Factors that influence the employability of Technical Vocational Education and Training (TVET) graduates. A comparative study of two TVET colleges in the Gauteng Province.

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DECLARATION

I Wendy Charity Adams declare that the entirety of the work contained in this report, **Factors that influence employability of Technical and Vocational Education and Training (TVET) graduates. A comparative study of two TVET colleges in the Gauteng Province** is my own original work and that reproduction and publication thereof by the University of the Witwatersrand will not infringe any third-party rights.

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ABSTRACT

Technical and Vocational Education Training Colleges in South Africa have undergone major transformation since the advent of democracy. The White Paper for Post School Education and Training (PSET) speaks to the need of creating partnerships between TVET colleges and employers, in order to secure workplace-based training opportunities for TVET students which could in turn create employment opportunities for TVET graduates (DHET, 2013). The White Paper on PSET (DHET, 2013:11) states that, "Colleges should be rooted in their communities, serving its community as well as regional and national needs. They should primarily provide education and training to members of their own and nearby communities and develop skills for local industry". The above explains the objective of this research report which is to assess the effectiveness of the TVET colleges in its immediate communities and the country. The research study examined the factors that influence the employability of TVET graduates, doing a comparative study of two TVET colleges in the Gauteng province.

The TVET colleges have been criticised by skills development experts, researchers and the business sector that they are not fulfilling their responsibilities and should do more in order to be responsive to the needs of the industry. In response to these critiques, the government has invested huge financial resources in the TVET sector. Over the years, the funds allocated to the TVET colleges has been increasing. In 2018, the Department of Higher Education and Training (DHET) allocated R10.7 billion of its higher-education budget to the TVET colleges (Pandor, 2018).

The research study was carried out in the Gauteng Province at two TVET colleges and four local businesses. The data was collected by means of interviews with staff members from the TVET Colleges, local businesses and the DHET, using qualitative data collection methods.

The research analysis chapter was divided into four main themes. The first theme is titled, curriculum challenges and it discusses the misalignment that exists as a result of the outdated curriculum and equipment. This theme found that some of the curriculum used at the TVET colleges has not been updated in decades and this affects the alignment and responsive of the TVET colleges to the needs of its immediate community. The second theme focused on the workplace-based training programmes and the type of skills obtained by the TVET students during these training programmes. The readiness of students for the workplace was presented in the third theme, demonstrating that colleges need to improve its training programmes in

order to prepare students for the transition from college to the workplace. Finally, the fourth theme was the employability of TVET graduates by local businesses which discussed some of the factors that influence student's employability, such as delayed certificates and unqualified lecturers.

In conclusion, the research report found that the TVET colleges were perceived by business as not being aligned and responsive to the skills needs of local businesses. The findings illustrate that TVET colleges are inundated with challenges which if addressed with urgency could improve the quality of graduates they produce. The employability of graduates to a large extent is a reflection of the quality and functionality of the TVET colleges.

ACKNOWLEDGEMENTS

This journey was met with many hardships, which taught me endurance and perseverance. I would like to start off by thanking my supervisor, Professor David Dickinson for his academic input, patience and advice throughout this journey.

I would like to extend my appreciation to the two the TVET colleges based in the Gauteng Province and the four businesses that granted me permission to conduct my research, this study would not be complete without your participation and contribution.

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Acronym	"Definition"
CHE	Council of Higher Education
DHET	Department of Higher Education and Training
FET	Education and Training Phase
FET	Further Education and Training
GET	General Education and Training
GDP	Gross Domestic Product
HET	Higher Education and Training
HR	Human Resources
ICT	Information and Communication Technology
MA	Management Assistant
NATED	National Accredited Technical Education
NQF	National Qualification Framework
NSC	National Senior Certificate
NSDS	National Skills Development Strategy
NSF	National Skills Fund
NSFAS	National Student Financial Aid Scheme
PSET	Post School Education and Training
SAQA	South African Qualifications Authority
SETA	Sector Education and Training Authority
SSO	Student Support Services
TVET	Technical and Vocational Education and Training
VE	Vocational Education
VET	Vocational Education and Training
WIL	Work Integrated Learning

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1 CHAPTER ONE: ORIENTATION OF THE STUDY

1.1 Introduction

The democratic government of South Africa brought about reform in the education sector (Kraak, Paterson & Boka, 2016). This was done through the introduction of major transformative policies. Accordingly, Technical and Vocational Education and Training (TVET) colleges have undergone major transformation in South Africa over the past two decades. The first decade of democracy can be classified as the period of rebuilding particularly in higher education (Terblanche, 2017). The democratic government identified the TVET institutions as a place for skills training for South Africans. The Department of Higher Education and Training (DHET) wrote that the main purpose of the TVET colleges was to "train young school leavers, providing them with the skills, knowledge, and attitude necessary for employment in the labour market" (DHET 2013:11). The performance of the TVET colleges is based on the college's alignment and responsiveness to the needs of its immediate economy and the country at large (DHET, 1998). However, over the last 20 years, the TVET colleges have been criticised for producing students who do not possess the sets of skills and knowledge required by potential employers (Paterson et al., 2017). This is despite increasing government financial investment in the colleges.

South Africa has been grappling with the issue of increasing youth unemployment over the past few years. In South Africa, those aged 15-34 years are considered youth (StasSA, 2018). According to Statistics South Africa (2018), one in every three young people do not have a job. There are multiple reasons that contribute to the high unemployment in South Africa including socioeconomic inequality, unskilled youth and slow economic growth. This study researched the factors that influence the employability of TVET graduates. Findings from previous studies highlight that TVET graduates are not well equipped for the world of work which indicates that there is a misalignment between what is taught at the colleges and what is required by the industry (Arfo, 2015; Terblanche, 2017).

The Minister of Higher Education and Training, Minister Pandor, during a speech in March 2018 (Pandor, 2018:1), highlighted that "South Africa needs to devise partnerships that will generate solutions to address its many skills challenges. One of the critical challenges confronting South Africa has a large number of young people who have no education, no skills, or occupations."

The above statement by the Minister of DHET shows that there is a lack of essential skills and training which requires urgent attention. South Africa has a young population and in order to grow the economy it is imperative that the government finds solutions that will ensure that the youth is educated and employable. I currently work for the DHET, although I do not work directly with the TVET colleges, but my exposure to the higher education system grew my interests in the TVET sector, therefore, I selected a topic that focuses on the TVET colleges. Particularly the factors that influence the employability of TVET graduates doing a comparative study of two TVET colleges in a major city in the Gauteng Province.

1.2 Problem Statement

The demand for skills training for employment and socio-economic development creates a demand for the TVET colleges to be responsive to the labour market (Arfo, 2015). Skills development has the potential to shift the economy of any country upwards, especially one that is battling with a high unemployment rate, as is South Africa. One of the main objectives of TVET colleges is skilling and re-skilling the people. However, South Africa has been battling with problems of rising unemployment and skills mismatches in the labour market (Mahlakoana, 2018). According to Graspa (2017:1), "skills mismatch may be defined as the lack of necessary skills to perform the job or the underutilisation of skills which have been acquired". For the purpose of this study, we will look at the skills mismatch as the lack of necessary skills to perform the job, in particular, by TVET graduates.

Statistics South Africa (StatsSA, 2018: 3) wrote that, "in 2018, the unemployment rate of citizens eligible to work between the ages of 15 to 24 years was at a high of 52 percent." That means more than half of South Africa's youth is unemployed. This research aims to explore the factors that influence the employability of TVET graduates from the two TVET colleges in the Gauteng Province. Therefore, findings presented in this research report could lead to strategising on the best possible solutions to bring industry needs and graduate skills on par. This research will employ a case study approach, making a comparison between the two TVET colleges who are in partnership with four surrounding businesses.

1.3 Research questions

The research study asked the following question, “What are the factors that influence employability of TVET college graduates? A comparative study between two TVET colleges based in the Gauteng Province”. The following sub-questions were structured in a way that permitted for the comparative aspect of the research. The main research question was guided by a set of sub-questions:

- Are TVET colleges responsive to the needs of local businesses?
- Do TVET colleges have sufficient information on the employment needs of local businesses, in terms of skills requirements?
- What support is provided to TVET students by colleges in order to enhance their employability?
- What is the the relationship between the two TVET colleges and its surrounding businesses?

1.4 Research Design and Methodology

A qualitative research approach was employed to collect data through interviews with staff from the two TVET colleges, four surrounding businesses and a DHET representative. Content analysis of documents took place at the TVET colleges, such as the Memorandum of Understanding between the colleges and businesses and students placement records. The next section will highlight the summary for each chapter in the research report.

1.5 Chapter Outline

The research report is divided into five chapters. The next section will provide a brief summary of each chapter, explaining what is covered in each section.

- *Chapter 1*: Provides an orientation to the study.
- *Chapter 2*: Presents the literature that underpins this research study and the conceptual framework. This chapter provides a brief overview of the South African education system, specifically the transformation of the TVET sector and moves on to outline the

global context of the TVET sector and discusses the challenges faced by TVET colleges in South Africa, and lastly the partnerships between colleges.

- *Chapter 3*: The methodology chapter explains the reasons for the use of a qualitative research approach in addressing the objective of the study. It also provides insight on how the data was collected, analysed, and later provides the limitations to the study and the ethical consideration which were taken to account.
- *Chapter 4*: This chapter is two-fold; it starts off by presenting the context and description of the background research and the analysis chapter highlights the findings of the data collected and thematises the data for analysis purposes.
- *Chapter 5*: This chapter concludes the study and provides specific and general recommendations. It also points out areas of improvement in the case of possible research and investigation.

1.6 Conclusion

In conclusion, this chapter introduced and provided an overview of this study highlighting the problem statement, research question, research design and methodology and provided a summary of each of the six chapters.

The next chapter will provide the theoretical framework that underpins this study. It will start off by presenting the educational structure in South Africa and move on to share extensive literature about the history and the transformation of the TVET colleges.

2 CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Technical and Vocational Education and Training (TVET) colleges have been identified by the government as a vehicle for skills development in the country (RSA, 1998). Important to this are the type of skills imparted to students studying at the TVET colleges and the employability of the graduates upon completion. This chapter will present the literature relevant to the TVET sector, both locally and globally, and the policies that have shaped its development.

Kaul (1998) argued that education is associated with a better quality of life. Furthermore, education has the power to transform social conditions in a community through skills training. According to the White Paper on Post School Education and Training (PSET), DHET's main priority is to strengthen and expand the TVET colleges through "…building partnerships with employers and other stakeholders increasing the responsiveness of colleges to local labour markets, improving placement of TVET college graduates in jobs, and creating a mix of programmes and qualification that will meet the varied needs of industry" (DHET, 2013:12).

This chapter will start off by providing an outline of South Africa's education system in order to map out the historical evolution of the TVET sector from pre-democracy to now. The following will be a discussion of the TVET colleges in South Africa and the global context of the TVET sector looking at the different models used globally. The last few sections will discuss the relationship between businesses and the TVET institutions, partnerships in higher learning and outline findings by other researchers around TVET and employability.

2.2 South Africa's education system

The South African education system has undergone major policy shifts since 1994 when the democratic government was elected. Education has been identified as the engine of economic development and most importantly it has been regarded as a major means of imparting knowledge and skills to the individual while improving the quality of life for human beings (Kaul, 1998). This section will present South Africa's education system, explaining the different paths that students can take and the role of the TVET system in South Africa's education system.

When the new government came into office in 1994, it had to develop policies that would constitute an education system that was inclusive and not racially divided. This process was done by launching new policies which had a core focus of inclusion (Akoojee, 2007).

2.2.1 The Education System

The South African formal education system can be divided into three categories:

- The General Education and Training (GET) Phase, this is for Grade 1 – 9;
- Further Education and Training Phase (FET), for Grade 10 – 12; and
- Higher Education and Training (HET).

The GET phase is from the beginning of lower education, starting at Grade R, being a student as young as six years old. The GET phase is compulsory. When students get to Grade 10, they are between 14 and 16 years old, and they are not in the FET phase. Students at this level have an option to go to a TVET college or they can remain in a high school. Both the GET and FET phases are regulated by the Umalusi Council for Quality Assurance in General and Further Education and Training (Houserman, 2016). Upon completion of Grade 12, students can either go to a university or a TVET college.

The HET phase is divided into education learning and technical and vocational education and training. There are 26 public universities, which include both universities of technologies and research universities. South Africa has a total of 52 public TVET colleges across the country. In the mid-1990s, there was a rise in the number of private higher educational institutions, all of which had to be registered with the South African Council of Higher Education (CHE) and offer programmes accredited by the Higher Education Quality Committee (Higher Education Act No 101 of 1997).

All three education phases are regulated and guided by the National Qualification Framework (NQF). The NQF was created with the view of promoting the integration of education and training systems under the auspices of the South African Qualifications Authority (SAQA) under the South Africa Qualification Authority Act No. 58 of 1995 (RSA, 1995). According to the Act, the mission of SAQA was to ensure the development and implementation of the NQF.

A few years later the Skills Development Act No. 97 of 1998 was released with the objective of providing an institutional structure to set-up and implement national sector and workplace strategies to build-up and advance the skills of the South African workforce (Afro, 2015; RSA, 1998) and to incorporate those policies within the NQF. The government increased its levels of investment in education and training with the intention of encouraging partnerships between TVET colleges and industry in order for employers to use the workplace as an active learning environment (RSA, 1998). The Skills Development Act also aims at creating funding for skills development through a levy-grant scheme and the National Skills Fund (NSF).

The dawn of democracy led to new beginnings in the development of skills required for economic transformation, social inclusion, and national development, as well as employment and poverty alleviation (Afro, 2015). The government at the time was faced with the triple challenge of transforming education, politics, and the social and economic sector. Problems that were inherited from the apartheid government of racial division, economic and political exclusion had to be addressed by the new government (Akoojee, 2008). The above-mentioned policies were launched with the aim of accelerating skills development in South Africa, as education had been recognised as a viable tool for meeting both social and economic aspiration in South Africa (Akojee, Gewer & McGrath, 2005; RSA 1998). The next section will discuss the historical background of the TVET sector in South Africa.

2.3 Technical and Vocational Education and Training (TVET) Colleges in South Africa

2.3.1 Pre-1994

TVET colleges, formerly called Further Education and Training (FET) Colleges, were initially developed for skills training for the workforce, for sectors such as mining and railways (Abedian & Standish, 1992). The expansion of both the mining and railway sector in the late 19th century led to a high demand for skilled and knowledgeable labour (McGrath, 2003: Abedian & Standish, 1992). The main objective at the time was to train people for industry-specific jobs in manufacturing, mining and on the railways (McGrath, 2003). The historian Smuts (1937:97) wrote that technical education "[r]referred to a type of education which had reference to manufacturing and industrial pursuits and the scientific principles underlying these."

In the 1920s, the Apprenticeship Act (Act No. 26 of 1922), was used as a framework for technical colleges, which stipulated that the primary aim of technical colleges was to provide both theoretical learning and vocational training of the apprenticeship system (Gerber, 2011; McGrath, 2004; Kanyane, 2016).

The TVET sector was formalised in the 20th Century to provide "theoretical training for those already engaged in practical, on-the-job learning in apprenticeships" (Kanyane, 2016 & McGrath, 2003). The TVET sector at the time was closely aligned to the needs of the labour market.

As the industry evolved, so did the skills required. Theory-practice combination became more favourable as the industry required graduates who possessed certain industry-related skills linked to theoretical knowledge (McGrath, 2003). All students who attended technical colleges had work placements, where they gained practical experience and skills (McGrath, 2003). There were close relations between industry and colleges' pre-1990s, which ensured the success of the TVET institutions as this system alleviated financial pressure from the government. The TVET colleges were not required to invest in establishing training workshops, since that was done at the workplace. Colleges streamlined their training to theory only because of the close-knit partnerships (McGrath, 2003; Layton, 1984). This came as a result of the close link between colleges and industry, which at the core was racially defined, with the purpose of excluding black South African (Gerber, 2001).

However, things started to slowly change in the 1980s and socio-economic pressures led to the Manpower Training Act (Act 56 of 1981). The purpose of the Manpower Act of 56 of 11981 was to enable black South Africans access to the then technical colleges (McGrath, 2010; Gerber, 2011). As a result, an increasing number of blacks entered into technical colleges in the 1980s. This led to the establishment of urban technical colleges for blacks South Africans (Gamble, 2004; McGrath, 2004; Akoojee & McGrath, 2007).

At this point, technical and vocation education was offered in three different types of colleges, "i) state-aided technical colleges for whites, ii) the state technical training colleges, and iii) and the homeland manpower technical colleges for blacks to cater for the authorities to protect the policies of separate development" (Kanyane, 2016:55). The latter two colleges were designed to cater only for Africans, including Blacks, Indians and Coloured students (Matea, 2014).

However, courses offered at these colleges differed according to their geographical location (Gerber, 2011). The technical colleges offered courses such as bricklaying, carpentry and woodwork. Even after the white government started opening doors to non-white people by extending apprenticeship to other racial groups, including Coloureds and Indians except for blacks (Gerber, 2011).

There was a significant decline of apprenticeship opportunities for qualifying artisans during the period post-1990. Some researchers attributed the decline of apprentice opportunities for students at TVET colleges to the rise of alternative training centres, as more businesses registered private training institutions and in-house training centres which were accredited by the government (Dlamini, 2014). The private sector was not reliant on the colleges to provide a skilled workforce, as they had accredited in-house training.

2.3.2 Post-1994

Before 1994, there were 152 technical colleges, which consisted of state-aided, state and manpower homeland technical colleges that were located in different government departments and were funded and administered differently based on apartheid planning (RSA, 1998; McGrath, 2004; Akoojee & McGrath, 2007; Akoojee, 2008). Afro (2015) argues that the major challenge for the democratic government was to transform an education system that was racially-divided into a coherent system capable of addressing the TVET needs of the 21st century. Part of the transformation was the renaming of technical colleges to FET colleges in the 90s (which were renamed in 2014 to TVET colleges) and the merging of the 152 technical colleges into 52 public FET colleges (RSA, 1998).

Education and skills were recognised as a vehicle to ensure that black South Africans who were previously marginalised and disadvantaged had access to training and education (Akoojee, 2008). The government produced a number of white papers and passed several acts (some of which were discussed above) to ensure the skills development was in line with the needs of the country. Some of the important policy documents are noted below:

- The South African Qualifications Authority (SAQA) Act of (Act 58 of 1995) led to the establishment and launch of the National Qualification Framework (NQF). The NQF was designed to provide a framework for learning achievements through a

common set of qualification arranged in ascending order from one to ten as a means of addressing issues of equality, access, mobility, and progression (SAQA, 2012).

- The White Papers on Education and Training of 1999 and 2013, which focused on the promotion of government-initiated programmes that were aimed at redefining the state of education and training to be more inclusive (RSA, 1999; RSA, 2013). As previously stated, the concept of inclusivity was meant to address the challenges inherited from the apartheid government. The White Paper for the PSET focuses on long term goals and seeks to develop effective collaboration between institutions and workplaces and developing a TVET sector that is responsive to the needs of the country.
- The Skills Development Act No 97 of 1998, replaced the Manpower Act of 1951 (RSA, 2008). The Skills Development Act, introduced learnerships and focused on the expansion and the modernisation of the TVET training (RSA, 2008).
- The Skills Development Levies Act of 1999, which makes it compulsory for businesses to pay a levy in order to fund training and education. This act is also meant to foster relationships between businesses and training colleges. The Further Education and Training Act of 1998 and 2006 guided and governed the development and transition of the FET colleges post-democracy.

The above-mentioned policies and legislation were written with the intention of increasing access to education for all, providing a guideline of how to improve the quality of graduates produced by institutions of higher learning while transforming the TVET sector. The TVET sector is seen as a vehicle for redressing injustices stemming from racialised and gendered skills development under the apartheid government. The TVET sector was also seen as a medium that could be used to skill and re-skill the workforce, which would, in turn, contribute to the economic development of the country.

South Africa has looked to the successes of other countries while crafting a model that would best work for its TVET colleges. The next section will present different programmes offered by the South African TVET colleges.

The reconstruction of TVET colleges came with the phasing out of the National Accredited Technical Education (NATED) N1 to N3 NATED engineering qualifications (as announced in

the Government Gazette number 28677 on 29 March 2006. The DHET (DHET, 2010d: 26), in its reports, argued that the "N 'courses' are fundamentally outdated and lag behind in applied disciplinary knowledge." The National Certificate Vocational Level 2 to 4 engineering curricula, were introduced in 2007 with the intention of replacing the old N1 to N3 national N certificates.

2.3.3 Programmes offered at TVET colleges

This section will highlight the different programmes offered at TVET colleges, namely, the NC (V), NATED programmes, apprenticeship and learnerships.

2.3.3.1 National Certificate Vocational (NC (V))

The government launched the National Certificate Vocational (NC (V)) structure at public TVET colleges in early 2007 (HRDC, 2014b). The curriculum was intended to replace the NATED courses which were deemed outdated and are offered at NQF Level 2 – 4. When the DoE implemented NC (V) it was envisioned that it would address the socio-economic issues of skills training in the country.

The NC (V) consists of three fundamental learning subjects, under each programme, which are Mathematics or Mathematics Literacy, Language and Life Orientation. There are also four core subjects, grouped in vocational subjects, namely, Manufacturing, Engineering and Business Studies (DHET, 2013a; Field et al.., 2014; Umalusi, 2013). To obtain an NC (V) qualification, a student must achieve a minimum of 30 percent for Mathematics or Mathematics Literacy, 40 percent for an official language, 40 percent for Life Orientation and achieve a minimum of 50 percent in four vocational subjects (Umalusi, 2013).

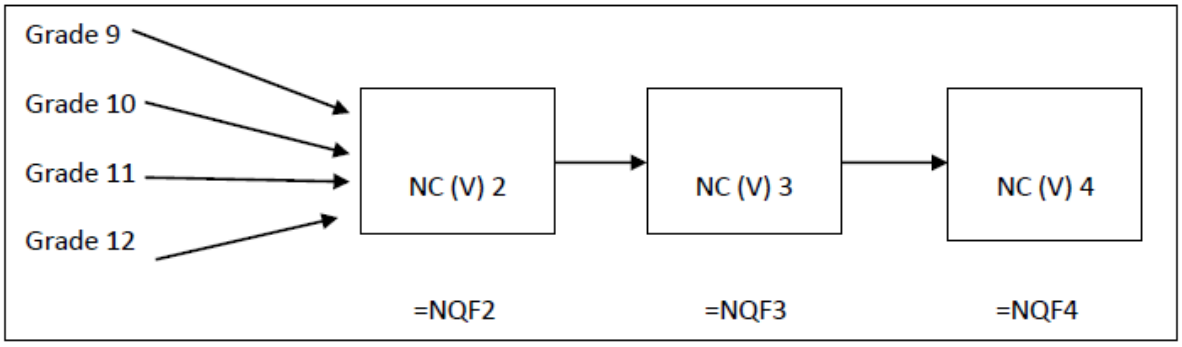
The NC (V) curriculum provided a combination of job-specific skills and generic skill (DHET, 2012a; Powell, 2013). However, due to a large number of implementation challenges and the rejection by industry, it produced a minimum impact on artisans' development in the country.

The minimum entry requirements to an NC (V) programme at Level 2 on the NQF is a Grade 9 certificate. However, students who have Grade 10, 11 or 12 are also enrolled at NC (V) Level

2. This has brought unintended consequences for both TVET lecturers and students, in that students of different competency levels are put in the same classroom.

Taylor (2011) argued that the NC (V) was intended to run as a parallel stream to the National Senior Certificate (NSC). NC (V) is structured in a way that it prepares students for occupation-specific training, while the NSC prepares the students for entrance into higher learning institution (Taylor, 2011; Kanyane, 2016).

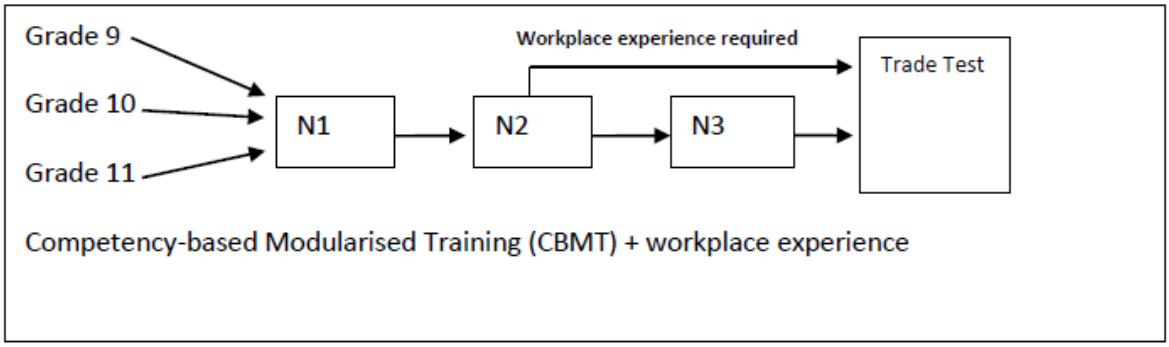
Figure 2.1: Entry requirement and pathway into an NC (V) programme at a TVET college (Kanyane, 2016)



2.3.3.2 The National Technical Education (NATED) Programmes

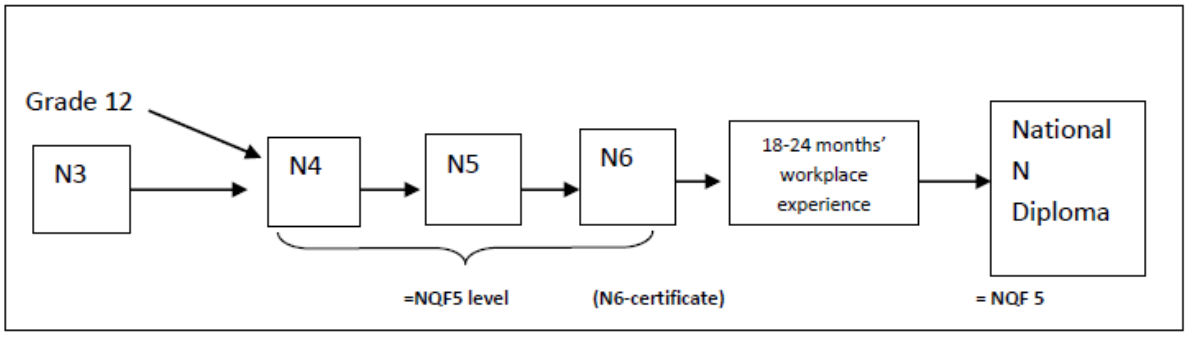
The NATED programme, also referred to as Report 191, dates back to the 1920s and comprises of courses that were taught in the former technical colleges. The NATED programmes are offered in two-part qualifications, N1 to N3 and N4 to N6, which are only vocational (Field et al., 2014; Kanyane, 2016). Part 1 is for engineering programmes for students who have passed Grade 9, to be enrolled for N1 to N3. TVET students enrolled in part 1 of the NATED programme are required to do workplace training before proceeding to N3.

Figure 2.2: Pathways for Engineering Studies for Part 1 (Kanyane, 2016)



An N3 pass permits admission to Part 2, which consists of N4 to N6. Kanyane (2016: 73) wrote that "this qualification requires students to complete part of the qualification at the college (knowledge component)" and other part at the workplace through apprenticeship or learnerships training. It is only upon completion of the practical training that students will be permitted to do a trade test. Successful completion will result in a National Diploma, NQF Level 5 (Field et al., 2014; HRDC, 2014). The period of the entire programme is three years, including workplace training (HRDC, 2014).

Figure 2.3: Part 2 of NATED programmes for Engineering Studies (Kanyane, 2016)

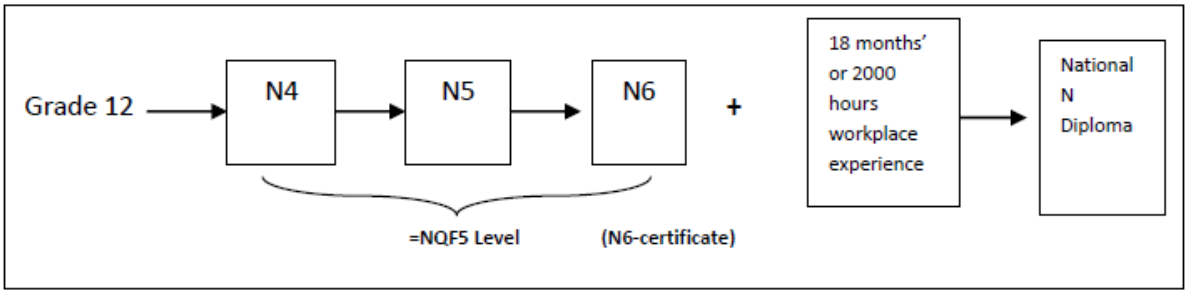


The phasing out of the engineering programme was subsequently followed by the phasing out of NATED N4 to N6 and diploma (businesses and general study) qualifications (as announced in the Government Gazette number 31711 on 12 December 2008). There was no replacement curriculum in place, which created a gap that affected the education and training needs of post matric students (DHET, 2013b).

The entry requirements for business studies programmes or service-related programmes changed and is now slightly different in that the minimum requirement is an NSC or Grade 12, and the student begins the NATED programmes at N4. Upon completion of N6, the student

obtains an N6 certificate. Before a Business Studies student can get a National Diploma certificate, they need to complete 18 months' workplace experience (HRDC, 2014).

Figure 2.4: Requirements for a Business Studies NATED programme (Kanyane, 2016)



The programmes offered at TVET colleges include NATED Level N1 to N6 with each level completed over a period of a trimester, and the NC (V) offered at NQF Level 2 to 4, with each level completed over a period of a year. NC (V) programmes are not on the same level as the NATED programmes. NATED programmes are unit-standard programmes, which means that at the end of each trimester you come out with a part qualification (Dlamini, 2014). NATED programmes do not have any access to learning and training beyond NATED Level N6. On the contrary, NC (V) programmes offer full qualification and are meant to grant access to qualifications beyond NQF Level 4 in universities.

NATED programmes offer technical and practical skills training which are linked to apprenticeships, while, NC (V) programmes offer a combination of job-specific skills and generic skills which aim to equip students with practical, theoretical and academic knowledge.

2.3.3.3 Apprenticeship System

The concept of apprenticeship, as defined by Longman (2007:24), is a "young person being trained to do a skilled job". In the context of TVET colleges, apprenticeships allow students an opportunity to learn a trade through practical training alongside a skilled professional in an actual work environment. This trade training is linked to NATED programmes offered in the form of unit standards (merSETA, 2009). Once students have completed the apprentice programme, they are required to do a competency trade test assessed by the assuring body regulating the apprentice programmes. Successful completion of the trade test and theoretical

assessment leads to the accreditation and registration of a graduate as an artisan (merSETA, 2009; Dlamini, 2014).

2.3.3.4 Learnerships

The learnership was introduced as a concept under the Skills Development Act of 97 in 1998 (Vollenhoven, 2016). Vollenhoven (2016:1) described the learnership as "structured learning in the workplace under the supervision of a qualified artisan, and related structured institutional learning that leads to a qualification". Successful completion of a learnership leads to a qualification linked to the NSF Level 2 to 4. The assessment of candidates includes a written examination from a college and a competency testimonial from a workplace supervisor (merSETA, 2009; Dlamini, 2016).

The main difference between an apprenticeship and a learnership in South Africa is that apprenticeship applies only to traditional hard trade or rather apprenticeship is limited to technical trade involving engineering related fields (Dlamini, 2016; Vollenhoven, 2016), whereas learnership applies to a wider range of careers, such as financial planning, agriculture and hospitality (Dlamini, 2016; Vollenhoven, 2016). Both models include the combination of theory and practical training and a prescribed period of vocational training in the relevant industry (Vollenhoven, 2007, 2016).

2.3.4 Challenges facing Technical and Vocational Education and Training Colleges in South Africa

Some of the existing challenges of the TVET sector stem from the policies implemented post-democracy. TVET colleges offer NATED programmes also referred to as "N" courses, from N1 to N6 in Engineering, and N4 – N6 for Business and General Studies.

The Skills Development Act introduced learnerships as a combination of unit standard-based structural learning and practical work experience that leads to a qualification (Terblanche, 2017). The Sector Education and Training Authority (SETA) is responsible for accrediting the practical work training experience (Moll et al., 2005). According to Terblanche (2017), the programmes offered by the TVET colleges are outdated and have not been revised to suit the needs of businesses and industry. McGrath (2005) outlined that, while TVET curricula are

outdated, there is a bigger challenge of some infrastructure being even more outdated and worn-out. This argument is also supported by the DHET (2010d: 26), in a report stating that "N courses are fundamentally outdated and lagged behind in applied disciplinary knowledge". This statement is important for understanding the challenges facing the learnership programme.

Another challenge of TVET colleges is the common misconception that TVET colleges are alternatives for learners who failed to gain access to an academic university. In some instances, a learner enrolling at a TVET college is seen as a 'dead-end' student (African Union, 2007; Atchaerna & Delluc, 2001) because the certificate does not give you entry to higher education, and this has negative consequences for the image and the status of the sector as a whole (Bose, 2008).

There is a high demand for TVET college lecturers to have current knowledge and experience of the subjects they teach in the relevant industries as well as the teaching expertise (van der Bijl & Taylor 2018). A research study conducted by the DHET to evaluate TVET lecturers qualifications found that there is a skills shortage amongst the lecturers (DHET; 2014). According to the study, (DHET; 2014), TVET lecturers are either unqualified meaning they do not have a qualification; or they hold an academic qualification but not in education; or lecturers are trained and qualified as school teachers; but few are academically and professionally qualified to be college lecturers. In 2013 the DHET launched a policy on Professional Qualifications for Lecturers in the TVET and the public universities are currently using this policy to develop TVET qualifications for lecturers at TVET colleges (van der Bijl & Taylor 2018). The qualification will cater for new incoming lecturers and lecturers that are already in the system. The qualification will be offered at three different level including; Bachelor of Education in TVET, Advanced Diploma in TVET and Diploma in TVET. The DHET needs to develop a strategy to encourage existing TVET lecturers to obtain these qualifications.

Challenges experienced at the TVET colleges need to be addressed, if the TVET sector is to improve and achieve its mandate. In order for the TVET sector to reach its full potential, there needs to be stronger relations between the colleges and industry. The partnership needs to have clear outcome-based goals set-out, some of which should include lecturer development. In order for the TVET sector to achieve its goal, it needs to ensure that it is producing graduates or artisans that have the skills required to contribute to economic growth.

2.4 Vocational training: The global context

There are a number of terminologies across the globe that are used to refer to technical and vocational education. These include vocational education and training (VET), occupational training, further education and training (FET), technical and vocational education and training (TVET), and vocational education (VE) (Afro, 2015; Allais, 2012).

UNESCO recommends the all-inclusive term of *technical and vocational education and training* or the acronym of TVET (UNESCO, 2015). For the purpose of this research report and for consistency, this term will be used.

Different countries have different strategies for their TVET institutions, which reflect the country's educational history, goal and the vision of the country's TVET system (Fawcett et al, 2014). There are three TVET models that are recognised worldwide: the liberal market economy model, the dual system model, and the state-regulated bureaucratic model (Fawcett et al., 2017).

In the liberal market economy model, TVET supply is mainly driven by the needs of the private sector, which are industries and firms (Fawcett et al., 2017). Fawcett et al. (2017) stated that, in this model, the private sector determines the types of occupation qualification that the industry requires to train their workers. Since the industry determines the supply of the occupational training, they also volunteer to pay for workers' training and apprenticeships; hence, this model is also referred to as a *volunteer model* (Fawcett et al., 2017). The advantages of the liberal market model include a close correlation between the private industry and the TVET system, which ensures responsiveness to industry needs. This model is mainly adopted in Australia and Great Britain (Fawcett et al., 2017).

In the dual system model, which is found in Germany, Norway and Switzerland, "the design, development and implementation of the TVET include a wide range of public and private stakeholders, such as trade unions and state agencies and organisations" (Fawcett et al., 2017:4). The dual system reflects a strong partnership between industry and TVET institutions, as learners are trained in both colleges and partner industry. This model combines apprenticeships in a company and vocational education at a TVET college (Afro, 2015). A

learner will sign a contract and he or she becomes an employee with trainee status (Afro, 2015). According to Fawcett et al., *(*2017), these private-public partnerships form 'intermediary' institutions. These 'intermediary' institutions regulate TVET education qualifications and ensure TVET stability and also limit the control that the state and the market can have on the TVET system.

The dual system model has an extended history dating back to mediaeval era; hence, the positive attitude of industry and schools that cooperate in the system (Young, 2001, Akoojee, 2010). This system is not a blueprint and cannot be easily replicated in another country, as dynamics across states will never be the same (Akoojee, 2010, Fawcet et al., 2017). There needs to be strong policies, funding models and willingness from all stakeholders involved in order for this model to be successful.

An example is South Africa's apartheid history, which up till today still plagues the TVET colleges. The dual system model is one that South Africa has particularly been interested in. The DHET has conducted study visits to Germany a few times in past years to assess TVET colleges and get a better understanding of how the dual system model is implemented (Roberts, 2014).

The third model is the state-regulated bureaucratic model, largely present in France, Sweden and Finland. Under this model, the state defines and provides finance for vocational education and training in the country (Fawcett et al., 2017). It is the sole responsibility of the government to ensure that learners are trained and exposed to the workplace. Training is an extension of the national education system. A state-regulated TVET model is characterised by theoretical curricula and inadequate student exposure to on-the-job training (Fawcett et al., 2017). Under this model TVET are said to not always reflect the demands of the industry and the economy as a whole (Fawcett et al., 2017).

The state-regulated bureaucratic model is a model that was adopted by the democratically elected government of South Africa. The government wanted better control of the education system to ensure the implementation of its policies, which had the main objective of inclusion for all citizens. However, the South African government for the past few years has been trying to move away from this model for a number of reasons: i) it is costly for national government and the government is unable to provide practical exposure to learners, ii) TVET curriculum

needs to be developed closely with industry in order to be fully responsive and relevant information about the labour market, and iii) private-public partnerships will increase employment opportunities for graduates from the TVET colleges.

The TVET policies outline that TVET colleges must be seen as a viable alternative to academic higher education to promote the integration of young people with weak or no academic qualifications into education and employment (Reddy, Bhorat et al., 2016). There is a weak linkage between industry and TVET colleges which needs improvement and the previous Minister of Higher Education and Training used to advocate for the establishment of the partnership between industry and TVET colleges. The success and effectiveness of the state-regulated model in South Africa are dependent on a number of factors, such as qualified staff members at the colleges, good policy implementation and close ties between industry and TVET colleges. In 2018, the then Minister of Finance announced during his budget speech that the education budget would increase substantially its budget for higher education and a considerable portion was going to be directed towards TVET colleges (Gigaba, 2018).

2.5 The relationship between TVET colleges and different stakeholders

The responsiveness of TVET colleges to the society and businesses and industry needs and the employability of the learners emerging from the colleges are three issues that have generated much debate in the research literature over the past two decades (Wedekind, 2012; Harvey, 2000; Cappelli et al., 1997). A labour market is a place that is constantly changing and this change is influenced by the developing and evolving technologies in the workplace globally (Gamble, 2003; Badroodien & Kraak, 2006). Wedekind (2012:4) wrote that a workplace requires a person who, "has problem-solving skills and general capabilities such as literacy and numeracy and visual literacy that enable the worker to communicate verbally and in writing". The World Bank (2010) stated that education and training must be used as a vehicle for economic development. This means that there must be alignment of education and training to the needs of the labour market in order to increase employment opportunities for graduates.

The TVET colleges rely on the different stakeholders for practical training for their learners, as most of the TVET colleges do not have training workshops on site. Likewise, the industry wants to hire graduates who have, to a certain degree, practical skills training. It is important

to note that it is the responsibility of both TVET colleges and employers to build good and mutual partnerships (Wolf, 2002), as South Africa previously had in the early 1900s.

The topic of 'employability' originated mainly from industrialised countries and has been approached from different perspectives, depending on the objective of the research (Paterson et al., 2017). According to Paterson et al. (2017:12), corporates were interested in researching "how to improve matching between employers and employees – in particular, selection of candidates whose personality characteristics suggested career stability and low propensity to change jobs". A definition that best describes employability for this research is: "A set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations" (Yorke, 2004:8). For the purpose of this research, factors that influence employability of TVET graduates will be researched looking closely at two TVET colleges in the Gauteng Province. This research report will explore the 'set of achievements' required by industry from TVET graduates in order for them to increase their employment opportunities.

DHET's White Paper (2013) highlights the importance of promoting strong partnerships between TVET colleges and employers (HRDC, 2014). The successful partnership between the employers and TVET colleges will ensure that students' graduate with an updated set of skills which will, in turn, make these graduates more attractive to the market (HRDC, 2014). Piyasiri et al. (2008) wrote that strong partnerships between colleges and companies lead to reducing skills shortages and mismatches, improving the supply of middle-level skills, lecturer placement, upgrading machinery and equipment and improving TVET colleges' responsiveness. As indicated, increased and successful college industry partnership has many advantages that go beyond skills training for learners.

The next section will discuss the term *partnership* in the context of higher education. It will start off by providing the range of definitions that exist and then outline the importance of partnership for TVET colleges.

2.5.1 Partnerships

This section will review the definitions of *partnerships* by a range of researchers and move on to discuss partnerships between industry and higher educational institutions. The term

partnership has a different meaning and connotation for different people (Uhlik, 2005). According to Uhlik (2005; 14), a partnership is "an ongoing arrangement between two or more parties based upon satisfying specifically identified, mutual needs". Furthermore, "a partnership is a dynamic arrangement between two or more parties, based on satisfying mutually recognised needs" (Uhlik, 2005:27).

There are different types of partnership that exist, such as the 'private-public sector partnership' and 'social partnerships' (Singizi, 2011), but of more relevance to this study are an 'education partnership' and a 'learning partnership'. Singizi (2011:7) provides definitions of the different types of partnerships, including:

- An *education partnership* is "a partnership developed between an education organisation and a prospective business employer for the purposes of two-way learning about the practical and theoretical dimensions of school and the world of work in order to complement classroom-based learning with the intention of learners being better equipped to enter the world of work." These type of partnerships have been researched and will be presented at a later stage. These partnerships exist between the two TVET colleges and the four businesses.
- A *learning partnership* is "one in which the parties within a partnership are committed to a learning agenda for their own professional development, for furthering understanding about the focus of the project, and a deeper understanding of the practice of partnerships." An example of this type of partnership is when TVET students are placed within businesses for learnerships, work-integrated learning and apprenticeships.

In South Africa, there is an increased need for TVET colleges to forge partnerships with businesses and industry (White Paper, 2014) to address socio-economic challenges, such as the high unemployment rate. Academic experts, researcher and the current Minister of the DHET have been advocating for college-industry partnerships.

Akoojee, 2007 wrote that the ability to build and sustain effective partnerships will be a key competitive advantage for universities in an age of the global educational village. Even though TVET colleges receive a majority of their funding from the government, industry partnerships

are important and can be mutually beneficial for all partners involved. A successful partnership between TVET colleges and businesses and industry has the potential to enhance the quality of TVET graduates while skilling the learners.

A number of academics have conducted research on the topic of TVET and employability. The following section will discuss the findings by some of the researchers.

2.6 Past studies on employability and TVET

This section of the literature will briefly highlight the findings of other researchers around the topic of TVET and employability. Edeh (2016) conducted research in Nigeria on TVET college- industry partnership for employability of TVET graduates through Work Integrated Learning (WIL). WIL is a programme that incorporates industry-related activities with closer participation and partnership with industry (Freudenberg, Brimble & Cameron, 2011). The study employed a descriptive survey research design and was carried out in Nigeria's public universities which offer TVET programmes.

Key findings and conclusions were that the implementation of WIL in Nigerian universities is low. Below the contributing factors are listed (Edeh, 2016):

- Poor awareness of employers and the TVET institutions on the benefits of implementing WIL;
- Ineffective implementations of WIL by TVET institutions in collaboration with business and industries;
- Poor funding policy and support for effective implementation of WIL by TVET institutions; and
- Outdated TVET curriculum.

In conclusion, Eden (2016) recommended a stronger partnership between businesses and industry and TVET institutions to be forged and for government policies to support the development of these partnerships. Eden (2016) also recommended that the government increase funds allocated to TVET programmes in order to ensure the success of the implementation of WIL.

Taylor and Pereira (2004) conducted a qualitative study aimed at investigating the role of college-industry partnerships on graduates' employment. The research used a case study methodology, researching formal college-industry partnerships in five TVET colleges in South Africa. The TVET colleges were (1) Ekurhuleni East TVET College, (2) South West Gauteng College, (3) Central Johannesburg TVET College, (4) Tshwane South TVET College and (5) Tshwane North TVET College. All of the case studies were initiated by the partner industry and findings illustrate that the college-industry partnerships have increased the prospects of work opportunities for learners with some learners being absorbed by the partner company (Taylor & Pereira, 2004). The challenge highlighted by Taylor and Pereira (2004) is that most TVET colleges are not proactive with establishing partnerships with businesses. Taylor and Pereira (2004) recommended that TVET colleges conduct research and identify areas of scarce skills in their respective local market and approach companies to initiate partnerships. Furthermore, they recommend that college-industry partnerships should not be restricted to the to the formal learnership model written in the National Skills Development Strategy (NSDS), as this limits creativity for new models of college-industry partnerships.

Thindwa (2016) conducted research on the employability of TVET graduates in Malawi using qualitative research methods. Thindwa (2016) argued that the majority of the businesses and industries in Malawi prefer employees with skills accompanied by a qualification they deem suitable. Thindwa (2016) found that there are barriers that led to TVET graduates not being preferred candidates by employers and these include an outdated curriculum which is not aligned to the businesses and industry requirements, which in turn affects the quality of the graduates.

Raimi and Akhuemonkhan (2014) carried out research in Nigeria on the impact of TVET on employability and national development. Through a qualitative research methodology, Rami and Akhuemonkhan (2014) found the following to be true:

- TVET has a limited impact on employability.
- TVET effectiveness has been affected by a number of environmental factors, such as funding, synergy with industry, and policy implementation.

The above literature suggests that the employability of TVET graduates is influenced by varies factors. Furthermore, the findings in the two African countries illustrate that employability is viewed as a dependent variable, such as skills obtained and the social and economic status of the institutions. However, it is evident that TVET institutions are important for improving the quality of the workforce. Finally, the literature illustrates that there is a need for policies to encourage more learners to enter into TVET colleges.

2.7 Two technical and Vocational Education and Training Colleges in Gauteng

The research was conducted at two TVET colleges in the Gauteng Province. The two TVET colleges were established in 2002, following a merger of 152 technical colleges into 52 multi-site TVET colleges. The two colleges will be referred to as College A and College B.

Both the TVET colleges have more than three multi-site campuses, each specialising in different courses, such as Business Studies, Engineering and Utility Studies (for example, Early Childhood Development and Clothing Production Skills). The colleges offer NATED, NC (V), skills and learnerships programmes across a wide range of fields including Engineering, Information Technology, Hospitality and Tourism. The main objective of the study is to understand the factors that influence the employability of TVET learners.

2.8 Conclusion

In conclusion this chapter presented the education system in South Africa and looked at the history of the TVET sector, outlining some of the reasons behind the current state of the technical and vocational training sector. Core to this debate was the discussion of the different policies that have been implemented and the relationship between the TVET sector and businesses. In light of the research that has been concluded around this topic, there seems to be a knowledge gap on why TVET colleges are not reaching out to industry to build close relations and to work best to meet the needs of industry, as this relationship will benefit all stakeholders. This research is important as it engaged with potential employers to determine the factors that influence the employability of TVET graduates and also engage with TVET colleges to get a better understanding of the employment rate of its graduates.

3 CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter builds on the literature presented above, which serves as a background to both inform and underpin the study of the employability of TVET graduates. This chapter is divided into three main sections. First, it describes the research design adopted in this study to answer the research question and subsequent sub-question. A discussion of qualitative research methods and its techniques used during fieldwork will be presented. For the purpose of this study, the researcher opted for a qualitative approach, foregrounded in the case study methods. The second part will provide a discussion of the methods used for data collection and analysis. Lastly, the limitations that influenced the fieldwork and the ethical principles observed to protect the integrity of the research study and enhance the trustworthiness of the study are discussed.

3.2 Methodological Approach

To start of this section, the characteristics of qualitative methods are discussed in order to assist with the supporting of a qualitative approach. This research used qualitative research to explore the "factors that influence employability of TVET graduates." Leedy and Ormrod (2010) define qualitative methods as providing a deeper description of the phenomenon as it occurs in its natural settings. Strauss and Corbin (1990:17) further posited that qualitative research is "any kind of research that produces findings not arrived at by means of statistical procedures or any other means of quantification." Therefore, the focus lies on the interpretation of data and seeks meaning of human behaviour, words, opinions, and experiences, rather than numbers (Creswell, 2009; Mohajan 2018). Qualitative research seeks to investigate "the way in which people interpret, and make sense of their experiences to understand the social reality of individual" (Mohajan, 2018: 2; Atieno (2009:4) put it simply when he wrote that "qualitative methods have in common the goal of generating new ways of seeing existing data,". The value in this approach exists in its inherent ability to simplify and manage data without destroying complexity and context (Atieno, 2009). The data collected during qualitative research conveys the views, motives, and actions of individuals and the environment in which they find themselves (Myers, 2009). This means that in qualitative research the ability to control a variable is not usually present. Therefore, there is an openness to the natural occurrence of themes, which the researcher will discuss later (Henning, Van Rensburg & Smit, 2004).

The main criticism about directed towards qualitative research is primarily grounded on the aspect of validity and reliability (Mayring, 2003), stating that replicability is subjective and very difficult, due to the personal involvements of the researcher in a rather open study (Mayring, 2003).

Cohen, Manion, and Morrison (2017) have said that the nature and objective of a research question determine the type of research design, methodology, and the techniques to be used during a study. This research adopted a qualitative research strategy in order to answer the main research question "factors that influence employability of TVET graduates" and the subsidiary questions. This approach was used because qualitative research techniques enable a process of in-depth understanding of a context that is being studied (Punch, 2005).

3.3 Role of the Researcher

Kuper et al. (2008: 450) stated that "it is necessary for qualitative researchers to identify their own contexts so that it is clear how their own views and beliefs may influence the interactions they have with their participants." I currently work at the DHET in the Directorate: International Scholarship. Although I do not work directly with TVET colleges, in 2013 I worked briefly on a project which included a comparative study between South Africa and Germany TVET colleges. This project sparked my interest in TVET colleges. I believe it was important to affirm participants that their contribution will in no way influence their positions at the colleges. It was important for me to respect the response of the participants at all times.

I maintained an informal cordial approach throughout the interviews. This assisted with allowing the participants the opportunity to respond elaborately in a relaxed atmosphere.

3.4 Verification and Validity

In the context of this research, *reliability* refers to the question of whether a repetition by different researchers, or by the same researcher at another point in time and place, would derive the same result (Silverman, 2006). However, achieving reliability is especially difficult in qualitative studies. Taylor and Bogdan (1998:9) wrote that "it is not possible to achieve perfect reliability if we are to produce valid studies of the real world". Furthermore, qualitative studies emphasise validity and they "are designed to ensure a close fit between data and what people

actually say and do" (Taylor & Bogdan, 1998:9). In ensuring reliability of qualitative research it is imperative that the researcher employs the following research strategies (Noble & Smith, 2015:2), "acknowledge biases in sampling and on-going critical reflection of methods to ensure sufficient depth and relevance of data collection, establish a comparison case seeking out similarities and differences and demonstrate clarity in terms of thought processes during data analysis and subsequent interpretation". The suggested strategies were utilized in this research report.

Silverman (2006) suggested that researchers should display their research processes as well as the choice of theory in a transparent way so that the steps taken can be followed, understood, and reproduced by others. He further argued that readers of a research report should be able to access the concrete observations made, not only summaries or generalisations (Silverman, 2006). The question of reliability in qualitative research is whether a study accurately presents the data found (Silverman, 20006). Silverman (2009: 472), suggests five approaches in enhancing the reliability of process and results which are; reputational analysis, constant data comparison, comprehensive data use, inclusive of deviant t case and use of tables. These research strategies were employed during data analysis in order to ensure the validity and reliability of the study.

3.5 Data collection: A Case Study Approach

This research focused primarily on the use of the qualitative case study approach in exploring the factors that influence employability of TVET graduates, looking at the curriculum, the quality of TVET graduates and lecturers of the two colleges. A combination of data collection methods, including in-depth interviews and document reviews (in the form of archival methods), were used. At the beginning of the research, the researcher had a set of research questions which had to be altered slightly once fieldwork began. The one sub-question which was removed was asking about the employment rate of TVET graduates from College A and B. It was clear, once engagement with college staff members' began, that the colleges' do not keep records of this information. Therefore, the question had to be removed.

The interviews took place with respondents from the colleges (including Student Support Services (SSO), Academic Planner, and Project Managers). Local businesses and document reviews from colleges found on the internet were used. Yin (2003) and Stake (1995) stated that

there are two key approaches that guide case a study methodology; both seek to ensure that the topic of interest is well explored and that the essence of the phenomenon is revealed. This is why the case study approach was considered the most appropriate approach in that it would help find rich data to enrich the study and help determine the factors that influence the employability of TVET graduates.

The qualitative research method, in particular, is for a researcher seeking an understanding of how different entities collaborate. Specific to this research are the factors that influence employability of TVET graduates..

3.5.1 Why a Case Study Design?

According to Yin (2003) & Gray (2009), a case approach is deemed appropriate to researchers seeking to evaluate a widespread of diversified issues, including the evaluation of training programmes, organisational performance, the relationship between different sector and organization. In the case of this research study, a case study approach was deemed appropriate as it allowed for the comparison of the partnerships that exist between TVET colleges and the surrounding companies. The case study draws upon interviews with participants who are involved in preparing students for the world of work at the TVET colleges.

Patton (1990:99) argued that "the desire to evaluate individualised client outcomes is one major reason why case studies may be conducted…the need for case study data may be present whether the unit of analysis is an individual, program, organisation, or community". The aim of this research is to contribute both theoretically for education writers and practitioners for college and industry implementers in order to increase the employability of TVET graduates. Patton (2002:55) further reiterated that:

> *Case studies are particularly valuable in program evaluations when the program is individualized, so the evaluation needs to be attentive to and capture differences among participants, diverse experiences of the program, or unique variations from one program setting to another.*

This methodological approach was appropriate as it allowed the researcher to analysis partnership between colleges, DHET and local businesses, its formation, outcomes, benefits, and challenges.

3.6 Data collection

Three main sources of data collection were used during this research study: interviews with stakeholder' to understand their perception on the factors that influence the employability of TVET students, observation at the training centres, and documents obtained on the internet and at the colleges related to the placement of TVET graduates. The stakeholders included staff of both the colleges, the mentors at the colleges and HRM from local businesses.

3.6.1 Sampling method

Purposive sampling was used to identify key stakeholders in each training partnership. The research took place at two TVET colleges in the Gauteng Province and identified four local businesses. Merriam (1998:48) argues that "purposive sampling is based on the assumption that one wants to discover, understand and gain insight; therefore, one needs to select a sample from which one can learn the most". To put it differently, in order for the researcher to learn as much as possible about factors influencing the employability of TVET graduates, the subjects studied needed to be directly involved in the partnership.

The main reason the two colleges were chosen as the case studies was that the colleges are situated in the same city; therefore, both colleges offer the same programmes and their students are hired by the companies that operate in the same area. A comparative analysis is most beneficial when factors being examined are the same. The differences between the TVET colleges is their approach to local businesses and their efforts to harness and maintain the partnerships.

3.6.2 Target population

The target population for this study was from the three stakeholders; staff members of both the colleges, and selected business partners, and one government personnel. This was based on the assumption that they would generate content-rich data for the research study (Patton & Cochran, 2002). Through on-going discussion with college representatives, they supported the research and shared contact details of companies that they have close partnerships with.

The study focused on two TVET colleges in the Gauteng Province and four surrounding businesses which they were in partnership with and the 'population' from which the sample (participants) were ultimately selected was as follows, see table 3.1:

Table 3.1: The table below represents the sample size and structure.

Institution	Respondents
'College A'	• 2 Head of Department for Business Studies & Engineering Studies • Marketing Manager • Project Manager • Student Support Services Officer
'College B'	• Head of Department for Business Studies • Project Manager • Student Support Services Officer
'BankCo'	• Human Resource Manager
'Hotel Dimension'	• Human Resource Manager
'AAA Fair'	• Human Resource Manager
'Construction Pty'	• Human Resource Manager
Department of Higher Education and Training	• Director: TVET Colleges • Deputy Director: TVET Colleges
Total	• **13 Respondents**

At both TVET colleges, interviews started with the project manager to get clarity on the college's role in placing students for workplace-based training programmes. Thereafter, the researcher met with the college's Head of the Department for Business Studies and Engineering and lastly the Student Support Services Officers (SSO) of both colleges. The SSO shared insight on employment data of the colleges. The last set of interviews took place at the local

businesses, where students participate in workplace-based training with the mentors and HR managers responsible for training TVET students.

A DHET official who is responsible for TVET college curriculum development was interviewed. This interview provided an insight into the plans and interventions outlined by the government to ensure the employability of graduates' from TVET colleges.

3.6.3 Data collection strategies and process

Qualitative data methods are necessary for identifying, documenting and confirming aspects of human life or behaviour (Terblance, 2017). Wiersma and Jurs (2005:78) wrote that "educational knowledge, must be closely linked to patterns, beliefs of human groups, in this case, TVET college staff and the surrounding businesses, and appropriated to discover the subjective meaning of those involved in a particular context or situation".

With the case study analysis, the researcher had an opportunity to compare and contrast the similarities and difference between the two TVET colleges and the company they engage with (Yin, 2003). For example, all four business partners indicated that there was no government involvement in the establishment of the college-industry partnership in order to ensure student placement.

The data was acquired through comprehensive interviews and a document review. The researcher obtained permission to conduct research at the college was granted by the colleges (see Appendix A) and the college managements facilitated the participation of the project manager, SSO and head of departments.

3.7 Interview methods

For the purpose of the research study, semi-structured interviews were deemed appropriate as they allowed for fluid and flexible questions to a small sample of participants in order to explore individuals' experiences or views on the researched topic (Pole & Lampard, 2008). According to McMillan and Schumacher (2010), open-ended questions are used to probe throughout the interviews and they allowed the researcher to ask follow-up questions based on the responses received. According to Jamshed (2015), semi-structured interviews are in-depth interviews allowing the researcher to ask open-ended questions probing the opinions of respondents.

The names of the participants from both the colleges and local businesses were recommended by the college Project Managers, after which the participants were contacted and invited for an interview at a convenient time and place. The interviews took place at both College A and B offices and the relevant businesses. The setting of the interview was therefore natural for the participants and allowed the participants enough privacy to feel relaxed and to answer honestly. At the beginning of each interview, the purpose of the research study was explained and the participants were given a consent form. The duration of the interviews was 30 to 45 minutes and were conducted in English.

The purpose of the interview questions was to gather in-depth and rich information from college and local businesses participants about the factors that influence the employability of TVET graduates. This was achieved by listening to the narrative stories about the TVET graduates and the employability thereof. Following the analysis of a series of interview questions that prompted a more in-depth understanding. The research questions focused on the factors that influence the employability of TVET graduates and the interview questions can be found in Appendix B. Interviews were audio recorded and the interviews were transcribed fully. In cases where interviews were conducted in a noisy environment audio recording did not take place, however, the researcher took notes which were fully written up.

3.8 Data Analysis

The data were analysed using thematic analysis. Thematic analysis, as defined by Maguire and Delahunt (2017), is the process of identifying patterns or themes within qualitative data. The goal of thematic analysis is to identify patterns or themes in the data which are important or interesting, and use these themes to answer and address the research question (Maguire & Delahunt, 2017). This goes beyond summarising the research findings and grouping them. A good thematic analysis interprets and makes sense of the data (Clarke & Braun, 2013). The written notes from the interviews were summarised using thematic analysis. *Thematic analysis technique* refers to the grouping and refining of notes to identify a list of common themes in order to express the views of all participants (Anderson, 2005). Thematic analysis is usually described as “a method for identifying, analysing and reporting patterns (themes) within data” (Braun & Clark, 2006:79).

Clarke and Braun (2006) provided a six-step framework for conducting thematic analysis (see Table 3.2). In the analysis of the data, the researcher moved from one step to the next; however, the phases were not linear. Maguire and Delahunt (2017) supported this and further stated that you may move forward and back between the phases, particularly if dealing with a great deal of complex data. The proximity of the TVET colleges allowed the researcher to go the college more than once to speak to respondents.

Table 3.2: Clarke & Braun's six-phase framework for doing a thematic analysis.

Step 1: become familiar with the data	Step 4: Review themes
Step 2: generate initial codes	Step 5: Define themes
Step 3: search for themes	Step 6: Write-up

3.9 TRUSTWORTHINESS OF THE STUDY

Lincoln and Guba (1986) argued that researchers must always aim for integrity, truth, and credibility when conducting research. Trustworthiness consists of four components, including; (i) credibility, (ii) transferability, (iii) dependability and (iv) confirmability (Devault, 2018). Various measures were incorporated to enhance reliability and trustworthiness in the research study. One of the measures included the accuracy in the questions asked during the interviews and the precise recording of the responses. The credibility of the data was confirmed through a cross check of written interview notes and the recording during write-up. In addition, in the beginning of each interview I declared to participants that I am employed by the DHET as a Deputy Director in International Scholarships. Although I am not directly working with TVET colleges it was important to declare my possible biases and assumptions.

3.10 ETHICAL CONSIDERATION

It is imperative that the researcher takes into ethical considerations when engaging with participants. Social sciences research involves ethical issues because it involves collecting information from people and about people (Punch, 2005:276). Therefore, it was important that the researcher takes great care and aims to ensure observance of the approved ethical considerations in engagement with all research participants. Miles and Huberman (1994) n

their book mentioned 11 ethical considerations that need to be addressed before and during a research study involving human beings. Six key considerations were applicable to this research and were addressed; these are detailed below:

1. *"Informed Consent:"* A consent form used by the researcher during the interviews was approved by the University of the Witwatersrand Research Ethics Committee (see Appendix C). Every respondent was given a consent form to sign before the interview began.

2. *"Permission*:" Each college issued permission letters to the researcher granting authorisation to conduct fieldwork at the college (Appendix A).

3. *"Research questions:"* These were the research tools during the semi-structured interviews. (Appendix B).

4. *"Honesty and trust*:" This research study was carried out with highest level of honesty and integrity and the researcher will keep the promises made to participants to share copies of the research report (where such was made).

5. *"Privacy, confidentiality, and anonymity*:" A consent form (Appendix D) was distributed to each interviewee before the interviewed commenced. The consent forms promised anonymity and privacy through the use of pseudonyms. Consequently, the researcher has kept the promise. As previously mentioned, the interviews were conducted at a venue chosen by the participants, where the respondents were comfortable and could openly speak about the employability of TVET graduates.

6. *"Data safekeeping*:" The fieldwork data were stored on the researcher's laptop with a password and hardcopies and written notes were safely placed in the family library. Furthermore, this research data will be kept for a period of over five years as per the ethical requirements.

The data retrieved during fieldwork posed little or no risk to the participants or their employment at the colleges and/or businesses. All the responses were kept confidential.

The companies have been given pseudonyms used for the purpose of confidentiality, likewise the colleges were renamed in the research and analysis chapter to maintain anonymity outlined

in the consent form and specific participants have not been identified for this study, due to the reputation of the colleges and the local businesses.

It is worth noting that this research is a representation of a small scale in the TVET sector in South Africa, given the size of higher education and training system in South Africa. However, the case studies provide information that can be used to improve the employability of TVET graduates.

3.11 LIMITATION OF THE STUDY

The researcher initially aimed to get data of how many students are employed by local businesses upon completion of their studies at two TVET colleges in the Gauteng Province. However, both colleges do not keep employment data of their graduates, therefore it was not possible to get actual figures of employability of TVET graduates. As a result, the study then focused on the factors that influence employability of TVET graduates using the experiences and opinions of staff members from local businesses and the two colleges. Another limitation of the research study was that during field work, no students were interviewed to understand the employability of TVET graduates from the student's perspective.

3.12 CONCLUSION

Outlined in this chapter are the methodological approach, sampling, data collection and data analysis that were used during the research. The measures to enhance credibility, validity, and trustworthiness were explained. Lastly, the ethical consideration was presented used to understand the conditions and factors that influence the employability of TVET graduate. The findings as they pertain to each of the four case studies will be reported in the next chapter.

4 CHAPTER 4: FINDINGS AND ANALYSIS

4.1 Introduction

This chapter presents the key findings of the data collected to respond to the research question, what are the factors that influence the employability of TVET graduates? A comparative case study of two TVET colleges in the Gauteng province.

The chapter will start by outlining the contextual background of where the study was conducted, in the Gauteng Province, followed by a discussion of the two TVET colleges. Thereafter, the findings of the research question, "factors that influence the employability of TVET college graduates", will be analysed and presented in detail.

The data was collected from two TVET colleges and four surrounding businesses situated in the Gauteng Province. The findings will be presented through a set of four key themes which emerged from the qualitative research: (i) curriculum challenges, (ii) student placement and experience gained, (iii) readiness of students for the workplace, and (iv) the relationship between colleges and potential employers.

4.2 The Context and Descriptive Background

South Africa has a population of 57.7 million and the youth between the ages of 15 to 34 years make up 35.7 percent of the total population. South Africa has a high unemployment rate of 27.1 percent, with 54.7 percent being youth (StatsSA, 2018).

The high unemployment particularly amongst the youth reflects the importance of TVET colleges to prioritize its responsive and alignment to the economic needs of the country. Taylor and Pereira (2004) have criticised TVET colleges, citing that the skills passed onto to students do not equip graduates for the world of work. Further, they said that the weak industry linkage between TVET colleges and industry contributes to unemployment and poverty in South Africa.

South Africa consists of nine provinces and this research was conducted in the smallest province, which is the Gauteng Province. Gauteng is also referred to as the metropolitan provinces and it has the highest of South Africa's population at 24 percent (StatsSA, 2016). The population has grown significantly over the past 10 years, with a growth of over 10 percent

(StatSA, 2016). The province has three metropolitan municipality districts namely being the City of Ekurhuleni, the City of Johannesburg and the City of Tshwane. The Gauteng Province serves as the economic hub of the country, in 2016 Gauteng was responsible for over 35 percent of the country's Gross Domestic Product (StatsSA, 2016).

In 2016, Statistics South Africa (2016) wrote that over 28 percent of Gauteng's population consists of youth between the ages of 15 and 34 years. The unemployment rate amongst the youth was at 28 percent and above in 2018 (StatSA, 2018). Gauteng Province consists of seven public TVET colleges and eight universities of technology and

4.2.1 A Brief description of College A and College B

College A is a merger of four former Technical Colleges. TSC offers various programmes and courses including NATED programmes, NC (V) programmes, skills programmes and learnership programmes, across a wide range of fields including Engineering, Business Studies, Hospitality, Tourism and Finance Economics and Accounting.

College B is public multi-sited public college, located in the Gauteng Province College B consists of six campuses offering different courses and programmes such as Business Studies, Engineering and General Studies.

4.2.2 Local Businesses

The research identified four local businesses which take students from both TVET colleges for workplace-based training. The research study investigated the following partnerships with each company given a pseudonym for the purpose of anonymity:

- A partnership with a bank, the bank is referred to as 'BankCo';
- A hotel company referred to as 'Hotel Dimension';
- A state-owned entity which has been given the pseudonym 'AAA Fair'; and
- A construction company referred to as 'Construction Pty'.

All four companies take students for workplace training programmes and they have employed TVET graduates before. The companies were purposively selected as they have first-hand

experience with students from the TVET colleges. The next section will present the findings and analysis.

This section presented a brief outline of the background of where the study took place outlining the country youth population and the unemployment challenges in the Gauteng Province. It also presented information about the two TVET colleges and four businesses involved in this research study. The next section will present the research finding and analysis.

4.3 Research Finding and Analysis

The research findings have been divided into four themes; the curriculum challenges at TVET colleges, student's workplace-based training placement and the experience gained, the readiness of students for the workplace and the relationship between colleges and potential employers.

The four businesses take students from both colleges for either learnerships or Work Integrated Learning (WIL), these terms are synonyms and the two will be used interchangeably, but for the purpose of this study the researcher will refer to the training provided as "workplace-based training".

4.3.1 Curriculum Challenges

The main question probed under this theme was whether the two TVET colleges offer programmes that are responsive to the needs of the surrounding businesses, particularly for programmes that fall under Business and General for a fair comparison between the two colleges. The findings presented in this theme highlight the perception of the two colleges and local business on the courses offered and the challenges experienced.

Terblanche (2017:82) in her report wrote that the concept of 'curriculum' in TVET colleges, involves;

> *Everything a person needs to learn in a structured and unstructured manner that will prepare him or her for the world of work and become an economically active citizen…in TVET College's curriculum is viewed as a composition of structured theoretical, practical and workplace learning component*.

The programmes offered at TVET colleges A and B will be presented under this theme, highlighting the perception and experiences of the DHET, TVET colleges and the four local businesses. According to the White Paper on PSET (DHET, 2013), DHET's primary mandate for TVET colleges is to strengthen and expand the colleges through

> *Building partnerships with employers and other stakeholders, increasing the responsiveness of colleges to local labour markets, improving placement of college's graduates in jobs, and creating a mix of programmes and qualification that will meet the varied needs of industry* (DHET, 2013:12).

The above emphasise the college's central role of providing economically-relevant skills and knowledge to South Africans. TVET colleges are tasked with a mandate of producing graduates that possess skills that are responsive and aligned to the economic needs of the country. The course and programmes offered at TVET colleges are determined by the management of the colleges.

College A's Head of Departments (HoDs) for Business Studies and Engineering Studies indicated that the courses and programmes offered at the various campuses are partially responsive to the employment needs of the surrounding businesses. The HoD at College B mentioned that courses at their college are chosen based on the surrounding businesses that surround their college Interestingly, the Student Support Services Officer (SSO), at both the colleges shared a different opinion, asserting that the colleges can do more in order to ensure that programmes offered are aligned to the skill needs. An example presented by the SSO from College A was that:

> *The college still offers Human Resources (HR) and Management Assistant (MA) even though students are struggling to find workplace-based training programmes and employment upon completion. It does not make sense why our college is not conducting research of the skills requirement of the nearby businesses nearby and change the courses? For example, there is a need for legal secretariats. However, as the college, we continue to offer HR and MA when our students are struggling to get placement upon completion of their qualifications. Colleges need to be more strategic with the programmes offered*

as our graduates compete with students from universities nearby for employment.

The HoD at College B concurred that the college should be conducting its own needs-based analysis research of the communities they operate in. He added that the college has intentions to improve its relationship with surrounding businesses and it plans on conducting an extensive study of nearby companies to improve its responsiveness. He stated that this will assist the college:

In the Engineering sector, I could say that the college is offering good programmes because we have good relations with the two motor companies nearby. However, there are many malls and lifestyle centres that have been developed and I think there is a gap that the college can tap into. We need to start offering courses in the retail space. I think there is a missed opportunity there.

The two HoDs from College A indicated that the course curriculum of NATED programmes is outdated and explained that the curriculum has not been updated in over ten years and as a result has not evolved with the new ways of doing things. One of the HoDs from College A provided an example to support her argument of why she believed the TVET curriculum was outdated. She explained the following:

The NATED programme's curriculum is very outdated and has not been updated in decades. The curriculum is not relevant to today's world and the way things are done. It is not aligned to changes in technology and new equipment in the industry. For example, in Hospitality the curriculum still refers to mixing with spoons and calculates in ounces as opposed to grams, which is the measuring system that is now being used with the new technology.

The respondents from the four local businesses were of the opinion that the TVET college curricula needs to be updated regularly. All four business respondents agreed that the TVET college curriculum needs to be developed by both education experts and industry, as stated in the White Paper on PSET (DHET, 2013).

According to the White Paper on PSET, the TVET curricula must be developed in collaboration between academics and industry. The DHET respondent who is a Director in the TVET Branch explained that the TVET colleges in its quest to improve its alignment and responsive to the labour market introduced different program offerings. These programmes include the NC (V), WiL, and learnerships. The introduction of these programmes has led to NATED courses curriculum being neglected over the years, however, he argues that industry continues to advocate for NATED programmes, especially in the Engineering sector. He went on to explain that:

> *The updating of the curriculum for NATED programmes has been neglected over the past few decades and the entire curriculum was last updated in the 1990s…the government attempted to update the programme in 1994 but it was not for all NATED courses.*

The difference in opinion between the respondents suggests that DHET does not have updated information about what businesses require, and, if the DHET does have this information, it is not reflected in the TVET colleges' curricula. Additionally, this suggests that there is limited collaboration between the DHET, TVET colleges and businesses.

4.3.1.1 Process to update curricula in TVET colleges

According to the DHET representative, the TVET curriculum is supposed to be updated every three years. This, however, is not the case in public colleges. The process to draft and gazette an update to the curricula can take between 18 to 24 months and the department is working on updating the NATED courses curricula for the first time in decades, said the DHET respondent. The DHET representative said that the new curricula would be introduced in TVET colleges in 2020. He indicated that all the public TVET college councils and some industries were invited to provide input.

The DHET respondent posited that, in the case when TVET colleges want to discontinue courses, colleges are required to write to the department citing their reasons. Once the DHET has approved this request the college starts by phasing out the courses in stages. An HoD from College B said that they were in the process of phasing out Human Resource, as they noticed that fewer companies were taking students for work experience.

The DHET respondent went on to explain the process that colleges have to go through in order for a new programme to be introduced. He explained that if TVET colleges want to introduce a course, the process is that they write to the department motivating their reasons for the request and the department will request curriculum vitae of the lecturers who will be teaching the new course and, if necessary, the department will send officials to the college to assess whether there are facilities to teach these subjects. The DHET representative indicated that what the Department had noticed is that:

> *Some TVET college sends the Department CVs of people who are working at the college but are not lecturers. The Department authorizes the college to offer a course, meanwhile they have falsified qualification of their lecturers. This is a concern for the department.*

The quote above highlights a great concern for the TVET system. Colleges should not lie about the qualification of their lecturers. If they continue with being dishonest with the DHET, it will be difficult for the DHET to determine the magnitude of the problem of unqualified lecturers. The issue of unqualified lecturers is discussed in the next section.

4.3.1.2 Quality of TVET lecturers

The DHET (2014) report on the *Qualification Profile of Lectures Employed in Public TVET Colleges in South Africa* indicated that most TVET lectures either have work experience but no pedagogy knowledge or teaching qualification with no work exposure. Research has found that very few TVET lecturers are qualified for the job (DHET, 2014).

Some of the lecturers are not qualified to work at TVET colleges. This was echoed by all four of the business representatives who take students WIL programmes. The business respondents from Hotel Dimension and AAA Fair indicated that some of the lecturers have never worked in industry. Citing that it is important for TVET lecturers to possess vocational skills and for lecturers to continuously be exposed to the workplace in order to get a better understanding about the courses that they are teaching especially because TVET courses include both theory and practical components. The respondent from BankCo said,

> *It is important that lecturers are also trained where students go for learnerships, so that when students return after the training everyone is on the same page. Lecturers and the colleges would benefits from industry exposure.*

Lecturers who do not have any workplace exposure are a disadvantage to the TVET students, said the respondent from Construction Pty. This statement was supported by the DHET representative, who indicated that most of the college lecturers either do not have any workplace experience and, if they do, they do not have a teaching qualification. This is particularly concerning as it implies that some of the lecturers are not qualified to deliver post-school education courses and the department is aware of this.

The HoD from College B, said that he worked for 15 years in the motor industry before moving to be a lecturer at the college. He said he did not have a teaching qualification but believed that his work experience equipped him enough to be a lecturer. In conclusion it is clear that most of the college lecturers are not qualified, some have industry experience with no teaching qualifications while others have teaching qualification with no industry experience. This is comprising the quality of teaching and learning at the TVET colleges.

This section has discussed whether the two TVET colleges offer programmes that are responsive to the needs of the local businesses. Having presented various related findings, it can be concluded that, although colleges have asserted that in the engineering sector their students have a relatively high placement rate (for workplace-based learning), there is room for improvement. There are various factors which contribute to this, such as the quality of lecturers at TVET colleges and the curriculum of the TVET programmes particularly the NATED.

4.3.2 Student placement and the experience gained

Hull *et al*. (2000) argued that the role of vocational education has to shift away from limiting skills training to working of a particular machine, and move towards a training which requires an integration of knowledge and practice between colleges and the workplace. In other words, it is important that there is cooperation between businesses and college's in order to ensure that the theoretical content taught at TVET colleges is relevant and aligned to the skills required by businesses. This is necessary as the TVET colleges mandate is to produce graduates who possess skills and knowledge that are relevant and responsive to the skills needs of businesses.

This section will present and discuss the placement of students for workplace-based training programmes and the work experience received during workplace-based training. The first section will highlight the funding challenges that surround workplace-based training programmes student placement, and move to discuss the availability of workplace-based programmes in local business. An explanation will be provided of the different type of workplace-based programmes that are offered by colleges and the duration thereof. Lastly, this section will highlight some of the challenges experienced by the colleges as a result of forming partnerships with businesses and government and state-owned entities.

4.3.2.1 Funding challenges

The main role of a project manager at a TVET college is to establish college-industry partnerships and to secure workplace-based training in businesses for students. The colleges' project managers spend a great deal of their time engaging stakeholders, such as the Sector Education and Training Authorities (SETA), the National Student Financial Aid Scheme (NSFAS) and local businesses, to try and secure funding in order to get opportunities for workplace-based training for the college's students. However, during an interview with the project manager at College A, she pointed to the stack of student CVs in her office and explained that the college is struggling to find workplace-based training within the businesses for all its students in the college.

The project manager from College A explained that, when students are doing learnerships programmes, they are either funded by the government or by the actual business. The below section will provide an example of both funding models.

Currently, both the colleges are mainly funded by the SETAs and NSFAS. In order for a SETA or the NSFAS to approve funding the colleges must provide be evidence of a signed an agreement between the college and the business, outlining the terms of the agreement.

The stipend offered by the various SETAs and the NSFAS is different. Students from the same college can be on different apprenticeship programmes for 18 months at different companies and receive different stipends. Different SETAs and the NSFAS offer different stipend amount to TVET students. TVET students can earn different stipends based on the funder; stipend

payment can vary from R1500 to R3500 per month, depending on the SETA or the company. This results in students changing between training programmes, said both Project Managers. The Project Manager from College A gave the following example:

> *There have been a few instances where I have been informed by a business that one or two of our students stopped their training without informing the business. When I contact the students to enquire they say that they moved to a higher paying training. Sometimes students walk away from an eighteen months learnership to move to a six months training because of the funding differentials.*

The Project Manager at College B added that, when students move from one learnership to another it is a challenge, as the college is trying to build relationships with local businesses. She went on to explain that this kind of behaviour has had major repercussions in the past, as some businesses have indicated that they do not want to take their students for workplace-based programmes because they do not complete the learnership programmes. The respondent from Hotel Dimension also pointed out that each year he has an average of about three students out of 15 who do not complete the programme.

The Project Manager at College A indicated that in 2018 the college discovered that ten of its students who were training at a motor industry company for 18 months WIL programme were 'double dipping' stipends:

> *Students signed contracts to receive a monthly stipend from the colleges. We had sourced funds from a SETA. When the students arrived at the motor industry company they were offered a stipend by the company and signed contracts with that company and that stipend funds were coming from a different SETA. It seemed the person who offered students the stipend was not aware that students were already being funded by the college. We only found out about this after eight months when one of the students came forward to confess.*

The problem of 'double dipping' is one that was also confirmed by the Project Manager from College B, who indicated that she had a similar experience in the past. Colleges need to get to the root of this problem. At present it seems that there is a communication

problem between businesses and the colleges. Colleges need to also address the 'double dipping' with their students before they start workplace-based programmes.

Hotel Dimension is an example of a business taking students from a TVET college and providing stipends out of its budget. Hotel Dimension takes an average of 15 to 20 students per year for a 12-month WIL programme. The hotel provides not only the monthly stipend but also accommodation to students for the duration of the WIL programme. The HRM at Hotel Dimension said that:

> *The training programme is designed in such a way that students are given an opportunity to rotate in between different departments, spending a minimum of three months at each department. This is to ensure that students are exposed to the four departments at the hotel. At the end of the programme, depending on the availability at the hotel, a few students will be hired on a contract basis especially during the hotel's peak season. In 2017, we employed 60 percent of the students who completed their learnership with us. The students were from both TVET colleges. This was the first time we had hired a big group, however, we had spaces available and we were impressed by the calibre and quality of students that we had.*

The respondent from Hotel Dimension highlighted some of the challenges he experiences with TVET students during the workplace training programmes, which will be discussed later in this section, but overall said the students were good. On average, Hotel Dimension spoke highly of the calibre of students they have hired from both the colleges upon completion of their WIL programmes.

4.3.2.2 The availability of workplace-based training programmes

Dlamini (2014) argued that TVET colleges were increasingly placing students at a simulated workplace area in TVET colleges, since colleges struggled to find workplace training programmes within local businesses. The Project Manager from College B outlined that the college relied on simulated workplace areas at the different campuses across the college because it is the college's responsibility to secure workplace-based programmes for students, but they struggle to fulfil their obligation. Dlamini (2014), in his report, found that one of the

reasons why TVET colleges are struggling to find work-based training programmes for its students is because they were competing with SETAs. SETAs have one-year fully funded learnerships and the SETAs approach the same companies as TVET colleges with a full package consisting of stipends. SETAs also have a mandate to train students. The project manager from College A concurred and indicated that:

> *We struggle to find placement for students in local businesses; therefore, we look internally at the various campuses for any opportunities and send our students to different mentors, depending on what they studied. We have found this to be effective as students are gaining the required experience and graduate.*

Dlamini (2014) articulated that across the SETAs and businesses there appear to be concerns with simulated workplace areas at colleges, explaining that the experience gained at a simulated workplace area at a college cannot be compared to real life training at a business. Dlamini (2014), reported that colleges in the Mpumalanga province were also using simulated work areas at the various campuses. The SSOs from College A and B expressed that less than 80 percent of its students are successfully placed annually for workplace training. There are a number of contributing factors to this, which were reported by the project manager at College A:

> *Sometimes businesses do not respond to the college's request, or they respond and say that they cannot afford to take on students unless we agree to pay for any injuries on duty. They sometimes say that they do not have enough staff members who have free time to mentor our students.*

The 20 percent consists of students who are studying Engineering courses, according to the SSO of College B. He explained that placement for Mechanical Engineering students was quite good and this contributed to the 20 percent of the workplace-based training. The HoD from College B explained that their college had close relationships with motor companies which operate in the same area. They find that most of their Engineering students do not necessarily struggle to find work placements. The project managers from College B argued that,

> *Popularity and demand for a programme influences the placement of a student. Companies are less likely to take students who are looking for workplace-based training who are studying Management Assistant.*

There are students who wait for up to three years before they can get workplace-based training, said the SSO from Campus A. This has a snowball effect for TVET students, as it delays their progression and completion date. The project manager from College B expressed the challenges that come with establishing the partnership with local business:

> *Establishing partnerships with businesses is not easy. We find ourselves continuously marketing the college to the businesses while trying to demonstrate the benefits of taking students for workplace-based training. Some businesses request for a proposal in the form of a businesses before they meet up with us to discuss the establishment of a partnership. This process delays the establishment of college-industry partnerships.*

The SSO from College A added that one of the other challenges faced by their college is that they are competing with nearby universities and companies usually prefer to train and hire universities graduates over TVET students. The SSO from College A said:

> *It is no secret that TVET colleges have administration challenges, such as delayed certificates, as this is one of the reasons why businesses do not want to invest in our students. There have been instances where students have informed me that they lost a job opportunity because their certificate is outstanding.*

The challenges cited above about the DHET's delay in issuing completion certificates has been ongoing. According to the DHET representative during a parliamentary meeting, the problem started in 2007 as a result of the State Information Technology Agency (SITA) system inability to process results of the TVET students (SA Parliament, 2018). It has been reported that the backlog has been significantly reduced, however, some colleges are still complaining about delays of certificates (SA Parliament, 2018).

Interestingly both the colleges' Project Managers declared that there has been a slight improvement over the past two to three years, with a higher number of companies taking students for workplace-based training. This can be attributed to the fact that students now get funding to pay for stipends. The Project Manager from the College expressed that she noticed the change in businesses a few years ago when the former Minister of Higher Education and Training use to advocate for partnerships between businesses and TVET colleges. The Project Managers from both colleges mentioned that more companies are opening doors to the colleges to enter into partnerships. The Project Managers continued to explain that although the numbers are still relatively low and a few students are being placed for workplace-based training they can see a slight improvement.

The Project Managers explained that although not all their students get into workplace-based training programmes, they noticed a shift in the local businesses. The Project Managers said that they were confident that things would get better in the upcoming years.

The project manager from College A raised concerns about recruitment agencies who contact the college to request for CVs of students, only to send them to companies for short-term employment, and earning commission for this. She added that this is frustrating because, in most instances, students are not receiving relevant skills, which are in line with their studies. The second challenge she mentioned was that small start-up businesses sometimes contact the college requesting for five to ten students and they use those students as cheap labour for marketing their businesses. The project manager from College A gave an example:

> *Some of our students have informed us that companies take them under the pretence that they will provide a short-term learnership. However, when they arrive at the company, students are informed that they must do promotional work, such as, standing at traffic lights or malls in order to distribute the companies' promotional material.*

The project manager from College A went on to explain that she is now more vigilant and careful with the companies that approach the college requesting students' curriculum. She added that if there is no agreement between the college and the business, she usually requests for contact details of the assigned mentor or supervisors who will be responsible for the students. She explained that she also often visits the companies where students are training or

contacts the mentors to enquire about the progress of the students. She indicated that this is a quality check mechanism for the college but also a way for her to build relationships with the businesses.

4.3.2.3 The Duration of workplace-based training

The duration of workplace-based training is stipulated in the curriculum of the NATED and NC (V) programmes (see Chapter 2). However, workplace-based experience that is secured by colleges varies from five days to eighteen months. Paterson et al. (2017:1) stated that all "students must be required to apply what they have learned from college-based theory and practical activities in a real working environment."

BankCo annually takes students from both TVET colleges A and B for a maximum period of five days. The purpose of the training, according to the HRM from BankCo, is to expose TVET students to the workplace by pairing them with a mentor who is working in the field they are studying for. There is no signed agreement in place, but the HRM from BankCo confirmed that their company annually contacts the two TVET colleges to request 20–30 students to train at their business. The HRM from BankCo explained that he believes that their organisation takes TVET students for short-term training as a 'box ticking exercise'. BankCo has not conducted any research on the TVET college programmes and the only time the company contacts the college is when we want to train on average 20 students for a period of five days. He explained that the way the training programmes are structured is not beneficial for TVET students. He cited examples of students being misplaced at BankCo:

> *Upon arrival TVET students are assigned to a mentor. It can be 2-3 students per mentor. What I have discovered is that, because we have not done enough research on TVET college curriculum and there has not been proper planning in place, often students are paired with the incorrect mentors. For example, an Engineering student was paired with a lawyer in the company while a Hospitality student was paired with a Sales Manager. Some students drop out of the training because of this.*

The purpose of the training is to expose students to the workplace and teach them basic skills about the workplace. However, as it stands with the short training from BankCo it is not clear if the objective is being achieved. The respondent from BankCo mentioned that;

> *The current training structure does not help the students significantly since the training is for a short period. In fact, at the end of the training, there has been a few instances where one or two students come up to me saying they are now confused with their career path and think they need to change their careers. Internally some of the colleagues have raised their frustration saying this training is not effective and not helping the students*.

The HRM cited he plans on doing things differently going forward. He said colleagues who have previously assisted with mentoring TVET students have complained that they do not believe that this training is effective for the students.

Not all companies which take students for workplace-based training have taken the time to clearly define the objectives of the partnerships. An unplanned and unstructured partnership between colleges and businesses is a wasted opportunity for the students.

The HRM from Hotel Dimension said there are some companies who take TVET students for work experience as a 'box ticking exercise' to reclaim the skills levy paid to government. An example, made by the respondent from Hotel Dimension is supported in the above example. It seems that some companies do not have clear goals and objectives of the training. However, it is also the responsibility of the college to ensure that the companies they are in partnership with at least understand the type of training that is required for their students, especially when the training is short. Colleges must set our clear objective for training partnerships.

4.3.2.4 Challenges of workplace-based training programmes

The SSO at College A told of a partnership that was unsuccessful and potentially detrimental to the students. College A entered into a partnership with a government department to take 40 students for 12 months of internship training. The agreement was that student would be placed in different departments in four provinces across the country.

The students who went to KwaZulu-Natal, Western Cape and Limpopo called the college saying that they are at the government departments and there is no one there to receive them. People at the government department were claiming that they were not aware of their arrival. When we contacted the national department, it was clear that there was an internal communication breakdown which lead to students not being planned for. In the end, it turned out that the provincial government departments where our students were meant to train were not informed about the partnership. The national department did not arrange and plan with provincial departments, and as a result, we had to book transport for our student to return back to Gauteng, we were fortunate that nothing bad happened to our students during this time.

The SSO went on to say that the biggest lessons from that partnership were that (i) implementation of a partnership must be written down and all parties involved must be informed in advance; (ii) the college needs to know the names and contact details of the mentors who will be training their students; and (iii) there is no need to send students outside of Gauteng, a focused approach is more appropriate.

The main outcomes highlighted in this section are that the TVET colleges are not fulfilling their mandate to secure workplace training for all its students and perhaps this could be because the programmes offered at the colleges are not as responsive to the needs of the local businesses as they need to be. Further, the two colleges need to interrogate the types of training offered by businesses and perhaps not take everything that is offered by a business.

4.3.3 The readiness of students for the workplace

This next theme will discuss lecturer's role in preparing TVET students for the world of work and the student's readiness for the world of work. This section will start by discussing the quality of TVET lecturers and move on to a discussion of the participants view on the quality of the TVET lecturers.

4.3.3.1 Separation of roles for colleges and businesses

According to the White Paper for PSET (DHET, 2013), see Chapter 2, the main purpose of TVET colleges is to train young school leavers to equip them with necessary skills, knowledge

and attitude for employment. What emerged as a great concern from HoDs, SSOs and businesses was that the majority of the TVET college lecturers do not have any industry experience. Some of the lecturers have not worked in an industry for over ten years, and there are others who have never been exposed to the workplace, said the HoD from College B.

It emerged during the research that lecturers do not participate in workplace training for students. The HoD from both colleges explained that lecturers do not have time to participate in workplace training during the teaching term; however, they could participate when the college is closed for a holiday break. According to the HoD at College A, some lecturers have said that they are not willing to sacrifice their holidays for training.

Concerns have also been raised by business respondents that lecturers are being left behind and they are missing out on an opportunity to enhance their skills by not participating in the workplace-based training. A respondent from BankCo, outlined that:

> *Lecturers need to participate in the workplace training programmes for students in order to be exposed on the most recent equipment and ways of doing things. The industry is a space that is continuously evolving and the college lecturers need to be exposed to these changes in order to enhance their knowledge and to adapt their teaching style and update the study material.*

Currently, the main responsibility of the lecturers is to teach the theoretical component of the TVET curriculum and the practical application is seen as the responsibility of the businesses and is offered through the workplace-based training. In the cases in which students are placed at the simulated workplace areas, the lecturers are responsible for the practical training as well (Dlamini, 2017). This was found to be true at both College A and B. This happens a great deal with students of Financial Management, Hospitality and Management Assistance, but it is not limited to these courses only, said the SSO from College B. However, lecturers do not have the skills required to teach students in simulated workplace area said the HoD from College A. Additionally the HoD said that:

> *Even if some of the lecturers do have industry experience, 5 to 10 years had passed since some of us were last working in the workshops. Our college does not have updated equipment in the simulated work rooms.*

The simulated workplace areas are a strong motivation for why college lecturers need to participate in the workplace training programmes. BankCo indicated that they are already in discussion with College B about the training or exposure of the college lecturers for a short period, in order to expose them to the practical side of what they are teaching.

There is an urgent need for synchrony of the theoretical content taught at the college with the training offered by businesses. The cooperation will assist the colleges in achieving one of their objects, which is to develop skills for local industry, commerce and public-sector institutions (DHET, 2013).

The HoD from College B supported this statement, however, and mentioned that the college is also aware and concerned about lecturers' lack of exposure to the world of work. The colleges need to work on improving these areas in order to improve the quality of its graduates and to ensure they meet the needs of local businesses, as stated in the White Paper on PSET (DHET, 2013). The White Paper on PSET (DHET, 2013) indicated that a great deal of attention should be given to improving the quality of TVET programmes and the capabilities of its staff.

There was a complaint from Construction Pty and BankCo, that there had been instances in which students arrive at their company unclear of the objective of the internship. This, according to the HRM from BankCo, is a challenge, because he spends the first two days of the five days of training taking students through the purpose of the training and explaining students' expectations. The HRM went on to say that some students leave after the two days because they believe that the training will add no value to their studies.

The HRMs from the four companies expressed their concerns about the quality of the students during the first few weeks of their workplace-based training. They cited that, in many instances when students arrive at the workplace, it is clear that they have not been exposed to practical ways of doing things. Some students struggle with what seems like the most basic things, like sending emails or using a photocopying machine.

One of the arguments made by the two HoDs from College A was that some students who enter the TVET system have a learning problem and some are high school dropouts. These students struggle with the NC (V) courses are difficult, said the HoD. They explained that:

> *Some of the students enrolled for NC (V) are not well equipped, because most of them only have Grade 9. These students do not have the foundation nor intellect for this programme and therefore they struggle. In some instances the content handled at NC (V) is much higher than the matric level. The curriculum of the NC (V) courses is difficult for some of its students. This is due to the educational and ability level of some of the students that enrol into the TVET college.*

The curriculum composition of NC (V) is 40 percent theory and 60 percent practical. Some students struggle with the theory side of their qualification, especially the fundamental subjects in Mathematics and English. The White Paper on PSET (DHET, 2013:11) also stated that the TVET colleges: "Cater mainly for those who left school, whether they have completed secondary or not, and learners who wish to do vocational training or complete their schooling." This structure has had unintended consequences of students who have different levels of skills and knowledge being in the same classroom, for both college lecturers and students, due to the students entering at different competency levels.

Respondents from Construction Pty and Hotel Dimension mentioned that, at the beginning of each training programme with the new student intake, students struggle with the practical application of their skills, such as using the equipment. For example, Hospitality students struggle with basic skills such as answering phones and dressing accordingly. The respondents from Hotel Dimension said:

> *The theoretical component at the colleges is not in sync and up to date with the reality. This is the reason why, in the beginning of a workplace training, I have to spend the first few weeks focusing on training students about the usage of equipment. This is a big concern for us because we expect the student to know about some of these things because they come from a TVET college.*

The comment above illustrates concerns from businesses about a gap in vocational training of TVET students. Business respondents mentioned that, in most instances at the beginning of a workplace training programme, TVET students have to be taught everything from the

beginning, which is disappointing because students come from technical and vocational colleges.

4.3.3.2 Soft skills training

The common concern among the four business respondents was about the lack of 'soft skills' or work etiquette from the TVET students. The respondents from Construction Pty said:

> *By the time we get TVET students, we are expecting them to be at a certain level because they come from a technical college. However, we are usually disappointed and have to put in many hours training what may seem like basic skills such as "soft-skills". Students do not know how to dress appropriately for work, while some students struggle with communication and time management.*

Both TVET colleges supported this statement and explained that they believe that the current curriculum was adequate to prepare students for the world of work until the colleges began to take its own students for workplace training. The SSO from College B said that the one year she was mentoring an NC (V) students, for workplace-based training, and discovered that the students do not have what would be deemed as "basic work etiquettes". Work etiquette, as described by Lahti and Valo (2013), is a code of conduct that governs the expectations of social behaviour in the workplace. This includes a wide range of aspects, such as communicating effectively, body language, dress code, good behaviour, and working well with others.

Both the SSOs at the colleges indicated that they received complaints from various campus managers and other colleagues from the colleges who were mentors of students during the workplace training. The complaints were largely around work etiquette or lack thereof, said one of the SSOs.

> *Students would sometimes arrive late or not come to work without informing anyone…some students use to take extended lunch or leave work early without permission…some complaints were about the dress code and the student's inability to communicate effectively, especially amongst other colleagues and when drafting emails. We also found that some students could not use a photocopying machine.*

The SSO at College A said that it was through this experience that the colleges saw a need to do induction training for the student before they place them within businesses. The induction programme is mainly on "soft skills", such as work etiquette, communication, interpersonal skills and preparation for interviews, among other things. The training is done at the colleges and in most instances and is funded by a SETA. The project manager from College A indicated that, since the college started with the basic pre-workplace training for students, she has been receiving positive feedback from some of the companies who take the college's students for workplace training.

> *There are companies that have written to me at the end of the training complementing the quality of the students who participated in their workplace-based training. There is also an increased number of students who write to me informing me that they have been employed on contract or permanently by the same company where they were doing their learnership.*

The pre-workplace training shows that colleges are working towards merging both theoretical training and practical training. This section discussed the role and manner in which lecturers are preparing students for the world of work through soft skills training and highlighted the importance of equipping graduates with such skills. Equipping TVET students with soft skills will not only assist the students during their workplace-based training but also has the potential to ensure that students are hired. This will help diversify the skills gained by TVET graduates in that they do not only possess technical skills.

4.3.4 The Employability of TVET students by local businesses

This section will discuss the employability of TVET graduates, highlighting the opinions, perception and experiences of the four business respondents who were interviewed. According to Squire, *"*there are over 500 000 positions vacant in the country, but surprisingly there are insufficient trained and qualified people to fill these vacancies*"* (Squire, 2018:1). The White Paper on PSET (DHET, 2013) outlined that the government expects TVET colleges to be the cornerstone of the country's skills development system. Five years after the White Paper on PSET has been published there is a still a stigma that haunts the TVET colleges about the quality of its graduates and the programmes offered at the colleges. As mentioned above, the

local businesses expressed that the government needs to improve the quality of the lecturers. The HRM from AAA Fair indicated that:

> *Some of the TVET college lecturers are former students who studied up to N6 level at the college but struggle to find employment upon completion. These graduates have no work experience or a teaching qualification but some of them end up being employed as lecturers based on their academic excellence.*

Inadequate skills and professional qualifications of lecturers is a bad reflection on the TVET colleges because they focus on teaching skills that are geared towards a specific career or occupation. If lecturers do not have technical skills, knowledge and workplace exposure, then the quality of the TVET graduates will in turn be affected.

The other factor that influences the employability of TVET college graduates is the delays in issuing the certificate to TVET students. It was reported in the *Business Day* in 2018 that some TVET students waited for up to ten years to receive their certificates (Kahn, 2018). Although the DHET has issued a statement that backlog in the issuing certificates has been cleared, there are still hundreds of students waiting for their certificates (Kahn, 2018). The SSO from College A indicated that the DHET has over the past two years tried to clear out the backlog of issuing TVET certificates; however, not all the students have received their certificates:

> *We have students who have been coming to our offices for three years inquiring about their certificates. Some students have been waiting for longer than three and honestly I do not know what to tell them when they come to the college. It is quite sad what the government is doing to our students.*

These delays in issuing certificates have a negative impact on the students and reputational damage on the colleges. Businesses usually do not hire students without completion certificates and this is a hindrance on the employability of TVET graduates.

Business respondents said that the delay in issuing completion certificate led them to be cautious with the financial resources they invest in the TVET students because there is no guarantee that they can hire the students immediately upon completion, because the results are not ready.

A challenge mentioned by the respondent from Construction Pty, that influences the employability of TVET graduates, is the relevance of the curriculum. This was discussed at length previously. She explained that;

> *TVET programmes are not responsive to the current labour market. Colleges need to invest in research in order to have updated data on the skills requirement of local businesses. Our needs are constantly changing, and I don't think the TVET colleges are keeping up with the changing needs of the industry.*

This illustrates that there is room for improvement for the colleges and the DHET in terms of curriculum development. This section looked at the factors that influence the employability of TVET graduates, based on the perception of the college and businesses. The findings illustrate the importance of revising the TVET curriculum and training of lecturers to implement a new curriculum.

4.4 Summary

The findings presented above highlight perceptions of the respondents from the two Colleges, local businesses and the findings illustrate that TVET colleges are not as responsive as they could be to the needs of local businesses and, as a result, there is a low employment rate of TVET graduates. A number of contributing factors were presented, which led to TVET colleges struggling to fulfil their mandate of being fully responsive and aligned to the local business needs. These include outdated curriculum used at the colleges, lack of workplace training opportunities for students, lack of business buy-in from local businesses, the poor relationship between businesses and colleges, short duration of students training, students being unprepared for the world of work and under-qualified college academic staff members.

The issue of an outdated curriculum seemed to be a major concern for the local businesses. The four businesses mentioned that a partnership is very important for the development of TVET curriculum between TVET colleges, business and the government. Furthermore, the respondent said that the curriculum must be updated more regularly. The issue of simulated work rooms having outdated equipment was also raised as a concern. The problem of students not getting workplace-training was mentioned as a factor that affects TVET students directly,

in that they do not get the full benefit of being a student at a technical college. This, in turn, affects the quality of the graduates produced by colleges.

The non-participation of lecturers in the students training was seen as a hindrance and a limitation in that lecturers are not exposed to the workspace. Workplace exposure for TVET lecturers has the potential to improve teaching and learning and the lecturers have an opportunity to build relationships with the industry which could be beneficial for their teaching.

5 CHAPTER FIVE: RECOMMENDATIONS AND CONCLUSIONS

5.1 Introduction

This chapter will present a summary of the findings and analysis presented above. This chapter presents recommendations based on the research topic, “Factors that influence the employability of technical vocational education and training graduates.” The recommendation are developed grounded in the literature review presented in Chapter 2 and the research and analysis in Chapter 4. This research report found that the democratic government has made significant progress in skills development.

5.2 Summary of the Empirical Research

The purpose of the research report was to determine the factors that affect and influence the employability of TVET graduates, assessing the following;

- Are TVET colleges responsive to the needs of local businesses?
- Do TVET colleges have sufficient information on the employment needs of local businesses, in terms of skills requirements?
- What support is provided to TVET students by colleges in order to enhance their employability?
- What is the the relationship between the two TVET colleges and its surrounding businesses?

The next section presents summaries of the empirical research and analysis discussed in chapter four.

5.2.1 Curriculum challenges

The White Paper on PSET (DHET, 2013) clearly states that TVET colleges are mandated with the task of fostering partnerships with local businesses and other stakeholders in order to increase the responsiveness and alignment of colleges to the labour market. However, the college-industry partnerships are not being established at the expected rate. This is impacting on the quality of the graduates produced by TVET colleges.

Respondents from both the local businesses and the TVET colleges shared a common view that the TVET curriculum needs to be updated, likewise the courses and programmes offered by the TVET colleges. This process will help determine the alignment and responsiveness of TVET colleges to the community it serves.

Lecturer development is an integral part of the success of TVET colleges. Lecturers, as the implementers of the curriculum, and they need to understand the pivotal role they play in the success of TVET colleges. The NC (V) programmes were introduced to TVET colleges when colleges were being restructured in 2007. The implementation of the NC (V) courses came at the time when colleges were grappling with the merger of technical colleges into FET colleges (Chapter 2; Papier, 2010; Powell, 2011). TVET lecturers were not prepared and adequately equipped with knowledge, skills and technical support to seamlessly deal with the new curriculum and this is evident in the TVET colleges today (Chapter 2; Carl, 2009; Papier, 2010).

The local businesses expressed dissatisfaction that TVET colleges have unqualified lecturers. What came out during the study was that a high number of TVET lecturers that either had a teaching qualification only or have industry experience with no teaching background are employed by the colleges. DHET needs to draft a policy that will force TVET colleges to encourage their current staff to study further in order to have the relevant qualification and also the DHET must enforce that colleges only employ qualified lecturers.

Central to the dissatisfaction of the businesses was the curriculum offered at the colleges. Local businesses respondents and the colleges agreed that the TVET college curriculum for both NATED and NC (V) courses is outdated and needs to be updated regularly so that it can be aligned to the needs of the businesses. This compromises the quality of the TVET graduates, which in turn affects the employability of TVET graduates. The snowball effect of this is that businesses continue to be cautious in establishing long term partnerships with TVET colleges, due to the outdated curriculum. The businesses respondents expressed concerns and dissatisfaction regarding the quality and nature of the skills possessed by college graduates.

5.3 Student placement and the industry experience obtained

This research found that colleges struggled significantly with the placement of students on workplace-based training programmes. Workplace-based training is an integral part of the technical and vocational education, as TVET programmes consist of both a technical and theoretical component. Workplace-training offers students an opportunity to receive practical experience, which prepares them with the relevant skills for employment.

The lack of relevant industry exposure for the students compromises the quality of the graduates produced by TVET colleges. Businesses do not respond positively to requests from colleges to take students for workplace-based training programmes and they cite a number of reasons, such as funding and a lack of space or mentors at their businesses.

A number of challenges experienced by both colleges and students during the workplace-training were presented, such as companies providing inadequate training to students, 'double dipping' of students, and students hopping between training programmes. The stipends offered by government institutions such as SETAs and the NSFAS needs to be aligned in order to ensure the uniformity of the stipend payment.

The research also found that some companies do not want to take students for workplace-based training programmes for either 12 or 18 WiL. This is a great concern for students because students who are studying NATED programmes are expected to do an 18-month apprenticeship before they can get a certificate. If colleges are going to accept the short-term training programmes from businesses, the colleges need to have a targeted approach for this training. An example could be a short term 'soft skills' training programme.

5.3.1 The readiness of students for the workplace

The local businesses raised some concerns about the lecturer's lack of industry exposure and professional qualification. There was a consensus among the respondents that there is a need for a dedicated lecturer's development training programme which will enhance the quality and teaching at the colleges. Business respondents expressed dissatisfaction about the TVET students' readiness when they arrived at the workplace. Students lacked basic work etiquette and the local businesses had to teach students how to communicate professionally, how to dress for work and basic workplace conduct. Although both TVET colleges indicated that they now

provide pre-work place training for their students before they start their learnership programmes, not all the students went through the training and perhaps colleges need to consider partnering with businesses for this type of training.

5.3.2 Employability of TVET students by local businesses

This study found that TVET graduates struggle with securing employment because of the skills they possess upon completion. Respondents from the local businesses alluded to the fact that the curriculum has to be improved to relevant to the business needs in order for them to employ students.

The delay in students receiving their completion certificates affects student opportunities for finding employment. There is no proof from the colleges that the students have successfully completed their studies. Business respondents said that the delay in issuing certificate led them to being cautious with the financial resources they invest in the TVET students. The next section will outline the recommendations that are made to improve practice at TVET colleges.

5.4 Recommendation

A number of recommendations made by participants have been outlined above. In light of the findings presented the researcher identified the following recommendations. It should be noted that recommendations are drawn from two TVET colleges in the Gauteng Province. Although they may be applicable to other collages, this cannot be assumed given the case study nature of this research.

The identified recommendations are as follows:

- *The revision of the curriculum:* the TVET curriculum were critiqued by both the colleges and business respondents. The curriculum is said to be outdated. The curriculum needs to be revised. The process of updating curriculum needs to be inclusive of businesses, colleges and the DHET. The TVET curriculum needs to be updated regularly.
- *Lecturer development programmes:* there was a consensus among the respondents from both the colleges and businesses that there is a need for a dedicated lecturer development training programme which will enhance the quality and teaching at

the colleges. Before a new curriculum is implemented, lecturers need to be trained so they can be equipped enough to implement the new curriculum. Therefore, continuous lecturer development is important. Also, the DHET needs to develop a policy that will encourage existing TVET lecturers to obtain the qualifications once they are launched by the public universities.

- *The development of sustainable partnerships with local businesses*: the study found that the colleges were struggling with securing workplace-based training opportunities for their students. Developing sustainable partnerships with local businesses will assist in increasing opportunities for workplace-based training for TVET students. This process will ensure local businesses buy-in, and the relevance of the programmes offered at the colleges which would enhance TVET graduates' employability.
- *Strengthen workplace awareness and transition to the world of work:* TVET colleges need to start preparing students for the world of work. Students must be made aware of the transition from higher learning institution to the workplace.
- C*onduct regular needs-analysis research for the communities they serve*: in order for TVET colleges to teach programmes that are aligned to the economic needs of the country, it is important that the TVET colleges conduct regular research to understand the needs of local businesses. On-going research needs to be done to evaluate the constantly changing workplace in order to increase employment opportunities for TVET graduates.
- *Standardise stipends across government entities*: the government needs to introduce a standardised funding model for learnerships. This model should be clear on how much students should receive when they are on an apprentice or learnership. This will ensure that the different SETAs and the NSFAS are all offering the same stipend to TVET college students and could potentially reduce the number of students hopping between training programmes.

5.5 Summary

The aim of this study was to determine the "factors that influence the employability of TVET graduates". The data gathered enabled the researcher to formulate conclusions on the research questions and develop recommendations which could improve practice at the TVET colleges in order to improve college' responsive and alignment to skills needs of its community. As its

main contribution, the study highlighted key factors hindering college success, such as the outdated curriculum taught at colleges, unqualified lecturers and the lack of college-industry partnership. The effectiveness of TVET colleges is crucial for the skilling of South African youth and for the economy at large; therefore, it is imperative that the government develops strategies to deal with the challenges faced by TVET colleges.

TVET colleges need to offer programmes based on the occupations of high demand in the country. TVET colleges need to plan a bit better for its enrolment by conducting research on the scarce skills in the country. The world is transitioning towards the 4th Industrial Revolution or the digital revolution and none of the two colleges offer courses in Information and Communication Technology (ICT). All TVET colleges should be offering programmes in ICT as we know that currently there is a skills shortage in this field (DHET: 2018).

Lastly, TVET colleges need to improve its planning and implementation in order to have an understanding of where the skill gaps lie. A good starting point would be for colleges to ask the question of whether they are preparing students for changing economic needs.

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APPENDIX A

APPENDIX B

APPENDIX C

APPENDIX D