assessment strategies address the levels of performance stated in the unit and the workplace context.



Here is an example of part of a unit of competency which illustrates some of the questions you would need to consider in relation to ***initiative and enterprise***. The unit comes from the Business Services Training Package where it is found in an Advanced Diploma.

BSBHR605A CONTRIBUTE TO ORGANISATION DESIGN

Unit Descriptor

This unit covers the review stage which precedes any organisational design activity. It then deals with the development of appropriate planning tools for organisation redesign and the implementation and evaluation of those plans. This unit is related to BSBMGT601A Contribute to strategic direction and BSBHR602A Participate in human resource strategic planning. Consider co-assessment with BSBHR601A Facilitate change and BSBHR603A Contribute to organisation development.

Element	Performance criteria
1. Review organisation design	<p>1.1 Strategic plans are analysed to identify any need/opportunity to improve the organisation design</p> <p>1.2 Operational results are analysed to identify any need to redesign the organisation to improve performance</p> <p>1.3 Relevant groups and individuals are consulted to identify need/opportunity to improve organisation design</p> <p>1.4 Opportunities for improved synergy in the organisation's performance are identified</p> <p>1.5 Under performance, linked to specialisation, departmentation, co-ordination or control is identified and documented</p>
2. Develop organisation redesign plan	<p>2.1 Objectives for organisation redesign are developed</p> <p>2.2 Processes for evaluating the outcomes of the redesign are agreed</p> <p>2.3 Relevant groups and individuals are consulted and their input sought on redesign options</p> <p>2.4 A range of redesign options are developed which achieve the redesign objectives</p> <p>2.5 Options are subjected to cost/benefit analysis and risk analysis</p> <p>2.6 Options are considered by relevant decision makers and the most effective option is chosen</p>
3. Job redesign and work reorganisation is undertaken as necessary to support the organisation redesign	<p>3.1 Communication/education activities are undertaken in accordance with the plan</p> <p>3.2 Training programs are delivered as required</p> <p>3.3 Individuals and groups move to new positions if required by the redesign plan</p> <p>3.4 New systems and procedures are introduced in accordance with the redesign plan</p> <p>3.5 Implementation is monitored and evaluated throughout</p> <p>3.6 Remedial action is taken where there is variation from the plan or objectives are not being achieved</p> <p>3.7 Evaluation is undertaken at the completion of the redesign project and documented with recommendations for improvements to the process if appropriate</p>

Considerations for Trainers and Assessors

What skills and knowledge are required to bring others along with the change process?

What challenges would the learner face in the workplace?

How can I build this into my learning and assessment?

Considerations for Trainers and Assessors

What initiative and enterprise skills will be required to generate alternative plans?

What creative thinking techniques are required to develop plans?



Reflective Activity – Initiative and enterprise

- 1** Select a unit of competency, or a group of units, with which you are familiar.
- 2** Read through the unit(s) and highlight which parts relate to initiative and enterprise and its various facets. Explain what role initiative and enterprise plays in each instance.
- 3** Consider the learning and or assessment activities you currently use for the unit(s), and answer the following questions:
 - a. Have I adequately considered initiative and enterprise skills in my training and assessment practice?
 - b. What can I do to better address initiative and enterprise skills for this unit/these units?

→ Planning and Organising

...that contribute to long-term and short-term strategic planning

Planning and organising reflects an individual's ability to manage the tasks and timelines which define their work roles. This has also been identified as one of the Employability Skill areas which benefits the most from on-the-job experience.

Planning and organising can apply to:

- Time management – an individual's ability to meet time based requirements and deadlines
- Project management skills – an ability to manage multiple tasks and resources simultaneously
- Planning, strategy and resource allocation – participating in and leading processes which contribute to the establishment of key directions for the organisation
- Achieving goals and targets – an ability to complete the tasks assigned
- Research – collecting, analysing and organising information to inform subsequent work processes
- Scheduling – tasks, rosters or delivery, for example.

Even school learners need to demonstrate **planning and organising** skills to manage their study and to submit homework and assessment tasks. In the workplace we have seen the requirement for these skills increase. Planning and organising are part of jobs such as stacking supermarket shelves, scheduling deliveries by couriers and prioritising clients. Managers need to plan and organise others as well as themselves. It is almost impossible to think of a job role where **planning and organising** is not a critical function. The unit below shows how **planning and organising** is central to a specific work task from the Metalliferous Mining Training Package.



You need to understand the job roles and work environments of your learners and candidates for assessment, and ensure that your learning and assessment strategies address the levels of performance stated in the unit and the workplace context.

Here is an example of part of a unit of competency which illustrates some of the questions you would need to consider in relation to **planning and organising**. The unit comes from the Metalliferous Mining Training Package and is packaged within a Certificate II qualification.

MNMOMS203A POSITION AND SET UP MOBILE LIGHTING

Unit Descriptor

This unit applies in all contexts to the organisation and positioning of lighting in the extractive process in the open cut environment.

Element	Performance criteria
1. Prepare for mobile lighting	<ul style="list-style-type: none">1.1 Plan and prepare work according to site procedures and relevant legislation1.2 Receive, interpret and clarify shift change over details1.3 Select appropriate type of equipment and/or attachments according to job specifications and to maximise efficiency and effectiveness of work activities1.4 Identify, address and report potential risks and hazards1.5 Select personal protective equipment appropriate for work activities1.6 Conduct equipment pre-start checks to ensure equipment is ready for operation1.7 Secure all equipment in preparation for towing in accordance with site procedures1.8 Identify, address and report environmental issues1.9 Communicate with other personnel using approved communication methods1.10 Adhere to emergency procedures to ensure safety of personnel, plant and equipment
2. Position and activate lighting	<ul style="list-style-type: none">2.1 Isolate area using physical barricades and signage2.2 Position lighting to suit work activities and site conditions2.3 Test lights according to schedule, to include start-up and shut down procedures2.4 Activate lights according to schedule2.5 Enhance visibility of site according to the position of the lighting.2.6 Reassess risk to ensure enhanced illumination does not adversely affect safety of persons in the area

Considerations for Trainers and Assessors

What would the logical steps be in preparing for mobile lighting?

Whose schedules would you need to consult to coordinate this process?

How long should you allocate to the task and why?



Reflective Activity – Planning and organising

- 1** Select a unit of competency, or a group of units, with which you are familiar.
- 2** Read through the units and highlight which parts relate to planning and organising and its various facets. Explain what role planning and organising play in each instance.
- 3** Consider the learning and or assessment activities you currently use for the unit(s), and answer the following questions:
 - a. Have I adequately considered planning and organising skills in my training and assessment practice?
 - b. What can I do to better address planning and organising skills for this unit/these units?

➔ Self-management

...that contributes to employee satisfaction and growth

Self-management refers to an individual's ability to manage themselves in relation to the outcomes expected of their work role. Individuals must increasingly take responsibility for their own performance. The ways in which they do this can include:

- Assessing and evaluating their own performance to identify areas for improvement
- Identifying and seeking out appropriate development opportunities, both internal and external to the organisation
- Eliciting feedback, as appropriate from peers, subordinates and superiors
- Knowing the organisation, the work role, and its limits of authority
- Working safely.

Self-management is linked to planning and organising, but also describes our ability to know who we are and what we want. A person with good self-management skills will have clear priorities and be able to critically review their strengths and weaknesses. As the world of work changes, self-management skills will become increasingly important for individuals to negotiate their path between job roles and employers.

You must understand the job roles and work environments of your learners and candidates for assessment, and ensure that your learning and assessment strategies address the levels of performance stated in the unit and the workplace context.

Here is an example of part of a unit of competency which illustrates some of the questions you would need to consider in relation to **self-management**. The unit is taken from the Local Government Training Package and is packaged within a Certificate II qualification.

LGACORE104A**WORK EFFECTIVELY IN THE LOCAL GOVERNMENT CONTEXT****Unit Descriptor**

This unit covers accepting responsibility for and managing own work in a Local Government environment.

Element	Performance criteria
1. Apply knowledge and understanding of Council responsibilities and structure to work	<p>1.1 Work reflects understanding of relationship between elected members and Council staff</p> <p>1.2 Responsibilities and duties are performed in accordance with Council policies and procedures</p>
2. Accept responsibility for quality of own work	<p>2.1 Work area is well organised and safe and is in accordance with relevant standards and policies</p> <p>2.2 Own work is monitored and adjusted according to requirements for job quality, customer service, public responsibility and resource use</p> <p>2.3 Council's code of conduct is adhered to</p> <p>2.4 Variations in the quality of service and/or products from required standards are detected and reported in accordance with Council procedures</p> <p>2.5 Quality improvement tools and techniques are used both individually and as part of a team to systematically improve the quality of work and services</p>
3. Manage own work	<p>3.1 Instructions are interpreted correctly and checked against prescribed scope and standard of work</p> <p>3.2 Factors affecting work requirements are identified and appropriate action is taken</p> <p>3.3 Work load is assessed and prioritised within allocated timeframes</p> <p>3.4 The need for additional support to improve performance is communicated clearly to the appropriate person</p>
4. Maintain public safety	<p>4.1 Potential health and/or safety hazards are identified and responded to in line with Council procedures</p> <p>4.2 Emergency situations are quickly and correctly recognised, assessed and responded to in line with Council procedures</p> <p>4.3 The potential effect of incidents on different customers, including those with special needs, is taken into account in determining appropriate action</p> <p>4.4 Requests for assistance from other staff or the public are responded to promptly and appropriately</p> <p>4.5 Reports on accidents and incidents are provided in accordance with Council and legal requirements</p> <p>4.6 Reports are accurate and comprehensive and clearly distinguish fact and opinion</p>

Considerations for Trainers and Assessors

What skills and knowledge are required to check work is being completed to standard?

What critical thinking is required to make quality judgments about the work?

What are the limits of authority, and the requirements for being proactive?

Considerations for Trainers and Assessors

What techniques for managing workloads can be included in learning strategies?



Considerations for Trainers and Assessors

What self-management skills are required to identify environmental risks and sustainable work practices and to review procedures?

Element	Performance criteria
5. Implement environmental procedures	5.1 Environmental risks and/or impacts relevant to the specific work being undertaken are identified
	5.2 All work activities are carried out in accordance with relevant environmental procedures including sustainable energy work practice
	5.3 Environmental risks and incidents are dealt with, recorded and/or reported according to Council and workplace procedures
	5.4 Contribution to the review of environmental procedures is made within limits of responsibility
	6.1 Implications of external change on the Council are identified
	6.2 Implications of change in the workplace on own job are identified
	6.3 Agreed changes to improve work outcomes are acted upon
	6.4 Appropriate avenues are accessed to provide suggestions for improvements
	6.5 Suggestions for improving the work are contributed in a constructive way

Reflective Activity – Self-management

- 1** Select a unit of competency, or a group of units, with which you are familiar.
- 2** Read through the unit(s) and highlight which parts relate to self-management and its various facets. Explain what role self-management plays in each instance.
- 3** Consider the learning and or assessment activities you currently use for the unit(s), and answer the following questions:
 - a. Have I adequately considered self-management skills in my training and assessment practice?
 - b. What can I do to better address self-management skills for this unit/these units?

→ Learning

...that contributes to ongoing improvement and expansion in employee and company operations and outcomes

The inclusion of **learning** recognises the importance of using work experiences to extend and develop new skills. It recognises that learning is a continual process that takes many forms in the workplace and includes:

- Learning from past experience so that new and better ways of working are practised
- Individuals taking responsibility for strengthening their skill base so that they can move their career in the direction they want



- Managers knowing the strengths and weaknesses of their employees and assisting them to build their skills for their job and for career development
- Contributing to a learning environment through openly sharing knowledge and experiences
- Developing an awareness of learning methods and options, such as training, shadowing others, job rotation, online options, coaching and mentoring
- Actively using feedback from managers, subordinates and peers to improve performance
- Keeping well informed of updates and changes to organisational policies, procedures and regulations.

Learning is an ongoing process in the workplace and does not only occur when taking up a new role. Employees are increasingly expected to improve and alter working practices based on what they have learnt from everyday experiences, as well as more formal and structured training and education.

You must understand the job roles and work environments of your learners and candidates for assessment, and ensure that your learning and assessment strategies address the levels of performance stated in the unit and the workplace context.

Here is an example of part of a unit of competency which illustrates some of the questions you would need to consider in relation to **learning**. The unit comes from the Outdoor Recreation Industry Training Package and is packaged within a Certificate III qualification.

SROEQ0003A

SUPERVISE HORSE HANDLING

Unit Descriptor

This unit has been developed for the Outdoor Recreation Industry Training Package. It refers to assisting and supervising others to identify and safely catch, control and handle horses. The competencies operate in work environments of racing stables, paddocks, yards, racecourses, and in public areas.

Element	Performance criteria
1. Assist others to identify and safely catch, control and handle horses	1.1 Receive and then give instructions to others regarding the catching and controlling of horses as required
	1.2 Provide assistance and supervision to others in the identification, catching and controlling of horses according to organisational procedures
	1.3 Identify the purpose of different gear as used to control and handle horses
	1.4 Assess competence of self with regard to safe handling of very difficult/dangerous horses and seek assistance where necessary
	1.5 Provide instructions regarding the catching and controlling of horses as required by the organisation to others
	1.6 Identify competence of other workers with regard to individual horses and delegate minor tasks/roles accordingly

Considerations for Trainers and Assessors

What skills are required to help others to do this task well?

What are the learning styles of the people being instructed and what adaptations may be required to accommodate these differences?

What strategies or approaches will be used to assist those who need additional support?



Reflective Activity – Learning

- 1** Select a unit of competency, or a group of units, with which you are familiar.
- 2** Read through the unit(s) and highlight which parts relate to learning and its various facets. Explain what role learning plays in each instance.
- 3** Consider the learning and or assessment activities you currently use for the unit(s), and answer the following questions:
 - a. Have I adequately considered learning skills in my training and assessment practice?
 - b. What can I do to better address learning skills for this unit/these units?

→ Technology

...that contributes to effective execution of tasks

The inclusion of **technology** as an Employability Skill recognises the importance that technology plays not just as a task skill, but in a range of functions performed in the workplace. This Employability Skill includes the more traditional forms of information technology and the skills needed to work with other equipment and machinery.

In the workplace we would see this skill applied when people are:

- Using information technology to assist in communication and support management and planning functions
- Operating machinery and technologies which assist in the completion of routine, heavy or complex tasks
- Troubleshooting machinery and technology
- Applying OHS knowledge to appropriately use technology, be it information technology or machinery.

It is hard to think of jobs in Australia that do not rely on the use of technology in some way. Despite the prevalence of information technology specialists, in big business or operating small companies, everyone needs to continue to develop proficiencies in new and emerging technologies.

The unit below shows how **technology** sits behind many tasks that do not have an obvious **technology** focus. It includes some questions that trainers and assessors might ask themselves when working with the unit.

You need to understand the job roles and work environments of your learners and candidates for assessment, and ensure that your learning and assessment strategies address the levels of performance stated in the unit and the workplace context.



Here is an example of part of a unit of competency which illustrates some of the questions you would need to consider relation to **technology**. The unit comes from the Textiles, Clothing and Footwear Training Package and is packaged with in a Certificate I qualification.

LMPRLA09A

INSPECT, FOLD AND PACK THEATRE LINEN

Unit Descriptor

This unit covers the final checking and inspection of clean theatre linen to ensure customer requirements and quality standards have been met. It includes the sorting, folding and packing processes.

Element	Performance criteria
1. Check and classify cleaned theatre linen	1.1 Environmental standards for packing of theatre linen are applied and maintained 1.2 Clean theatre linen is checked for grease/stains/lint, identifying markers, damage and/or quality/wear in accordance with enterprise procedures 1.3 Reject linen is classified for rework, where required
2. Fold theatre linen	2.1 Product is folded according to hospital theatre specifications and/or relevant Australian Standards 2.2 Hospital and laundry linen coding systems are applied
3. Pack product for	3.1 Package content requirements are determined 3.2 Packs are configured according to hospital theatre and laundry procedures 3.3 Packs are wrapped according to hospital theatre requirements/specifications 3.4 Final finish of theatre packs is assessed in accordance with enterprise procedures 3.5 Packed product is recorded and documented according to laundry requirements
4. Dispatch product	4.1 Protective covering requirements for products are determined 4.2 Products are loaded into transport equipment using safe manual handling techniques 4.3 Orders are assigned according to transport requirements

Considerations for Trainers and Assessors

What technology will be encountered when completing this task in the workplace?

What skills and knowledge are required in order to operate technology to fold, store and code linen?

Considerations for Trainers and Assessors

What equipment is used for safe manual handling?

What computer systems record orders?

What skills are required to work with the system?



Reflective Activity – Technology

- 1** Select a unit of competency, or a group of units, with which you are familiar.
- 2** Read through the unit(s) and highlight which parts relate to technology and its various facets. Explain what role technology plays in each instance.
- 3** Consider the learning and or assessment activities you currently use for the unit(s), and answer the following questions:
 - a.** Have I adequately considered technology skills in my training and assessment practice?
 - b.** What can I do to better address technology skills for this unit/these units?

4

Unpacking Employability Skills





→ How to Unpack Employability Skills

Unpacking is the term commonly used in the VET sector to describe the process of relating the information described in units of competency to the specific context and setting in which they will be delivered or assessed.

Good unpacking practice works to provide relevant context and setting details in relation to the following information contained in units of competency:

- the kinds of skills/knowledge and their application in workplace activities
- the indicators that show how someone performs these activities well
- the required work competencies as outlined by employers and workers
- the criteria used for assessment of competence.

Developing valid, reliable learning and assessment approaches that encompass Employability Skills will require trainers and assessors to extend the concept of unpacking units of competency to include Employability Skills. This can be achieved through understanding the following concepts:

- how Employability Skills are embedded in units
- the relationship between Employability Skills and the dimensions of competency
- the interrelationships between Employability Skills.

→ How Employability Skills are Embedded

As a trainer or assessor, it is important that you recognise that Employability Skills are not described as a discrete requirement contained in units of competency (as was the case with Key Competencies). Employability Skills are specifically expressed in the context of the work outcomes described in units of competency, and they appear in Elements, Performance Criteria, Range Statements and Evidence Guides. You will need to analyse each component of the unit of competency to design and build learning and assessment approaches.

Explaining Embedding

Employability Skills must be both explicit and embedded within units of competency. This means that Employability Skills will be:

- contained in the units as part of the other performance requirements that make up the competency as a whole
- explicitly described within units to enable users of Training Packages to accurately identify the performance requirements of each unit with regard to Employability Skills.

Employability Skills must be well defined and written into units of competency to ensure that they are apparent, clear and can be delivered and assessed as an essential component of the workplace competency.



Employability Skills Statement

Each unit of competency that contains Employability Skills contains a standard statement directing trainers and assessors to consider the information contained in the Employability Skills Summary for the qualification in which the unit will be packaged. Users of Training Packages will see the following Employability Skills statement:

Employability Skills The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements.

This statement shows that this unit contains Employability Skills facets that have been reviewed and verified by industry. When this unit is delivered and assessed as part of a qualification, the Employability Skills Summary for the qualification, in which the unit is packaged, will provide further industry advice.

Employability Skills Summaries

An Employability Skills Summary describes the broad industry requirements that are further explained as measurable outcomes of performance in the unit of competency for each qualification. The detail in each summary must be broad as each qualification may have numerous packaging options.

To further assist you, as a trainer or assessor, Employability Skills Summaries have been included in Training Packages and describe the industry context for the application of Employability Skills at the qualification level. Summaries capture the key aspects, or facets, of each Employability Skill that are important in the job roles covered by the qualification.

You should use summaries to confirm that learning and assessment approaches contain the appropriate mix and importance of Employability Skills in the general context of the industry or industries covered by the qualification. They are not exhaustive lists or checklists for performance.

The following is important information about Employability Skills Summaries:

- Summaries provide examples of how each skill is applicable to the job-role(s) covered by the qualification.
- Summaries contain general information about industry context, which is further explained as measurable outcomes of performance in the unit of competency for each qualification.
- The detail in each Summary will vary depending on the range of job roles covered by the qualification in question. For example, a cross-sectoral qualification such as the Certificate IV in Frontline Management will contain information in the Summary that is general in nature. However, a Summary for the Certificate IV in Funeral Services (Grounds and Maintenance) will include more specific information about how Employability Skills are described in the context of the workplace.
- Summaries are not exhaustive lists of qualification requirements or checklists of performance. Such lists are separate assessment tools that should be designed by you after analysis at the unit level.

On the following page is an example of an Employability Skills Summary.

→ Employability Skills Summary Example

TDM10106 - Certificate I in Transport and Distribution (Coastal Maritime Operations)

The following table contains a summary of the Employability Skills as identified by the Maritime Industry for this qualification. This table should be interpreted in conjunction with the detailed requirements of each unit of competency packaged in this qualification. The outcomes described here are broad industry requirements that may vary depending on packaging options.

Text in the right hand column will change for each qualification and may be bullet points or a paragraph describing the broad industry context for each Employability Skill. The Summaries have been designed to assist you to confirm that you have included the important industry expectations when delivering learning and assessment that leads to the attainment of qualifications.

Employability Skill	Industry/enterprise requirements for this qualification include:
Communication	<ul style="list-style-type: none">• Interpreting and carrying out verbal instructions from other crew members• Reading and interpreting basic documents such as routine operating instructions, workplace signage, work schedules and rosters• Providing information to other crew and passengers as part of GP hand duties
Teamwork	<ul style="list-style-type: none">• Working collaboratively with other crew members and shore based personnel• Recognising and adapting appropriately to cultural and language differences in the workplace• Recognising factors that may cause interpersonal relationship problems and assisting appropriately to avoid or overcome the identified problems
Problem solving	<ul style="list-style-type: none">• Recognising and either reporting or solving basic routine problems within work activities• Carrying out basic routine calculations required as part of work activities• Recognising a security or safety risk and taking action to report/rectify the risk
Initiative and enterprise	<ul style="list-style-type: none">• Adjusting work procedures to differences in equipment and facilities and changes in work environment (e.g. tides, weather and sea conditions)• Taking correct action and following established procedures on discovery of an actual or potential emergency, security or safety hazard





Employability Skill	Industry/enterprise requirements for this qualification include:
Planning and organising	<ul style="list-style-type: none"> Interpreting work schedules and rosters to plan the timing and sequence of individual and teamwork activities
Self-management	<ul style="list-style-type: none"> Working individually and with other crew members on a coastal vessel to ensure that work tasks are completed safely, efficiently, effectively, ontime and in accordance with applicable regulatory requirements Applying basic safety and emergency practices, precautions and procedures Acknowledging, discussing and acting upon feedback provided by senior crew members on assessed work performance
Learning	<ul style="list-style-type: none"> Adapting to differences in equipment, vessels, wharf facilities and operating procedures Updating knowledge and skills to accommodate changes in equipment and operating procedures
Technology	<ul style="list-style-type: none"> Selecting and using ropes, tools and equipment required in work activities of a GP hand Selecting and using safety, emergency and survival equipment on a vessel Recognising and reporting faulty tools and equipment Following OHS procedures when using tools and equipment

[Optional elective section]

Due to the high proportion of electives required by this qualification, the detail of the above Employability Skills are representative of the (insert industry name) industry in general and may not reflect specific job roles. Learning and assessment strategies for this qualification should be based on the requirements as identified in units of competency that meet packaging guidelines.

→ Examples of Embedded Employability Skills

The following table (Table 4) contains information taken from the *Training Package Development Handbook* (2005), and demonstrates how and where Employability Skills can be found throughout units of competency. Please take note that in the examples below the bracketed skills are provided only for clarification and will not be present in revised versions of Training Packages.

Table 4 *Employability Skills Embedded in Units of Competency*

Unit Component	Example of embedded employability skill
Unit Title	Give formal presentations and take part in meetings (Communication)
Unit Descriptor	This unit covers the skills and knowledge required to promote the use and implementation of innovation work practices to effect change (Initiative and enterprise)
Performance Criteria	Information is organised in a format suitable for analysis and dissemination in accordance with organisational requirements (Planning and organising)
Range Statement	Software applications may include: Email, internet and Word processing, spreadsheet, database, or accounting, packages (Technology)
Required Skills and Knowledge	Modify activities depending on differing workplace context, risk situations and environments (Learning) Work collaboratively with others during a fire emergency (Teamwork) Provide instructions, procedures and other information relevant to the maintenance of vessel and port security (Communication)
Evidence Guide	Evidence of having worked constructively with a wide range of community groups and stakeholders to solve problems and adapt or design new solutions to meet identified needs in crime prevention. In particular, evidence must be obtained on the ability to: Assess response options to identified crime prevention needs and determine the optimal action to be implemented; and In consultation with relevant others, design an initiative to address identified issues (Initiative and enterprise)

As you can see, the Employability Skills can easily be identified throughout units of competency. When unpacking units into learning and assessment strategies you must ensure Employability Skills have been appropriately covered.



➔ Dimensions of Competency

Together the four skill areas known as Dimensions of Competency create a holistic image of the competent individual with each sharing a strong correlation between one or more of the Employability Skills. The four dimensions of competency are:

- task skills
- task management skills
- contingency management skills
- job/role environment skills.

Being conscious of addressing the Dimensions of Competency can also be a useful guide to identifying which Employability Skills should be unpacked into learning and assessment.

Task skills

Task Skills involve the capacity to perform required tasks. Task skills correlate closely with two Employability Skills:

- **Communication**, which contributes to effective relationships between staff and customers and enables successful completion of tasks, as in the second example in the table below.
- **Technology**, which directly contributes to the capacity to perform tasks, as in the first example in the table below.

Examples

The following performance criteria deal with task skills:

- Pyrotechnics are executed on cue.
- Receive, interpret and clarify shift change over details.

Task management skills

Task management skills involve the requirement to manage a number of different tasks, reflecting the skills people use as they plan and integrate these tasks to achieve a complete work outcome. Task management skills correlate closely with the Employability Skill:

- **Planning and organising**, which reflects an individual's ability to manage tasks and timelines in the interest of achieving personal and organisational goals and objectives.

Examples

The following elements of competency deal with task management.

- Assistance in the development and presentation of proposals for resource requirements is provided in line with operational planning processes.
- Plan and prepare for operations.



Contingency management skills

Contingency management skills cover the requirement to respond to irregularities and breakdowns in routine, encompassing the skills used in day-to-day employment and allowing for dealing with irregularity, imperfections and the unknown. Contingency management skills correlate closely with two Employability Skills:

- **Problem solving**, which contributes to productive outcomes and addressing contingency situations, as in the first of the following examples provided in the table below.
- **Initiative and enterprise**, which is exercised to determine how best to solve problems and adapt to changing situations, as in the second of the examples provided in the table below.

Examples

The following performance criteria deal with contingency management:

- Relevant safety systems information is accessed, analysed and used to assist in or confirm hazard identification.
- Following presentation, feedback on design concept(s) is sought from the appropriate personnel. Final design concept is agreed and modifications determined and incorporated.

Job/role environment skills

Job/role environment skills are the skills we use in dealing with the responsibilities and expectations of our work environment and in working with others. This can include interacting with people from within and outside the enterprise such as colleagues, customers, clients, and the public. The capacity to work with others and to adapt to different situations and the varied demands of employment across enterprises is central to successful performance. Job/role environment skills correlate closely with the following four Employability Skills:

- **Self-management** in developing strategies and learning new skills to adapt to workplace and environmental changes, as in the first and third examples provided.
- **Communication** in obtaining and relaying information to maintain awareness of working conditions, and is demonstrated in all of the following examples provided.
- **Teamwork**, which contributes to supporting others and self in adapting to changes and establishing responsibilities, as in the first and third examples provided.
- **Learning**, which contributes to ongoing improvement in, and expansion of, operations and outcomes, as in the second and third examples provided.

Examples

The following performance criteria deal with job/role environment:

- Notification of shift availability, or non-attendance for shift, is given without undue delay and according to store policies and procedures.
- Rehearsal is monitored and conducted in accordance with the director's requirements, rehearsal schedule, organisational policies and procedures and production budget.
- Information on defined process changes and enhancements is made available to those responsible for control processes.

Table 5 summarises the relationship between the Dimensions of Competency and the Employability Skills. This table highlights how Employability Skills are an integral part of competency. Understanding the relationship between Employability Skills and the Dimensions of Competency will assist you to successfully unpack units of competency.

Table 5 *Dimensions of Competency in relation to Employability Skills (Rumsey 2005)*

Task Skills	Task Management	Contingency Management	Job/Role Environment
The capacity to perform required tasks to the standards described in the unit of competence	The requirement to manage a number of different tasks to achieve a complete work outcome	The requirement for dealing with irregularity, imperfections and the unknown	Skills used in dealing with the responsibilities and expectations of work environment, in working with others and when adapting to change in the workplace
Technology , which provides or contributes to a capacity to effectively perform tasks	Planning and organising reflects an individual's ability to manage tasks and timelines in the interest of achieving personal and organisational goals and objectives	Problem Solving contributes to productive outcomes and addressing contingency situations	Self-management in developing strategies to adapt and learn new skills to adapt to workplace and environmental changes
Communication , which contributes to effective relationships between staff and customers and enables successful completion of tasks		Initiative and enterprise is exercised in determining how best to solve problems and adapt to changing situations	Communication in obtaining and relaying information to maintain awareness of working conditions
			Teamwork contributes to supporting others and self in adapting to changes and establishing responsibilities
			Learning contributes to ongoing improvement in and expansion to operations and outcomes



➔ Inter-relationships of Employability Skills

There is a strong inter-relationship between Employability Skills. Understanding these inter-relationships can be a further aid to unpacking skills in your delivery and assessment practices. In some cases you can infer from the presence of one skill the presence of others. For example, the presence of many of the facets which often constitute **communication** will, by their very presence, infer **teamwork**, and vice versa. An example is presented in the following performance criteria, extracted from **BSBFLM405B Implement operational plan**.

Mentoring, coaching and supervision is provided to support individuals/teams to use resources effectively, economically and safely

In the example above ‘mentoring, coaching and supervision,’ along with ‘support individuals and teams,’ can frequently be found as facets of **teamwork** and **communication**.

‘Use resources effectively, economically and safely’, depending on the context, could be placed as a facet under either **problem solving** or **planning and organising**.

Here, in one performance criteria, there is strong evidence of at least three or possibly even four Employability Skills. Depending on the context and what you can infer from the presence of these four Employability Skills, you could also potentially include the remaining four: **initiative and enterprise** and **self-management**, which would have been exercised in determining how and when to best *support individual and teams*; **learning**, for the contribution these actions could potentially make to knowledge of the team and workplace, and finally, **technology** could support the communications, or possibly even apply to the resources being worked with.

Table 6 provides examples of the ways in which each Employability Skill is related to the others.

Table 6 *Inter relationships of Employability Skills (Rumsey 2005)*

	Communication	Teamwork	Problem Solving	Initiative and Enterprise	Planning and Organising	Self-management	Learning	Technology
Communication		Communicating with other in team situations	Solving communication problems	Communicating with others when being innovative	Communicating with others to coordinate planning and organising	Interacting with others as source of information in evaluating own performance	Sharing information with others during learning activities	Using technology to communicate with others
Teamwork	Communicating with others in team situations		Collaboratively solving problems	Interacting with others when being innovative and taking initiative	Interacting with others in planning and organising activities	Interacting with others as source of information in evaluating own performance	Interacting with others during learning activities	Using technology to assist collaboration
Problem Solving	Solving communication problems	Collaboratively solving problems		Creating workplace innovations through problem solving	Solving problems in the course of planning and organising	Solving problems in evaluating own performance	Solving problems as a source of learning	Using technology to solve problems
Initiative and Enterprise	Adapting and taking initiative during communications	Collaboratively taking initiative and adapting to team situations	Taking initiative when solving problems		Taking initiative in enacting planning and organising	Initiating appropriate self-management techniques	Initiating learning activities	Initiating the use of technology
Planning and Organising	Planning and organising communications	Working together to plan and organise work tasks	Planning and organising problem solving activities	Planning and organising processes to assist in creating innovative solutions		Planning and organising processes for self-management	Planning and organising learning activities	Using technology to aid in planning and organising activities
Self-management	Evaluating own performance during communications	Evaluating own performance and contributions to team	Evaluating own performance when solving problems	Evaluating own ability to take initiative	Evaluating own ability to plan and organise		Evaluating own learning needs	Evaluating effectiveness of own use of technology
Learning	Adapting communications techniques to current context	Learning to work in changing situations within teams	Adapting and learning when solving problems	Innovation occurring in learning from/ adapting to changes	Learning from/ adapting to changes in planning and organising	Learning techniques for self-management		Adapting to the introduction of new technologies
Technology	Using applicable communications technologies	Collaboratively using applicable communications technologies	Using applicable technologies when solving problems	Using applicable technologies to assist in innovation	Using applicable technologies to assist in planning and organising	Using available technologies to assist in self-evaluation	Using available technologies to assist learning	



Reflective Activity – Unpacking Employability Skills

- 1** Select a single unit of competency with which you are familiar.
- 2** Read through the unit and highlight (using different colours for each Employability Skill, if possible), each occurrence of an Employability Skill.
- 3** If any of the Employability Skills were not identified in the unit, consider:
 - a. The inter-relationships between the identified and absent Employability Skills. Do any of the skills not identified share a strong relationship with the others?
 - b. Whether you can think of any context in which the missing skill(s) could be required?
- 4** Do the activities you use to support this unit adequately cover the Employability Skills you have identified?

Use the worksheets on the following pages.

- 1. Employability Skills in Action.** Use the 'Description of Skills' column to list how the qualification or unit includes each Employability Skill. In the column 'Learning Activities', list your current and proposed learning activities that foster skill development in this area.
- 2. Employability Skills Stock Take** is a simpler, quicker review that allows you to check whether or not an Employability Skill is relevant to the learning activities you commonly use.

Reflective Activity – Employability Skills in Action

This worksheet can be used to list activities (pre-existing or yet to be designed) that can be used to demonstrate or apply relevant Employability Skills*.

Qualification/Unit		
Employability Skill	Description of Skills	Learning Activities
Communication		
Teamwork		
Problem Solving		
Initiative and Enterprise		
Planning and Organising		
Self-management		
Learning		
Technology		

*Adapted from *Real Skills, Real Success: a guide for Victorian RTOs in addressing generic skills in VET programs*

Reflective Activity – Employability Skills Stock Take

This activity will assist you to perform a simple stocktake of which Employability Skills are covered in your delivery or assessment activities.

- 1** Select a unit with which you are familiar and which you already have training and assessment activities/tasks designed to support assessment or delivery.
- 2** Enter the name or description of each activity in the top row, labeled Activities/Tasks (for example: 'Discussion on management styles', or 'forklift practical').
- 3** In the column under each Activity/Task place a check mark if that activity includes an opportunity to demonstrate or apply that particular Employability Skill.

UNIT: <input type="text"/>									
Activities/Tasks:									
Communication	<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"/>
Teamwork	<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"/>
Problem Solving	<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"/>
Initiative and Enterprise	<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"/>
Planning and Organising	<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"/>
Self- Management	<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"/>
Learning	<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"/>
Technology	<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"/>



Employability Skills in Delivery and Assessment





→ Employability Skills in Delivery

Employability Skills are most appropriately worked with in relation to the criteria, knowledge and skills described in units of competency. However, at some point in the learning process, time must be devoted to openly discussing the concept of Employability Skills with learners. This should include reviewing how these skills are specifically applied to the unit(s) being studied (as contained in the Employability Skills Summaries). Learners' understanding of Employability Skills can be further enhanced by their participation in learning that adheres to adult learning principles. The process through which individuals learn can, in itself, emphasise particular Employability Skills.

Adult Learning Principles

Adult learning principles state that adults learn best when learning is seen as immediately relevant. They can also be used to provide learners with a set of concepts to emphasise an ongoing commitment to developing Employability Skills. These principles are described below with additional emphasis on how each of the principles share a particular relationship to Employability Skills.

Responsible Learning

Responsible learning encourages learners to take ownership of the learning process through more direct and active participation in the learning process and includes the following: making meaning out of new knowledge, distilling principles which will aid transference to new contexts and practicing skills and mastering processes.

Responsible Learning emphasises **self-management** and **initiative and enterprise** as learners work independently to develop new knowledge and activities in the interest of furthering their skills.

DANIEL works as a trainer and assessor for a large enterprise, which provides learners with a Training and Assessment Planner. This is a tool which provides learners with advice for the kinds of learning and assessment evidence and tasks required to complete relevant units of competency, and records interactions between learners and their trainers/assessors.

Daniel says 'This approach works really well for us due to the size of the organisation. It places the greater emphasis on learners taking the initiative in managing themselves towards achieving competencies in their areas. Because our RTO team is proportionally smaller than the rest of the organisation, it helps us manage a larger percentage of staff in a more efficient manner.'

Experiential Learning

Experiential learning emphasises 'learning to do' and 'learning from doing'. Authentic learning occurs when learners have an opportunity to apply their skills and knowledge in authentic work environments or in contexts which attempt to simulate the real.



With its emphasis on real-time demonstration of skills, experiential learning can provide a strong basis for the demonstration and development of all Employability Skills. It can be particularly useful to create opportunities in which **problem solving** and **planning and organising** skills are applied in realtime.

SUSAN is in charge of the hospitality program at a large regional TAFE. Susan and her team of instructors and assessors describe the opening of their student run café as the greatest learning opportunity available to their learners.

‘This simulated environment also provides an opportunity for our assessors to observe people responding to others as they would in the workplace. This produces valid evidence of the person’s ability to apply Employability Skills in a work setting.’

Cooperative Learning

Cooperative learning encourages learners to learn from each other, share learning tasks and learn from a range of people including colleagues, mentors, coaches, supervisors, trainers, and others.

Cooperative learning-based activities can be particularly useful in a classroom environment to provide opportunities to work with **teamwork** and **communication** skills.

KYLE works for a small furniture company that employs four people and produces highly valued custom furniture. Kyle strongly identifies with his experiences at TAFE as the main source of not only preparing him for the job, but also developing the skills and vocabulary to get the job.

‘My last project at TAFE was working with three other learners to design and produce customised furniture based on a project brief provided by our instructor. This experience, of working with the other learners to negotiate our understanding of the project and create a final product, gave me something that I could really use to demonstrate to my new employers, and my ability to work in small and creative team’.

Reflective Learning

Reflective learning is about consciously and systematically appraising experience to turn it into lessons for the future. This can be introspective, where learners are encouraged to examine changes in their own perceptions, goals, confidences and motivations. It addresses: developing critical thinking skills, learning to learn and developing attitudes that promote lifelong learning.

While reflective learning can be useful in directly addressing **problem solving**, **initiative and enterprise** and **self-management** skills, it is an irreplaceable component of the overall instruction of Employability Skills. Learners must be provided with an opportunity to reflect on the ways the skills contribute to job effectiveness as well as their own abilities in relation to each of the skill areas.



RACHEL owns her own business, a private RTO that specialises in the delivery of units from the Business Services Front Line Management qualifications to new managers. She explains the role which reflective practices have always played in her delivery of these units.

‘One of the particular challenges is that clients are frequently staff who have graduated from operation roles into managerial roles. We have to devote significant time to getting them to reflect on the ways in which their roles and responsibilities have changed. Following on from this, I always stress the importance of incorporating reflection into their every day roles.’

Approaches to delivery

The decisions you make in determining which activities to use in delivering a unit of competency have a direct influence on the Employability Skills which get covered. Particular types of activities, by implication, cover particular Employability Skills. For example, getting learners to work in groups or syndicates means that they are having to demonstrate at least some degree of teamwork and communication to complete the tasks, and probably several others. In this example the context for **teamwork** and **communication** comes from the way in which the activity is shaped to reflect a true industry scenario.

Table 7, presented at the end of this chapter, provides examples of activities which can support the development or assessment of Employability Skills. While activities are matched to specific Employability Skills, it is possible that a single activity may in fact apply to more than one.

→ Employability Skills in Assessment

When developing assessment approaches it is important to remember that assessment, like delivery, can occur in the workplace, classroom or via flexible arrangements. Unlike delivery, assessment can also occur through recognition of prior learning (RPL). RPL acknowledges that candidates can attain competence through any combination of formal or informal training and education, work experience or general life experience. In RPL, candidates are assessed for current competency based on their previous learning and experiences.

Where Employability Skills are explicitly embedded within a unit, they should be assessed within the context of that unit – not assessed separately. This holistic approach of combining technical and Employability Skills is more relevant and closely aligned to real job expectations and practices.

Assessing Employability Skills

Employability Skills are most appropriately assessed in direct relation to the criteria, knowledge and skills described in units of competency, and not as a separate item. As is the case with delivery the decisions you make in determining what types of assessment activities to use has a direct influence on the Employability Skills which get covered. Particular types of activities, by implication, cover particular Employability Skills. For example, observing a candidate while they perform a group related task at work provides evidence of their ability to complete tasks as well as providing opportunities to assess skills in relation to **teamwork** and **communication**.



Table 7 provides examples of activities which can support the assessment or development of Employability Skills. While activities are matched to specific Employability Skills, it is possible that a single activity may in fact apply to more than one.

Holistic assessment of Employability Skills

Each employability Skill contains facets that overlap those of other skills. The most effective assessment approaches will be ones that holistically collect evidence of the Employability Skills, working together across a range of units of competency. A holistic approach will also lead to more relevant, less repetitive assessments for learners.

A holistic approach:

- builds a picture of competency based on the Employability Skills as a whole
- identifies units of competency, which contain similar Employability Skills facets, that fit together to describe work processes
- assists the assessor to collect evidence that can be analysed and is valid against a range of performance criteria and units of competency.

Supporting the candidate

The nature of Employability Skills places a greater responsibility on the person being assessed to themselves collect and compile suitable evidence. Therefore it is important that those being assessed receive timely advice about:

- what types and the detail of evidence to be supplied
- in what format the evidence should be presented
- the amount of flexibility they have to decide on kinds of evidence they should present.

Assessing Employability Skills in higher level qualifications

The application of Employability Skills will vary across the different levels of the Australian Qualifications Framework (AQF). Therefore methods of assessment for Certificate I and II level qualifications may not produce reliable, valid outcomes for higher level qualifications. Assessment methods such as demonstrations and role-plays that may produce quality evidence for lower level qualifications are not always sufficient to confirm competency against units of competency that demand a more complex, less observable outcome. For example, it is difficult to observe analytical skills that happen over a period of time. Similarly, additional guidance may be required to assist candidates to collect evidence of how they apply higher order initiative and enterprise skills.

The added complexity of Employability Skills in higher level qualifications requires assessment tools and approaches that:

- generate a range of evidence over a period of time from a variety of applications
- empower those being assessed to take more responsibility for collecting evidence and presenting their portfolio
- collect evidence that assists assessors to infer the attainment of less tangible soft skills such as analytical skills, creative thinking and complex problem solving.

Table 7 Activities to support the delivery and/or assessment of Employability Skills

Employability Skill	Learning and Assessment Strategies and Activities
Communication	<ul style="list-style-type: none"> • Preparing and presenting written and verbal reports • Role plays • Simulations • Demonstrations • Working in groups • Communicating with and responding to internal/external clients and customers
Teamwork	<ul style="list-style-type: none"> • Team or group projects • Role plays • Group discussion • Workplace teams • Committees • Syndicates • Communities of practice • Interactive activities
Problem solving	<ul style="list-style-type: none"> • Case studies • Simulations • Investigative projects and research • Using various problem solving tools and techniques • Problem solving in teams and networks • Decision making activities
Initiative and enterprise	<ul style="list-style-type: none"> • Brainstorming activities • Designing innovative and creative practices and solutions • Initiating change • Simulation activities
Planning and organising	<ul style="list-style-type: none"> • Research and data collection • Developing action plans • Planning and organising events • Time management activities • Goal setting activities and scheduling tasks • Collecting and analysing information
Self-management	<ul style="list-style-type: none"> • Development of portfolios • Work plans • Using log books to record time management skills and monitor own performance • Career planning exercises
Learning	<ul style="list-style-type: none"> • Use of reflective journals log books, diaries • Using skills in different contexts • Mentoring and coaching activities • Self-evaluation tools
Technology	<ul style="list-style-type: none"> • Use of Internet, Intranets • Using ICT skills to complete activities • Industry relevant software, technology and equipment



→ Contextualising Employability Skills

Training Packages provide standards which describe workplace competencies, as defined by industry needs. What they do not describe is the specific context or settings in which learning and assessment can take place. This responsibility rests with you, as a trainer or assessor, in the decisions you make in the design of learning and assessment activities. In addition to the ways in which Employability Skills can be successfully incorporated into training and assessment activities consideration should be given to how units of competency can be contextualised to better meet the needs of enterprises and individuals.

Contextualising Teaching and Learning (2005) defines contextualising as ‘... the activity undertaken by a teacher to make units of competency meaningful to the learner. This involves incorporating industry or enterprise work practices into the teaching and learning process.’ While the term ‘contextualising’ is used to broadly describe how to customise units of competency to the needs of specific enterprises and learners, it is also a useful tool to consider how Employability Skills can be made more meaningful to learners.

Earlier sections of this resource have described each of the Employability Skills and how Employability Summaries provide context for Employability Skills at the industry level. In order for Employability Skills to become fully meaningful they need to be contextualised to the enterprise level, as well as to fit the experiences and needs of individual learners. The model for contextualising provided in *Contextualising teaching and learning: a guide for VET Teachers* (2005) can easily be adapted to provide a starting point to demonstrate how Employability Skills can be incorporated into learning and assessment.

1. Identifying Employability Skills

Earlier sections of this resource deal with this topic in more depth and are only provided here in summary as a reminder of a few key points.

- While reviewing the unit(s) of competency to be worked with, units must also be checked to clarify where and how each relevant Employability Skill is found and applied within the unit.
- Obtain a copy of the relevant Employability Skills Summary for the qualification. This will help clarify relevant industry/workplace contexts with regard to the application of Employability Skills at the qualification level.
- Based on the above information, you can plan activities to be used in delivery and/or assessment of the unit to ensure that opportunities to explain and/or demonstrate the relevant Employability Skill provided.

2. Relating Employability Skills to learners

One of your key responsibilities when working with Employability Skills is to communicate with learners what Employability Skills are about. This includes explaining how Employability Skills are applicable to the competencies and qualifications they are undertaking, as well as how these skills are valued by industry.



When explaining Employability Skills to learners:

- Encourage learners to consider past work experiences and relate the skills they learned in those roles to present and future work opportunities. If you are working with learners who have not yet been employed, encourage them to think about social or sporting experiences, which can also be used to demonstrate Employability Skills.
- At the earliest opportunity discuss with learners their reasons for studying or going through assessment. This information can be used to contextualize activities and Employability Skills to the workplaces they are coming from, or hope to one day go to.

3. The setting for learning or assessment

Training and/or assessment can occur on the job or in a classroom environment. This location will, in part, determine the assessment and learning approaches.

- Workplace based approaches can be particularly useful because of the 'authentic' context in which the Employability Skills can be demonstrated and applied. In the context of a specific workplace, learners have opportunities to work with a wide variety of tasks, resources, behaviours and personnel unique to the organisation.
- Classroom based approaches do not have access to the same opportunities as workplace based approaches. Practical case studies, simulations and activities with industry representatives can all help to address the lack of a 'real' workplace context. Where activities are to take place in a classroom setting activities and exercises need to be made as relevant as possible to the workplaces and/or goals of all learners. Working closely with industry contacts to design activities or even to assist in instruction can be useful ways of ensuring a high degree of relevance to activities.
- Flexible or distance learning: approaches that combine on-and-off-the-job-activities need to be carefully designed to ensure that activities are made as relevant to learners as possible. Industry experts can be invited to join in online forums and can assist in designing activities specific to industry. Where possible, learners also need to be given opportunities to interact with each other, either online, via telephone, and where possible face to face. Because of the nature of flexible learning, it is also important to ensure that learners are encouraged to take advantage of relationships they have with colleagues, mentors and bosses at their own workplace.

On the following page is a handout you may use to introduce the concept of Employability Skills to learners or candidates for assessment.

Learners will also benefit from receiving more detailed information which describes the importance of each skill in the context of specific qualification and industry requirements.

As well as the handout, there is an activity inviting you to consider how you demonstrate Employability Skills in your actions as a trainer or assessor. A further activity provides you with a framework to think about how you can improve your practice in relation to Employability Skills.

Introducing Employability Skills to Learners

What are they?

They are skills which support your ability to perform effectively in the workplace. They are also known as transferable skills, because the Employability Skills you learn in one workplace can be applied and further developed in other workplaces and roles as well. They are non-technical skills and competencies that you may already be familiar with as soft skills.

The Employability Skills are:

- communication
- teamwork
- problem solving
- initiative and enterprise
- planning and organising
- self-management
- learning
- technology.

Where are they defined?

They are defined in the Employability Skills Summary. Each nationally recognised qualification describes in more detail the ways in which each Employability Skill can be used in the relevant workplace or occupation.

The bottom line

In most cases Employability Skills are already inherently a part of the tasks and activities you do on a daily basis. Employers in Australia, and around the world, are placing greater and greater emphasis on these skills.

As a learner and/or candidate for assessment, you must ensure that you are aware of the role Employability Skills play in the qualification and occupation(s) which you are training or being assessed for. Further questions or concerns may be addressed to your trainer or assessor.

Reflective Activity – Your Employability Skills

As a trainer or assessor, your own actions serve as a model for students. This activity is an opportunity to reflect on the Employability Skills relevant to a qualification or unit(s) you work with and compare them to ways in which you apply and demonstrate Employability Skills in your role as trainer or assessor.

Qualification/Unit <input type="text"/>		
Employability Skill	Description of Skills (as contained in Employability Skills Summary)	Your Skills
Communication		
Teamwork		
Problem Solving		
Initiative and Enterprise		
Planning and Organising		
Self-management		
Learning		
Technology		

Reflective Activity – Reviewing Employability Skills

This activity is to be used to evaluate delivery or assessment activities. It helps you to reflect on what you experienced and how you can improve your future practice.

Qualification/Unit			
Employability Skill	What worked?	What did not work?	What will you change?
Communication			
Teamwork			
Problem Solving			
Initiative and Enterprise			
Planning and Organising			
Self-management			
Learning			
Technology			



➔ Employability Skills and the AQTF

The effective incorporation of Employability Skills in learning and assessment strategies is underpinned by good practice. The Australian Quality Training Framework (AQTF) includes a set standards for Registered Training Organisations (RTOs) to support consistent, high quality learning and assessment outcomes. The standards require RTOs and their staff to:

- **Monitor the competency held by RTO staff and provide opportunities for professional development (standard 7).** Practitioners are required to keep up to date with the skills and knowledge required by industry. This includes understanding the effects of Employability Skills required by the industry you train for.
- **Adopt quality assurance measures for assessment to meet Training Package requirements (standard 8).** This standard refers to applying 'knowledge and skill to the standard required in the workplace'. Because Employability Skills required in the workplace are embedded in Training Packages RTOs must ensure that the assessment process allows for a judgement about the relevant Employability Skills.
- **Follow specific requirements for developing, validating and implementing learning and assessment strategies (standard 9).** Strategies must be developed in consultation with enterprises/industry and include methods for identifying and meeting the training needs of a diverse range of learners. Strategies must be subject to validation to ensure the Employability Skill components of learning and assessment approaches are regularly reviewed.

NB: The above points summarise excerpts from the **AQTF standards**. RTOs and practitioners should be aware of their responsibilities as described in all of the standards.

The following questions will assist you to determine if you are meeting the above requirements:

1. What professional development activities have you undertaken to update your understanding of current industry/work practices?
2. Do your assessments produce a valid, reliable indication of learners' ability to apply Employability Skills to the standard described in units of competency?
3. What methods do you use to identify the skills and knowledge needs of learners? Do these methods cover Employability Skill requirements?
4. Do your learning strategies provide opportunities for learners to practice and develop these skills?
5. Do your assessments, when conducted off the job, determine how learners will perform in a workplace environment?



→ Integrative Example

(AUR65116A) Determine vehicle damage and recommend repair procedures

Background

This example builds on the topics covered in this section to demonstrate how Employability Skills can be and are integrated into existing practices. It uses a unit from the Automotive Training Package for panel beating to demonstrate how Employability Skills are found and can be worked with in units of competency geared towards technical skills and outcomes.

It is not a comprehensive study in how to deliver and assess this unit, or any other unit. It is provided to demonstrate where and how Employability Skills are contained at key steps in the delivery and assessment processes.

Unpacking Employability Skills

The element, performance criteria and evidence guide for this unit, with the relevant Employability Skills highlighted, is attached at the end of this case study.

A quick scan of the unit title will show that **problem solving**, **communication** and **technology** are all central to an ability to effectively perform the tasks described by this unit. Essentially, learners are asked to assess the damage (**problem solving**) based on their **technical** knowledge and then **communicate** their findings to supervisors and/or customers as appropriate.

Additionally, evidence of at least four of the remaining five Employability Skills is quite strong in this unit as well.

- **planning and organising** is evidenced in scheduling the tasks and determining what tools are necessary to carry out an assessment for damage.
- **learning, self-management** and **initiative and enterprise** are all closely related in this unit. Working as a panel beater one would reasonably expect to encounter a wide range of vehicle models and makes as well as any number of possible damage scenarios. This would require an ongoing need to adapt to these changing circumstances (**initiative and enterprise**) through a self-directed (**self-management**) application of lessons **learned** working with similar types of damage. **Learning** is also required to seek out information about different types of damage to models and makes of vehicles that are new to the learner.

Relating Employability Skills to learners

While learners or candidates for assessment enrolled in this unit may not have previously encountered Employability Skills as a concept in their own right, they will certainly have had opportunity to apply the skills in some settings, in many cases possibly even in the context of vehicle repair.

An early exercise could encourage learners to reflect, either in writing or in a larger group discussion, on previous experiences. These may be experiences which contribute to technical competency or Employability Skills.

Following on from this exercise, it would be useful to introduce the concept of Employability Skills, and their relevance to the job roles that learners are preparing for.



Possible prompts to aid reflection on previous experiences:

1. What previous experiences (jobs, training, hobby, etc) do you have with vehicle repair?
2. What skills do you bring with you?
3. What skills do you want to develop?

Suggested Activity to incorporate Employability Skills

The evidence guide for this unit makes it quite clear that underpinning knowledge can be assessed in on-or-off-job settings, while the practical skills must be assessed in the workplace.

1. A typical activity would be to aggregate a learner's understanding of collision dynamics, and other types of damage, in order to undertake an effective visual inspection of damage.

To fully develop an understanding of these dynamics, learners would be expected to visually inspect damaged vehicles (either photographs or actual damaged vehicles).

In the course of assessing the damage, learners would clearly be demonstrating **problem solving** skills as they determine the type of collision and identify related areas with damage. At the same time, how they **communicate** to the instructor about the types of damage they are observing is also beginning to create a foundation for the ways in which recommendations for repair could be communicated to supervisors/customers.



Extract of:

AUR65116A

DETERMINE VEHICLE DAMAGE AND RECOMMEND REPAIR PROCEDURES

Unit Descriptor

This unit identifies the competence required to inspect a vehicle for damage and recommend a repair action for the RS&R Body Stream.

Element	Performance criteria
1. Inspect vehicle to determine cause and extent of damage for preferred method of repair	1.1 Inspection is carried out according to industry regulations/guidelines, OH&S legislation, statutory legislation and enterprise procedures/policies.
	1.2 If required, permission is to be obtained to partly dismantle the vehicle to permit an accurate inspection of the damage, if required.
	1.3 Written damage inspection report is prepared with sufficient information to enable preparation of the repair quote including repair option.
	1.4 Damage inspection report is appropriate to the type of damage sustained.
	1.5 Repair methods that conform to vehicle manufacturer, insurance company, enterprise and statutory guidelines are identified and recommended.
	1.6 Inspection is completed without causing damage to any workplace property or vehicle.

EVIDENCE GUIDE

Context:

- The underpinning knowledge may be assessed on or off the job.
- The assessment of practical skills must take place only after a period of supervised practice and repetitive experience on a range of system types. The assessment must take place in the workplace
- The prescribed outcome must be able to be achieved without direct supervision.

Critical aspects:

It is essential that competence is fully observed and there is the ability to transfer the competency to changing circumstances and to respond to unusual situations in the critical aspects of:

- assessing damage accurately without damage or injury to tools, equipment and personnel
- recommending the appropriate repair action

Underpinning knowledge:

- Industry records and how to maintain them
- Written communications and report writing relevant to application
- Personal & equipment safety requirements
- Vehicle inspection procedures
- Industry standards

Practical assessments:

- Access, interpret and apply technical information
- Assess damage
- Recommend appropriate repair action



Resources



Generic Skills

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Employability Skills (Assessment Guidelines)

[illegible]

Instructional methods

Level 2

[illegible]

Level 3

[illegible]

Level 4

[illegible]

Employability Skill Framework

	<u>1. Communicati on</u>	<u>2. Teamwork</u>	<u>3. Problem solving</u>	<u>4. Initiative and enterprise</u>	<u>5. Planning and organizing</u>	<u>6. Self- management</u>	<u>7. Learning</u>	<u>8. Technology</u>
A	Listening and understanding	Working as an individual and a team member	Developing practical situations	Adapting to a new situations – including changing work conditions	Managing time and priorities	Evaluating and monitoring own performance	Using a range of mediums to learn	Having a range of basic IT skills
B	Speaking clearly and directly	Applying teamwork to a range of situations	Solving problems in teams	Identifying opportunities not obvious to others	Collecting, analyzing and organizing information	Taking responsibility	Applying learning to technical issues and operations	Having the OHS knowledge to apply technology
C	Reading and interpreting documentation	Working with people of different ages, genders, races, religions or political persuasions	Showing independence and initiative in identifying problems and solving them	Being creative	Identifying contingency situations	Having knowledge and confidence in own vision and goals	Being open to new ideas and change	Having appropriate physical capacity
D	Using numeracy effectively	Coaching, mentoring and giving feedback	Resolving customer concerns in relation to complex project issues	Generating a range of options	Implementing contingency plans	Articulating own ideas and vision	Contributing to the learning community at the workplace	Operating equipment
E	Sharing information	Knowing how to define a role as part of a team	Using mathematics, including budgeting and financial management, to solve problems	Translating ideas into action	Being resourceful			Using IT to organize data

F	Being assertive	Identifying the strengths of team members	Testing assumptions, taking the context of data and circumstances into account		Allocating people and other resources to tasks			Applying IT as a management
G	Writing to the needs of the audience				Adapting resource allocations to cope with contingencies			
H	Empathizing				Participating in continuous improvement and planning processes			
I	Negotiating responsively				Planning and the use of resources including time management			
J	Persuading effectively				Developing a vision and a proactive plan to accompany it			
K	Establishing and using networks							

Key variables

Key variables used to identify employability skills within subject guidelines

Employability skill	Key variables to note
Communication <ul style="list-style-type: none"> • Discuss • Explain • Describe Communicating ideas and information	<ul style="list-style-type: none"> • Role plays • Demonstrations • Working in groups • Preparing and presenting written and verbal reports or tasks • Communicating with and responding to other learners
Teamwork <ul style="list-style-type: none"> • Discuss Working with others and teams	<ul style="list-style-type: none"> • Team or group projects • Role plays • Group discussion • Interactive activities • Community of learning
Problem solving <ul style="list-style-type: none"> • Identify • Investigate Solve problems	<ul style="list-style-type: none"> • Case studies • Simulations • Investigative projects and research • Problem solving in teams • Decision making activities • Usage of problem solving techniques and tools
Initiative and enterprise <ul style="list-style-type: none"> • Compare 	<ul style="list-style-type: none"> • Brainstorming activities • Simulation activities • Exercises, activities initiating change • Designing creative practices and solutions
Planning and organizing <ul style="list-style-type: none"> • Compare • Investigate Collect, analyze and organize information	<ul style="list-style-type: none"> • Research and information collection • Planning and organizing activities • Time management activities • Collecting and analyzing information
Self-management <ul style="list-style-type: none"> • Learner's own performance Plan and organize activities	<ul style="list-style-type: none"> • Development of portfolio's • Career planning exercises • Time allocation for activities, exercises
Learning <ul style="list-style-type: none"> • Investigate 	<ul style="list-style-type: none"> • Research • Use of reflective journals
Technology Usage of technology	<ul style="list-style-type: none"> • Use of internet • Using ICT means to complete activities • Email, word processing, spreadsheet, database

This is used to examine the key terms within the subject guidelines to explore the embedded employability skills.

NCV level 2

Subject: **Applied Accounting**

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total subject outcomes
1	4		1	1	4	2		1	
2	3		2	3	4	3		3	
3	3			4	5	3		3	
4	3			4	5	3		3	
5	3		1	2	4	2		2	
Total subject outcomes	16		4	14	22	13		12	

Table 8

Subject: **Applied Accounting level 2**

Learning outcomes

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total learning outcomes
1	15		2	4	14	5		5	
2	11		9	12	7	7		10	
3	9			6	12	11		9	
4	9			6	12	11		9	
5	8		2	9	8	11	2	5	
Total learning outcomes	52		13	37	53	45	2	38	

Table 9

NCV level 3

Subject: **Applied Accounting**

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total subject outcomes
1	3		1	3	3	3		3	
2	3		1	3	3	3		3	
3	2		1	3	3	3		2	
4	2		1	3	3	3		2	
5	3		2	3	3	2		2	
6	2				2				
Total subject outcomes	15		6	15	17	14		12	

Table 10

Learning outcomes

Topic outcome	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1.	14		8	8	16	6	1	9	
2.	9		6	8	10	7		9	
3.	8		9	11	13	11		10	
4.	5		4	5	7	5		6	
5.			1	6	3	6		2	
6.	5			1	5	3	1	3	
Total learning outcomes	41		28	39	54	38	2	39	

Table 11

NCV level 4

Subject: **Applied Accounting**

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total subject outcomes
1	4		4	4	4	4		4	
2	3				4	3	2	2	
3	1		3		4	3		3	
4	6			5	10	8		4	
5									
Total subject outcomes	14		7	9	22	18	2	13	

Table 12

Applied Accounting

Learning outcomes

Subject 143 outcome	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1	8			6	11	11	4	9	
2	7			7	9	9	2	6	
3	16		9	6	16	10	7	6	
4	28		20	21	31	15	22	21	
Total outcomes	59		29	40	67	45	35	42	

Table 13

NCV level 2

Subject: **Applied Accounting**

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total subject outcomes
1	4		1	1	4	2		1	
2	3		2	3	4	3		3	
3	3			4	5	3		3	
4	3			4	5	3		3	
5	3		1	2	4	2		2	
Total subject outcomes	16		4	14	22	13		12	

Table 8

Subject: **Applied Accounting level 2**

Learning outcomes

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total learning outcomes
1	15		2	4	14	5		5	
2	11		9	12	7	7		10	
3	9			6	12	11		9	
4	9			6	12	11		9	
5	8		2	9	8	11	2	5	
Total learning outcomes	52		13	37	53	45	2	38	

Table 9

NCV level 3

Subject: **Applied Accounting**

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total subject outcomes
1	3		1	3	3	3		3	
2	3		1	3	3	3		3	
3	2		1	3	3	3		2	
4	2		1	3	3	3		2	
5	3		2	3	3	2		2	
6	2				2				
Total subject outcomes	15		6	15	17	14		12	

Table 10

Learning outcomes

Topic outcome	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1.	14		8	8	16	6	1	9	
2.	9		6	8	10	7		9	
3.	8		9	11	13	11		10	
4.	5		4	5	7	5		6	
5.			1	6	3	6		2	
6.	5			1	5	3	1	3	
Total learning outcomes	41		28	39	54	38	2	39	

Table 11

NCV level 4

Subject: **Applied Accounting**

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total subject outcomes
1	4		4	4	4	4		4	
2	3				4	3	2	2	
3	1		3		4	3		3	
4	6			5	10	8		4	
5									
Total subject outcomes	14		7	9	22	18	2	13	

Table 12

Applied Accounting

Learning outcomes

Subject 143 outcome	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1	8			6	11	11	4	9	
2	7			7	9	9	2	6	
3	16		9	6	16	10	7	6	
4	28		20	21	31	15	22	21	
Total outcomes	59		29	40	67	45	35	42	

Table 13

NCV level 2

Subject: **Economic Environment**

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1.	5				5				
2.	4		4	4	4			4	
3.	1		1	1	3	2		1	
Total subject outcomes	10		5	5	12	2		5	

Table 14

Learning outcomes

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total learning outcomes
1.	17		1	1	18	2			
2.	13		6	9	10	3		4	
3.	12				15	3			
Total learning outcomes	42		7	10	43	8		4	

Table 15

NCV level 3

Subject: **Economic Environment**

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1	4		2	2	4			2	
2	4			1	4	1			
3	5		4	4	4			4	
4.					1	1			
Total subject outcomes	13		6	7	13	2		6	

Table 16

Learning: **Economic Environment**

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1.	16		6	6	16	2		6	52
2.	14		6	6	12			6	
3.	17		22	25	11	3		12	
4.	4			3	6	7		3	23
Total Learning outcomes	51		34	40	45	12		2	

Table 17

NCV level 4

Subject: **Economic Environment**

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
5.	5		1	3	4	2		2	
6.	4		3	3	4	1	1	3	
7.	4		1	1	4			1	
8.	4		5	5	4	4		4	
Total subject outcomes	17		10	12	16	7	1	10	

Table 18

Learning: **Economic Environment**

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1.	22		4	11	21	3	1	4	
2.	9		6	4	9	3	1	4	
3.	13		9	8	11	8	1	6	
4.	27		9	21	23	3		2	
Total subject outcomes	71		28	44	64	17	3	16	

Table 19

NCV level 2

Subject: **Financial Management**

Topic outcome	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1.	3		3	3	4	1		2	
2.			1	1	1	1		1	
3.	1		1		2	2		1	
4.	3		3	2	3	1		3	
Total subject outcomes	7		8	6	10	5		7	

Table 20

Financial management

Learning outcomes

Topic outcome	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1	15		10	8	16	2	1	9	61
2	2		1	1	1	2	2	2	11
3	7		4	2	7	4	1	4	29
4	10		3	2	10	3	1	4	33
Total outcomes	34		18	13	34	11	5	19	134

Table 21

NCV level 3

Subject: **Financial Management**

Topic outcome	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
5.	4		1	3	4	3	2	4	
6.	4				5	5	4	4	
7.	4				4	4	3	3	
8.	1			3	3	3		2	
9.	3		1	4					
10.	4				4	2	1	2	
Total subject outcomes	20		2	10	20	17	10	15	

Table 22

Learning outcomes

Topic outcome	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1.	15		4	10	11	13	2	10	
2.	4			6	7	8	4	5	
3.	4			6	7	8	4	5	
4.	10		1	4	9	10	1	2	
5.	6		7	14	6	8		6	
6.	8		1	1	10	7		4	
Total learning outcomes	47		13	41	50	54	11	32	

Table 23

NCV level 4

Subject: **Financial Management**

Topic outcome	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
11.	3		2	1	2	3	1	3	
12.	2		3	4	3	3		4	
13.	4		3	4	3	3		3	
14.	2		1	2	3	1		2	
15.	3				3	3	3	3	
Total subject outcomes	14		9	11	14	13	4	15	
Level 3	20		2	10	20	17	10	15	

Table 24

Learning outcomes

Topic outcome	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1.	16		2	2	16	6	1	3	46
2.	8		7	6	11	6	2	6	46
3.	17		7	7	17	10		9	67
4.	10		7	6	11	6		6	46
5.	10		3	2	11	5	3	6	40
Total subject outcomes	61		26	23	66	33	6	30	245
Level 3	47		13	41	50	54	11	32	248

Table 25

New Venture Creation

Topic	SE/SA	GW	PE	CS	Demo	C Tests	Stu Ex	CA	Qu St	Assign	Discu	R	P	De	Lec	Gu Sp
1		1	1	3		4				1	4	3	2	2	2	1
2		5	2	4		4					5	5				
3	2	2	4	2	1	3				2		1	1	1		
Total	2	8	7	9	1	11				3	9	9	3	3	2	1

								New Venture Level 3								
Topic	SE/SA	GW	PE	CS	Demo	C Tests	Stu Ex	CA	Qu St	Assign	Discu	R	P	De	Lec	Gu Sp
1		1		3		3					2					
2		5		2		5				1	5	4				
3		2		2		4				4		3				3
Total		8		7		12				5	7	7				3

								New Venture Level 4								
Topic	SE/SA	GW	PE	CS	Demo	C Tests	Stu Ex	CA	Qu St	Assign	Discu	R	P	De	Lec	Gu Sp
1		1		4		4				4	1	3	1			1
2		3		5		5				5	4	3	4			4
3				2		3				2						
4	1	4		4		4				3	4	3	1			1
5		3		3		3				1	3	2				
Total	1	11		18		19				15	12	11	6			6

NCV level 2

Subject: **New Venture**

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1.	3		2	1	4	2		2	
2.	4	1	3	3	4	2		3	
3.	3		4	1	4	1	2	3	
Total subject Outcomes	10	1	9	5	12	5	2	8	

Table 26

NCV level 2

Subject: **New Venture**

Learning outcomes

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1.	16		9	10	15			6	
2.	17	1	12	10	17	5		9	
3.	18		7	6	19	7	4	8	
Total subject Outcomes	51	1	28	26	51	12	4	23	

Table 27

NCV level 3

Subject: **New Venture**

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
4.	3		1	3	3			1	
5.	5		3	4	5	1		3	
6.	3	1	4	4	4	1		4	
7.	1		3	3	3	2		1	
Total subject Outcomes	12	1	11	14	15	4		9	

Table 28

Subject: **New Venture**

Learning outcomes

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1.	11		3	8	11			4	
2.	25		8	13	25	6		8	
3.	18		2	1	17	8		1	
4.	11		13	9	14	5		7	
Total subject Outcomes	65		26	31	67	19		20	

Table 29

NCV level 4

Subject: **New Venture**

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
1	4		3	3	4	2		3	
2	5		4	4	4		1	4	
3	2			1	1	1			
4	2		2	2	3	1		1	
5	2		2	2	3	3		2	
Total subject Outcomes	15		11	12	15	7	1	10	

Table 30

Learning outcomes

Topic	Communication	Team work	Initiative and enterprise	Planning and organizing	Self-management	Learning	Technology	Problem solving	Total outcomes
Total subject Outcomes	71		43	43	66	42	8	47	

Table 31