MANAGING THE APPRENTICESHIP PROGRAMME IN SELECTED TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING COLLEGES IN SOUTH AFRICA

By

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DECLARATION

I, Isaac Bogart Bassie Shole, hereby declare that:

MANAGING THE APPRENTICESHIP PROGRAMME IN SELECTED TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING COLLEGES IN SOUTH AFRICA is my own work and has not been submitted previously for any degree at any university. All the sources I have used or quoted have been indicated and acknowledged by means of complete references.

_____ _____

SIGNATURE **DATE**

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DEDICATION

This thesis is dedicated to the following people:

My late grandparents Josiah Mokotedi Shole and Rosina Mmamosasane Shole. May their souls rest in peace.

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SYNOPSIS

This study aimed to explore the management of the apprenticeship programme in selected Technical and Vocational Education and Training (TVET) colleges in South Africa. A qualitative case study was used to examine the role of the stakeholders in managing the apprenticeship programme in TVET colleges in South Africa at the selected TVET colleges in North West and KwaZulu-Natal provinces. This study used purposive sampling to select three principals, three deputy principals academic services, three programme managers, three campus managers, and 18 lecturers. The empirical data was collected through unstructured individual interviews and semi-structured focus group interviews. Data analysis followed open coding processes.

The findings of this study suggest that the identified stakeholders experience challenges in managing the apprenticeship programme in TVET colleges. There are barriers that hamper efficient management of it. In addition, these challenges or barriers include, inter alia, a lack of monitoring of the apprentices at the workplace, inadequate resources, unavailable training material, shortage of modern technology equipment, inadequate training facilities, poor quality of the learners, insufficient workplace training, inadequate funding, lack of professional capacities of supervisors at the workplace, low-quality curriculum, evolution of apprenticeship legislation, and inadequate physical facilities. Innovative strategies for dealing with the aforementioned challenges are outlined. Strategies to enhance the quality of managing the apprenticeship programme in TVET colleges are also provided. In conclusion, the findings and recommendations in this study provided valuable contributions in managing the apprenticeship programme in TVET colleges.

Key Terms: apprentices; apprenticeship programme; innovative strategies; management; partnerships; workplace monitoring; workplace training.

LIST OF ACRONYMS

AACs	Australian Apprenticeship Centres
ABS	Australian Bureau of Statistics
ADCC	Artisan Development Coordinating Committee
AET	Adult Education and Training
AsgiSA	Accelerated Growth Initiative for South Africa
ATT	Accelerated Artisan Training
AVETMISS	Australian Vocational Education and Training Management Information Statistics Standard
BCEA	Basic Conditions of Employment Act
BMS	Business Management System
BOTA	Botswana Training Authority
BQA	Botswana Qualifications Authority
BTEP	Botswana Technical Education Programme
CATES	Colleges for Advanced Technical Education
CBMT	Competency-Based Modular Training
CETA	Construction Education and Training Authority
CIPl2	College Improvement Plan
COSATU	Congress of South African Trade Unions
COTT	Central Organisation for Trade Test
COVET	Council for Technical and Vocational and Training
DAIT	Directorate of Apprenticeship and Industrial Training
DBE	Department of Basic Education
DET	Department of Education and Training
DHET	Department of Higher Education and Training
DoL	Department of Labour
DTT & TE	Department of Teacher Training and Technical Education
DVET	Department of Vocational Education and Training
ESETA	Energy Sector Education and Training Authority
EWP	Education with Production
ETQA	Education Training Quality Assurance
FET	Further Education and Training
FETC	Further Education and Training College
GTCs	Group Training Companies
GTOs	Group Training Organisations
HSRC	Human Science Research Council

ICT	Information Communication and Technology
ILO	International Labour Office
INAP	International Network in Innovative Apprenticeship
INDLELA	Institute for the National Development of Learnership Employment Skills and Labour Assessment
ISCs	Industry Skills Councils
ITBS	Industrial Training Boards
JIPSA	Joint Initiative for Priority Skills Acquisition
LCSA	Lutheran Church in Southren Africa
MAPPSETA	Manufacturing, Advertising, Publishing, Printing, Packaging Sector Education and Training Authority
MLHA	Ministry of Labour and Home Affairs
MOA	Memorandum of Agreement
MOE	Ministry of Education
MoU	Memorandum of Understanding
MTA	Manpower Training Act
MTTC	Madirelo Training Testing Centre
MoTE	Ministry of Tertiary Education, Research Science and Technology
NAB	National Apprenticeship Board
NAC	National Apprenticeship Committee
NACs	New Apprenticeship Centres
NAD	National Artisan Development
NACTVET	National Coordinating Committee on Technical and Vocational Education and Training
NADOAC	National Artisan Development Quality Assurance Committee
NAMB	National Artisan Moderation Body
NAP	National Apprenticeship Programme
NATED	National Technical Education
NCC	National Craft Certificate
NCQF	National Credit and Qualifications Framework
NC(V)	National Certificate Vocational
NC(V)ER	National Centre for Vocational Education Research
NDP	National Development Plan
NEDLAC	National Economic Development and Labour Council
NEET	Not in Education, Employment, and Training
NQF	National Qualification Framework

NSA	National Skills Authority
NSDS	National Skills Development Strategy
NSFAS	National Students Financial Aid Scheme
NSF	National Skills Fund
NTBS	National Training Boards
NTC	National Training Commission
NTS	National Training Strategy
NVTI	National Vocational Training Institution
PADSC	Provincial Artisan Development Steering Committee
PSETA	Public Service Sector Education and Training Authority
PQM	Programme Qualification Mix
QCTO	Quality Council for Trades and Occupations
RPL	Recognition of Prior Learning
RSA	Republic of South Africa
RTO	Registered Training Organisation
SARS	South African Revenue Services
SAQA	South African Qualification Authority
SDA	Skills Development Act
SDLA	Skills Development Levies Act
SDL	Skills Development Levy
SLA	Service Level Agreement
SMEs	Small and Medium Enterprises
SETA	Sector Education and Training Authority
SMT	Senior Management Team
SOEs	State-Owned Enterprises
UK	United Kingdom
TAFE	Technical and Further Education
TVET COLLEGE	Technical and Vocational Education and Training College
TVET	Technical Vocational Education and Training
VET	Vocational Education and Training
WSPs	Work Skills Plans

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CHAPTER 1

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

The challenge of the skills shortage in South Africa is the result of the interplay of several complex socio-political and economic factors (Tshele & Agumba, 2014:103). Apprenticeship in South Africa dates back to the colonial period in which the state regulated the apprenticeship system through the Apprenticeship Act (No 26 of 1922). According to Vollenhoven (2016:2) this Act changed the traditional master-apprentice relationship that was previously regulated by the individual artisan or journeyman to state regulation and the introduction of various craft unions with shifts in production systems and the organisation of work.

Mateus, Allen-lle and Lwu (2014:64) report that the problem of the skills shortage can be attributed to apartheid laws in which skills development was profoundly racialised and gendered. This denied black South Africans access to skills development. Groener (2014:9) asserts that the training policies and the inequities of Bantu Education policies of the apartheid regime provided economic development and created wealth for the white minority while most of blacks were confined to menial labour. Maringe and Osman (2016:124) share the sentiments of Groener (2014:9) that blacks were educated to be loyal servants and provide cheap labour for the main sectors of the economy. Moreover, the training system was developed around a number of apprenticeship training courses that were mainly aimed at equipping young white men to work within the industry. Clearly, this indicates that the apartheid regime had a negative impact on the skills development of black Africans.

With the inception of democracy in 1994, new legislation and policies were introduced. Howitz (2013:2) confirms that legislation and policies were promulgated to address the skills shortage, and included, among others: the Skills Development Act (SDA) (No 97 of 1998), the National Development Levies Act (No 9 of 1999), the South African Qualifications Authority (SAQA) Act (No 58 of 1995) and the National Skills Development Strategy 1 (2005). These legislative measures were introduced to redress the legacy of apartheid labour market discrimination and distortions in skills development.

However, Rasool, Botha and Bischoff (2012:400) note that with the inception of the new political dispensation many skilled professionals from South Africa emigrated to other parts of the world as they feared the effects of affirmative action policies, crime, violence, and decline in service delivery. The emigration of these skilled professionals is also a contributing factor to the country's skills shortage. This implies that there is a need to establish multi-purpose institutions of learning that will develop skills through training.

Powell (2013:62) posits that the Further Education and Training (FET) Colleges were established in 2002 on the basis of the FET White Paper of 1998 which was enacted by the FET Act (No 97 of 1998). The FET sector comprises 50 merged former technical colleges, colleges of education, and training centres. In 2013, the FET colleges were renamed TVET colleges in terms of the FET Colleges Amendment Act (No 3 of 2012) (RSA, 2012). In his speech at the TVET Conference in November 2014, the former Minister of Higher Education and Training, Dr Blade Nzimande, indicated that the TVET is a well-known concept worldwide. Accordingly, the name change aligned South Africa with international practice. It also signalled the importance of integrating formal education with practical training and aligning this with the requirements of occupations (DHET, 2014:2).

The name 'TVET colleges' clearly reflects their nature and better defines their main role in the diversified post-school education and training system (DHET, 2013:12). Given that, in this study, FET colleges will be referred to as TVET colleges. Zwane, Surujlal and Dhurup (2014:997) assert that in South Africa FET colleges are expected to play an important role in the acquisition of human resource priority skills that are required by government and business.

However, Kruss, Wildschut, Van Rensburg, Visser, Haupt and Roodt (2010:16) assert that the public FET sector has been characterised by one constant feature over the past years, namely, the multiple policy shifts and changes that create significant challenges for institutions. Individual colleges grapple with defining their core purpose, balancing multiple roles and building relationships with industry, communities, higher education, and local government.

The legislative framework and policies that the new democratic government introduced do not seem to be adequate in dealing with the skills development problems in South Africa. This challenge can be attributed to ineffective and inefficient service delivery that the country is experiencing, and the quality and relevance of apprenticeship programmes offered by the TVET colleges.

Having presented the introduction to the study, the next section discusses the background to the research problem.

1.2 BACKGROUND TO THE STUDY

According to Ogbeifun, (2011:83) the apprenticeship is one of the oldest methods of training artisans. In earlier centuries, the practice included a five- to eight-year period of learning under a 'master craftsman' through an indenture or agreement. People still enter apprenticeship through indenturing, although these are now employment contracts, not the agreement to limited servitude that they were in the past. In the same vein, Vollenhoven (2016:1) notes that the word 'apprentice' is to be found in the Middle English and old French word 'aprentis' which in turn comes from 'apprendre' meaning to 'learn'. Therefore, apprenticeship has historically been associated with learning within a workplace context.

Apprenticeship was born hundreds of years ago when young people worked under a master craftsman to learn trades. This was a form of inexpensive work in exchange for learning and the young men often lived in the craftsmen's houses. In contrast, women were taught embroidery and silk-weaving (Department of Labour [DoL], n.d.: 2). According to SAQA (2013:2), the South African system of apprenticeship was formally introduced with the advent of gold and diamond mining.

The formalising and institutionalising of the apprenticeship system was introduced in 1910, with the establishment of the Union of South Africa. Further developments in the apprenticeship system and legislation over the years resulted in the Manpower Training Act (MTA) (No 56 of 1981), which replaced the Apprenticeship Act (No 37 of 1944) and Training of Artisans Act (No 38 of 1951).

According to Ogbeifun (2011:82), the decline in skills development both in the formal and informal sector prompted the new democratic South Africa to promulgate the SDA. The aim was to develop and improve the skills of the South African workforce. Pieters

(2014:128) states that the Skills Development Amendment Act (No 37 of 2008) introduced the concept of learnership. This system was seen as an intervention to address the inequalities of the old apprenticeship system and create a dual system of learning. Certain sections of the MTA were repealed but sections relating to apprentice training and development were retained. The amended SDA states that learnerships should incorporate apprenticeship but do not say that apprenticeship would no longer be allowed. As a result, apprentices continue to train via two routes of the MTA. These routes are:

- Section 13, which refers to (young) persons who have been formally indentured as apprentices (contracted as apprentices), who meet the age criteria, who serve the full-time period and who pass the trade test as prescribed by the Act.
- Section 28 apprentice of Chapter 2 of the MTA refers to (adults) persons not indentured under section 13 but who satisfy the Registrar of the Training that they have gained sufficient work experience over an adequate period of time and can therefore undergo the trade test, after which (if they pass) they become qualified artisans.

The amended SDA compounded the confusion surrounding the status and management of an apprenticeship programme in South Africa. Duncan (2013:16) shares the same sentiments that this Act envisaged the apprenticeship system becoming entirely redundant as the existing apprenticeship system was progressively replaced by learnerships. This move culminated in the apprenticeship system being underutilised. For instance, Eskom neglected construction of more facilities for electricity production, and mining industries stopped taking on apprentices. Consequently, the level of artisan training dropped from 300 000 registered artisan apprentices in 1975 to an estimated 3 000 in 2006.

Having provided the background to the problem of the research, it is imperative to present the statement of the problem.

1.3 STATEMENT OF THE PROBLEM

The current apprenticeship programme in TVET colleges in South Africa is characterised by role confusion among the stakeholders, insufficient workplace training, outdated apprenticeship training equipment, and inadequate lecturers'

qualifications, and inadequate monitoring. Allais (2012:632), Matea (2013:93) and Tshilongamulenzhe, Coetzee and Masenge (2013:4) attest that there is lack of structured monitoring for practical exposure and role confusion among the stakeholders involved in the management of the apprenticeship programme. This has resulted in uncoordinated, poor and sporadic challenges of the management of the apprenticeship programme in selected TVET colleges in South Africa. It was against the potential threats these factors posed in the management of the apprenticeship programme that this study was conceived.

The SDA states that a person who has completed National Certification Vocational (NC(V) in an engineering-related programme or any other learning programme resulting in an occupational or vocational qualification must complete a period of 'prescribed work experience' before they are entitled to sit a trade test. However, Lanning (2016:28) argues that many workplaces are not able to deliver workplace training in the way envisioned by the government. The differences in company size and employer approaches impact on workplace engagement in apprenticeships. Wildschut and Ngazimbi (2012:5) assert that there are constraints and problematic issues in the management of the apprenticeship programme. These are the limited access to structured workplace learning, lack of relevant FET college curricula in many instances, insufficient workplace training, incapacity of the TVET colleges, and lack of properly qualified college staff.

Duncan (2013:17) highlights that Sector Education Training Authorities (SETAs) have their own approved training service providers and trade test centres. They manage apprenticeships differently and different standards undermine confidence in the system as a whole and lead to the emergence of unequal rankings of supposedly equal qualifications. For instance, after 2001, about 23 different state agencies managed apprenticeships through 14 different programmes without any mutual agreement on the required standards of competence.

According to Tshilongamulenzhe, Coetzee and Masenge (2013:4), there is a lack of structured and sufficiently monitored practical work exposure as well as exposure to the trade, particularly in the case of apprenticeship in the workplace. The study conducted by Mummenthey, Wildschut and Kruss (2012: 40) on assessing the impact of learnerships and apprenticeship in South Africa reveals that the quality checks were

found to be superficial, not thoroughly checking what is actually happening during training and therefore not aligned to policies and procedures. The primary paper-based checks were found to be insufficient. Marock, Harrison,Soobrayan and Gunthrope (2008:i) reveal that the 2008 review of SETAs showed that the skills development system suffered from weak reporting requirements, underdeveloped capacity, lack of effective management, and inadequate monitoring and evaluation that limit the ability of the SETAs to serve as primary vehicles for skills development.

Allais (2012:632) argues that the management of the apprenticeship programme in the TVET colleges involves multiple stakeholders who are expected to play a pivotal role in the success of the programme. These stakeholders are both internal and external. The literature review reveals that there is role confusion among the stakeholders in the management of the apprenticeship programme.

Several studies have been conducted on factors related to the apprenticeship programme in education institutions worldwide. One such study was conducted by Thoma (2016). The study analysed two distinct systems of craft skills training to determine deficits and solutions, which could contribute to a relevant and sustainable apprenticeship model. Woldetsadik (2013) conducted a study on the implementation of the apprenticeship training programme in Addis Ababa TVET Colleges and Enterprises. The study also examined the organisational strengths of the TVET colleges in relation to the provision of apprenticeship training. Another study was conducted in Kentucky in USA by Arthur-Mensah (2015). The purpose of the study was to examine the experience of students, employers and educators engaged in apprenticeships and revealed how such programmes can enhance college and career readiness among students and supply the skills required by employers.

However, research in the management of the apprenticeship has never been conducted in TVET colleges in the North West and KwaZulu-Natal provinces. Against this backdrop, this study sought to investigate and answer the following research question:

How do different stakeholders discharge their role of managing the apprenticeship programme in selected TVET colleges in South Africa?

In order to help answer the main research question, the following sub-questions were investigated:

- What constitutes the role of different stakeholders in the management of the apprenticeship programme?
- What challenges, if any, do stakeholders experience in managing the apprenticeship programme?
- Which strategies can stakeholders implement to address the challenges and to enhance the quality of the apprenticeship programme?
- What recommendations can be made in the form of guidelines to enhance the management of the apprenticeship programme in TVET colleges?

Having presented the statement of the problem and the research questions, it is necessary to present the aim and objectives of the study.

1.4 AIM OF THE STUDY

To address this research problem, this study was guided by the following overarching research aim: *To explore the management of the apprenticeship programme in selected TVET colleges in South Africa*. In order to achieve the stated aim of this research, the study sought to attain the following specific objectives:

1.5 SPECIFIC OBJECTIVES OF THE STUDY

Based on the main aim of this study, the specific objectives of this study are the following:

(a) To determine the role of stakeholders in managing the apprenticeship programme in selected TVET Colleges in South Africa.
(b) To explore the challenges, if any, that stakeholders experience in managing the apprenticeship programme.
(c) To determine the possible innovative strategies to deal with these challenges.
(d) To explore strategies to enhance the quality of managing the apprenticeship programme.
(e) To develop guidelines that may be used to enhance the effective management of the apprenticeship programme in TVET colleges in South Africa.

The next section explains the rationale for this study.

1.6 THE RATIONALE FOR THE STUDY

This section explains the reasons the study was conducted and the value of the research findings. For this reason, this study is expected to make policymakers and managers in the field of apprenticeship training take appropriate measures and maintain the quality of the management of the apprenticeship programme in TVET colleges. The researcher observes that the apprenticeship programme in selected TVET colleges is beset by problems such as failure by the apprentices to choose appropriate occupations, late coming, absenteeism, inadequate learner allowances or stipends and late payment thereof, difficulty adjusting to workplace requirements, and inadequate allocation of tasks.

Because the study investigates the apprenticeship programme in terms of the management process, the findings and recommendations of this study may help DHET policymakers, curriculum developers, managers at TVET colleges and lecturers. This study may serve as a baseline for further research studies that focus on the management of the apprenticeship programme. The researcher believes that the findings of this study may help the DHET to maintain the quality of the apprenticeship programme. The findings may also assist the TVET colleges with improving the management of the apprenticeship process. The current study sought to fill or at least reduce the gaps revealed in the literature review with regard to the management of the apprenticeship programme in TVET colleges. It is against this background that the researcher conceptualised this study in an attempt to identify mechanisms that could improve the quality of the apprenticeship programme.

Having outlined the rationale of the study, the next section provides the knowledge gap identification that the study intended to fill.

1.7 KNOWLEDGE GAP IDENTIFICATION

This study sought to fill the following knowledge gaps:

- Coordination or management of apprenticeship fragmentation;
- Lack of centralised database;
- Funding of apprenticeship programme;

- Curriculum differences and disjuncture and executing of obsolete curriculum, which is out of currency. This would be coupled with teaching and learning issues reflecting pedagogic disparities across and within the provinces which have implications for professional development and leadership practices;
- Multiple inconsistencies in policy changes; and
- Apprenticeship implicit benefits which has implications for the economy.

The next section focuses on the research methodology that was adopted to obtain answers to the research objectives of this study.

1.8 RESEARCH METHODOLOGY AND DESIGN

The ensuing paragraphs briefly describe the research approach, sampling strategies, data collection methods, data analysis, trustworthiness, ethical considerations, and delimitations of the study.

1.8.1 Research Approach

This study adopted the qualitative research approach. Schreiber and Asner-Self (2011:10) and Astalin (2013:118) maintain that qualitative researchers study people in their natural settings to identify how their experiences and behaviour are shaped by the context of their lives such as the social, economic, cultural or physical context in which they live. This choice emanated from manifold considerations including the following:

- The researcher used a qualitative research approach to explore the management of the apprenticeship programme in selected TVET colleges in South Africa. The study focused on exploring the participants' thoughts and feelings on how the apprenticeship programme was managed.
- The researcher in this study was a primary instrument for data collection and analysis. Yin (2014:11) notes that this feature enables the researcher to interact with participants in a face-to-face situation in their natural environments and captured their understanding and experiences in the management of the apprenticeship.

A case study research design was used to determine the role of the stakeholders in the management of the apprenticeship programme in selected TVET colleges. A case

study was selected in this study. According to Baškarada (2014:1) it provides an opportunity for the researcher to gain a holistic view of the research problem and facilitates describing, understanding and explaining a research problem or situation. Multiple case studies were also used. Wahyuni (2012:72) states that the use of multiple cases in the study allow the researcher to examine differences within and between the cases of three colleges. The aim was to analyse the findings within each setting and across the settings and to draw comparisons between the participants studied. Furthermore, Unluer (2012:4) points out that, in case studies, the research data can be collected by using different data collection techniques such as documents, archival data, interviews, and direct observation. Specifically, in this case study, the researcher collected data through interviews.

Fairweather and Rinne (2012:475) indicate that the case study has several limitations. Firstly, it provides a limited basis for generalisation. Secondly, the case study determines which data from the case will be most representative, for instance, deciding whom to interview, when to observe, and what documents to collect can all influence the findings of the study. However, the main purpose of this study was not to generalise the empirical findings across the population of stakeholders managing the apprenticeship programme but to obtain an in-depth insight into the phenomenon under study. The present researcher believes that the findings of this study can be useful for further research into the issues related to the management of the apprenticeship programme. Wahyuni (2012:77) concurs that with some careful adjustments in the setting, such as research findings that are drawn from rich descriptions, there is a possibility of transferring the study to other settings or situations.

A detailed discussion of the research methodology and design used in this study follows in Chapter 3 of this study.

The qualitative research methodology has been briefly discussed. Attention now focuses on what made up the sample of this research, how, where, and why they were selected.

1.8.1.1 Sampling and sample selection

Purposive sampling was employed in this study. The rationale for using purposive sampling was to locate information-rich informants with specific experience. Englander (2012:19) maintains that such experience could be used to meet the purpose of the research study and answer the research questions. Similarly, Marshall (1996, as cited in Letseka, 2012:96) also contends that purposive sampling is ideal for qualitative research because researchers who undertake this kind of research recognise that "some informants are richer than others and that these people are likely to provide insight and understanding". In this study, the point was to select information-rich participants who were assumed to be knowledgeable and have information about the phenomenon being investigated. It is noteworthy that the focus of this study was not to make an empirical generalisation but to select cases that could provide a thick description of the phenomenon under study,that is managing the apprenticeship programme in TVET colleges in South Africa.

The next section discusses the selection of the sites, participants, and the basis for their selection.

1.8.1.2 Site selection

This study was conducted in three TVET colleges with campuses that offer apprenticeship programmes in South Africa. The sites and participants selected for the study are described in detail below:

1.8.1.3 Participant selection

Shortfall and Hyter (2014:473) assert that participant selection must be congruent with the conceptual framework. Participants should be likely to generate rich, dense and focused information on the research question. This allows the researcher to provide a convincing account of the phenomenon.

The following participants were selected:

- Three principals, one per college.
- Three deputy principals: academic service, one per college.
- Three programme managers of apprenticeships, one per college.

- Three campus managers or project managers, one per college from campuses offering the apprenticeship training.
- Eighteen lecturers, six lecturers per college.

The participants were chosen because of their professional roles, expertise, experience, and knowledge they possessed that made them to be information-rich participants of this study. They were directly involved in the management of the apprenticeship programme in TVET colleges. The table below summarises the samples selected.

Table 1.1: Summary of samples

Colleges	Principals	Deputy Principals Academic	Programme Managers	Campus Managers/ Project Managers	Lecturers	Total
A. Vuselela	1	1	1	1	6	10
B. Majuba	1	1	1	1	6	10
C. Umfolozi	1	1	1	1	6	10
TOTAL	**3**	**3**	**3**	**3**	**18**	**30**

Note: Information on the colleges was extracted from their websites.

- **Vuselela TVET College**

Vuselela TVET College is one of the three TVET colleges situated in the North West Province that was established in 2002 following a merger process. Three former technical colleges, a training centre and college of education were merged in accordance with the principles that underpinned transformation of the FET sector. These colleges were Jouberton, Klerksdorp, Potchefstroom, Stilfontein Training Centre (Matlosana Centre for Learnerships and Apprenticeships), and Taung College of Education (Taung Campus).

The college has four campuses in Dr Kenneth Kaunda and one campus in Dr Ruth Segomotsi Mompati District Municipalities. The corporate centre is in the city centre of Klerksdorp. The campuses are situated in agricultural and mining areas.

Currently, the college consists of the following five campuses:

- Jouberton Campus;
- Potchefstroom Campus
- Taung Campus.
- Matlosana Campus for artisanships and learnerships;
- Klerksdorp Campus

The college offers National Technical Education (NATED) and National Certificate Vocational (NC(V) courses in engineering and business studies under the auspices of the DHET. The college also offers short courses, skills programmes, learnerships and apprenticeships). In particular, Vuselela TVET College was selected for this study because it is the only college in the North West Province that offers apprenticeship training and has an accredited trade test centre. The college's trade test centre is situated in the agricultural, industries and mining areas and, therefore, the college has the advantage of securing workplace training for the apprentices.

- **Majuba TVET College**

Majuba TVET College is one of the public TVET colleges in South Africa. This college is situated in the KwaZulu-Natal Province of South Africa. It was established as a result of the merger process in 2002. The college consists of five campuses:

- Newcastle Technology Campus;
- Majuba Technology Campus;
- Dundee Campus;
- Centre for People Development, IT and Business Campus in Madadeni; and
- The Central Office in Newcastle.

The college offers NATED courses in business and engineering studies and NC(V) in engineering and business studies through the DHET. The college also offers accredited short courses, skills programmes, learnerships, and apprenticeships through relevant SETAs.

Majuba TVET college was selected because, in addition to offering apprenticeship training, it is situated in the vicinity of major industries in the sectors of iron and steel manufacturing, mining (mainly coal), textile and clothing production, cement and

chemical manufacturing, engineering workshops, and primary agriculture. Newcastle (where the central office is located) and its environments have been identified as a major growth area in the KwaZulu-Natal Provincial Growth Development Strategy. Therefore, because of its close proximity to industries, the college is strategically situated to conduct the apprenticeship training.

- **Umfolozi TVET College**

Umfolozi is another public TVET college in South Africa selected for this study. The college is located in KwaZulu-Natal and has the following five campuses:

- Eshowe Campus;
- Eshikhawini Campus;
- Mandini Campus;
- Richtek Campus; and
- Chief Albert Luthuli Campus.

The college offers NATED courses in business and engineering studies and NC(V) in engineering and business studies under the auspices of the DHET. The college also offers accredited short courses, skills programmes, learnerships, and apprenticeships through relevant SETAs. Umfolozi TVET College was selected because of its capacity to conduct apprenticeship training and the strength of its partnerships with industry around Richards Bay.

The sites reflect the historical differentiation of colleges in South Africa, that is, former state-aided (formerly white) and state colleges/manpower centres/colleges of education (formerly black). It also reflects that vocational education and training during apartheid was characterised by unequal quality of the programmes, the infrastructure allocation based on race, unequal funding of historically white technical colleges and historically black technical colleges, as well as the division between theory and practice. Consequently, black technical colleges lacked meaningful linkages with industry and were largely disconnected from the local economy (Department of Education, 1998). In the main, these colleges were selected because they offer programmes that encapsulate an apprenticeship programme that supplies apprentices to nearby industries.

Having outlined the sampling and sample selection, the next section describes the data collection methods used in this study.

1.9 DATA COLLECTION METHODS

According to Kitto, Chesters and Grbich (2014:243), qualitative research methods include the techniques of interviewing, observation, and document analysis. In particular, in this study, interviews were selected as research techniques to gather qualitative data that would achieve the research objectives in (cf.1.5). The reason for choosing these data collection techniques was that the strength of one data collection tool should complement the other. The interviews as data collection instruments are briefly discussed in the following sub-sections.

1.9.1 Interviews

An interview was used in this study as the main data collection technique to obtain qualitative data from the participants. According to Englander (2012:13), the interview is the most prominent data collection procedure closely associated with qualitative research. It is the best way of accessing people's perceptions, meanings, and definitions of situations, beliefs, opinions, feelings, and construction of reality. Palaiologou, Needham and Male (2016:160) concur that the interview is often viewed as the most appropriate method to adopt.

The following are some of the advantages of the interviews:

- Gandeebo (2015:118) states that the interviews supply large volumes of in-depth data rather quickly and have a higher response rate than other data collection methods like questionnaires and observations.
- In addition, Atikins and Wallace (2012:860) point out that the interviews are a very flexible research tool that can be used to gather a range of different types of information, including factual data, views and opinions, personal narratives and histories that make them useful as a means of answering a wide range of research questions.
- Furthermore, Bertram and Christian (2014:83) observe that the presence of the researcher during the interview with the respondents can assist to clarify the question.

However, there are disadvantages of interviewing. The following are some of potential disadvantages of interviewing:

- Anyan (2013:2) states that interviewing is not simply a data-collection exercise, but also a social interpersonal encounter. Therefore, power relations can influence the process of interviewing.
- According to Doody and Noonan (2013:29) the cost associated with interviews can limit the size and geographical coverage of the study.

In the sections that follow, unstructured individual interviews and semi-structured focus group interviews are discussed.

1.9.1.1 Unstructured individual interviews

According to Ravitch and Carl (2016:154), unstructured individual interviews, also called open-ended interviews, adopt a process that allows interviews to be completely inductive and tailored to each participant's experiences. These interviews do not follow a pre-specified guide. The researcher may identify areas of research interest or a topic that he/she wants to address, but does not necessarily use an instrument with specific questions. This implies that the participants have an opportunity to share their story, pass on their knowledge, and provide their own perspective on a range of topics, and this type of interview is capable of producing rich and valuable data.

In this study, unstructured individual interviews were considered relevant because the researcher sought to have face-to-face interaction with participants. These participants were chosen because all of them are directly involved in the management of the apprenticeship programme. Unstructured individual interviews were held on a one-on-one basis with the principal, deputy principal: academic, programme managers and the campus managers. In total, twelve unstructured individual interviews were conduct in this study, that is, four in each college.

1.9.1.2 Semi-structured focus group interviews

The most common type of interviews used in qualitative research is semi-structured interviews. It involves the use of predetermined questions, where the researcher is free to seek clarification. As a result, a guide was developed with open-ended questions (Doody & Noonan, 2013:2). This allowed the researcher to vary the order

and wording of the questions depending on the direction of the interview and also to ask additional questions. Accordingly, the semi-structured focus group interviews were held to complement the unstructured interviews. Six lecturers were selected from Vuselela, six from Majuba, and six from Umfolozi. In fact, this study administered three separate focus group interviews exclusively for the lecturers facilitating apprenticeship training.

In this study, semi-structured focus group interviews with the lecturers were conducted in the boardrooms of the selected colleges. The researcher conducted focus group interviews in a setting that was familiar to the participants. This allowed the participants to express their views more easily. Ary, Jacobs, Sorensen and Walker (2014:469) suggest that a focus group should compose of 6 to 12 participants who have been purposively selected because they can provide the kind of information of interest to the researcher. In this study, the size of each focus group in a single interview session was limited to six participants from three participating colleges.

Having explained how data was collected, it is now relevant to focus on data analysis procedures used in this study.

1.10 DATA ANALYSIS

Woldetsadik (2013:112) posits that data analysis in qualitative research consists of preparing and organising the data for analysis, then reducing the data into themes through a process of coding and condensing the codes, and finally representing the data in figures, tables, or a discussion. Similarly, Ravitch and Carl (2016:216) point out that qualitative data analysis encompasses the process that the researchers employ to ‘make sense of the data’. This includes identifying and constructing analytical themes and ultimately turning these themes into findings that would help to answer the research question.

In this study, the researcher began with data analysis immediately after finishing the first interview and continued to analyse the data as long as he was working on the research, stopping briefly to write reports. This aspect is elaborated in Chapter 4 in Table 4.1.

The next section explains the trustworthiness of this study.

1.10.1 Trustworthiness

According to Gunawan (2015:4) trustworthiness refers to the way in which the researcher is able to persuade the audience that the findings in the study are worth paying attention to and that the research is of high quality. There are four main issues that require attention with regard to trustworthiness of research. These issues are reflexivity, member checking, and low-inference descriptor. These aspects are discussed in detail in Chapter 3.

The next section provides a brief discussion of ethical issues that were observed during data collection and analysis.

1.10.2 Ethical Considerations

Artins and Wallace (2012:30) maintain that an ethical approach should pervade the whole study. It is not merely recognition of the need for anonymity or consent, but should inform every aspect of the study from the initial planning stages, through the data collection and analysis to the final reporting. This implies that the researcher should ask himself or herself at every stage of the research whether his or her action is ethical. Is it honest and respectful of others and of key values? In this study, the following ethical principles were considered during the study:

1.10.2.1 Approval for conducting the research

Before conducting the study, the researcher applied for Ethics Clearance from the University of South Africa (Appendix A). In addition, the researcher obtained permission to conduct the research from the Director General of the DHET since the study was undertaken in three TVET colleges in the North West and KwaZulu-Natal provinces (Appendix B). Permission was also sought from the principals of the selected colleges (Appendix D).

1.10.2.2 Informed consent and voluntary participation

According to Pazvakavambwa (2016:18) the participants should be given accurate and complete information regarding the study in order to obtain voluntary consent from them. The consent form included a description and information pertaining to the study. The researcher explained to the participants that participation was voluntary and they had the right to withdraw at any time without any negative consequences. They were

also assured that the information was going to be used for research purposes only and the study was conducted in accordance with the guidelines set by the UNISA Research Ethics Committee. After a thorough explanation, the participants' signatures along with that of the researcher were obtained as evidence of informed consent (Appendix E).

1.10.2.3 Privacy, anonymity and confidentiality

Ary et al.,(2014:474) advice that the researcher should adhered to the principle of anonymity. The anonymity of the participants was maintained throughout the study by assigning letters in the place of participants' real names. All information presented by the participants and data derived from examined documents were subjected to strictest confidentiality. Permission to audio-record interviews was sought from the participants. More importantly, the researcher secured permission from the participants to cite quotations from the verbatim transcripts anonymously.

The next section focuses on the context of the study.

1.11 CONTEXT OF THE STUDY

There are 50 registered and accredited public TVET colleges in South Africa. These colleges operate on more than 264 campuses spread across the rural and urban areas within the country. This study was restricted to the management of the apprenticeship programme in engineering-related trades such as electrical, mechanical, civil, and building construction. This study was delimited to the purposively selected 30 participants drawn from the three TVET Colleges of the North West and KwaZulu-Natal provinces in South Africa. Only three principals, three deputy principals: academic service, three programme managers, three campus managers or project managers, and 18 lecturers were selected to participate in the study. Phorabatho (2013:16) argues that, although qualitative studies may not be generalised in a statistical sense, their findings may be transferable. Therefore, the researcher believes that the findings of this study may be broadly applicable to other similar settings as they may highlight issues and understandings involved in the management of the apprenticeship programme that may be applicable in other parts of South Africa or even globally.

The subsequent section clarifies the concepts used in this study.

1.12 CLARIFICATION OF CONCEPTS

To ensure a common understanding of the terminology employed in this study, it is important to define key concepts as they were presented in this research.

1.12.1 Managing

According to Pelser, Kriegler and Prinsloo (2014:303) and Phorabatho (2013:17) the concept 'managing' is derived from the broader concept of management. In the context of this study, managing relates to the various tasks of planning, organising, leading, controlling, implementation, monitoring, reporting, and coordinating resources. Stakeholders in the management of the apprenticeship programme apply these tasks.

1.12.2 Apprenticeship

Veronica and Camelia (2015:171) define apprenticeship as a structured programme of vocational preparation sponsored by an employer, juxtaposing part-time education with work experience, leading to recognised vocational qualification at craft or higher level and taking at least two years to complete. Sharing the same view, Odoro and Naong (2014:2) define apprenticeship as a process of learning new valuable skills from a seasoned professional and have been viewed as a way of bringing theoretical and practical knowledge together. In the context of this study, apprenticeship refers to a form of training that combines college-based training with workplace learning in which an apprentice learns the theoretical aspects and practical components of the designated trade under the supervision of a lecturer and/or a qualified artisan. An apprenticeship that is limited to technical trades is based on the Competency-Based Modular Training (CBMT) system, meaning that an apprentice must pass the relevant modular and phase tests, as well as a final trade test to be recognised as an artisan. The duration of the training is three to five years depending on the type of the training.

1.12.3 Apprenticeship Programme

Lerman (2014:2) explains apprenticeship programme as a programme of courses, work-based learning, and productive employment in which apprentices achieve occupational mastery and industry recognised credentials. In this study, an apprenticeship programme is a structured training programme that combines theory and practical aspects.

1.12.4 TVET Colleges

TVET colleges are public colleges established in terms of the FET Colleges Amendment Act (No 3 of 2012) (RSA, 2012). In the context of this study, the TVET college refers to public colleges offering NC (V) and Report 191/ NATED, accredited learnerships, apprenticeships and short skills programmes.

1.12.5 Apprentice

Woldetsadik (2013:11) defines an apprentice as a young person being trained to do a skilled job, who has signed a contract agreeing to work a fixed number of years for the employer who is training him/her. In this research, an apprentice refers to a person who enrolled in a public TVET college for an apprenticeship training programme and workplace learning and enters into a training agreement with the training provider (TVET college) and the funder or employer.

1.12.6 Training

Training is usually a planned process that takes two main forms, namely, on-the-job training and off-the-job training. The on-job training refers to training where employees receive instruction within the workplace while the off-job training refers to training where employees are instructed away from the workplace or institutionalised training (Phorabatho, 2013:21). In this study, training refers to the transfer of knowledge and skills to a trainee in order to prepare him or her to obtain a qualification and/or to improve his or her level of performance.

1.12.7 KwaZulu-Natal Province

KwaZulu-Natal Province, also referred to as KZN, is a province of South Africa that was established in 1994. It is located in the southeast of the country with Pietermaritzburg as its capital. The Province enjoys a long shoreline beside the Indian Ocean and shares borders with Mozambique, Swaziland and Lesotho.

There are eight TVET colleges in KwaZulu-Natal Province. These colleges are listed in Table 1.2

Table 1.2: List of TVET colleges in KwaZulu-Natal

No	College name	Campuses	Total
1	Umgungundlovu TVET college	Plessislaer Northdale Msunduzi Midlands Edendale	5
2	Umfolozi TVET college	Chief Albert Luthuli Eshowe Esikhawini Mandini Richards Bay	5
3	Thekwini TVET college	Asherville Cato Manor Centex Melborne Springfield Umbilo	6
4	Mnambithi TVET college	Estcourt Ezakheni Ezakheni Skills Centre Ladysmith Mnambithi	5
5	Majuba TVET college	Newcastle Technology Majuba Technology Dundee Centre for People Development	5
6	Esayidi TVET college	Port Shepstone Gamalakhe Kokstad Enyenyezi UMzimkulu Clydesdale	6
7	Elangeni TVET college	Inanda Kwa- Dabela Kwa-Mashu Mpumalanga Ndwedwe Ntuzuma	8

No	College name	Campuses	Total
		Pinetown Qadi	
8	Coastal KZN TVET college	Durban Umlazi V Umlazi BB Ubuhle Bogu Umbumbula Swinton AA Salaam Appelsbosch	8
Total	8		48

Although these public TVET colleges are situated in KZN, they are under the administration of the DHET. The DHET Regional Office provides specialised professional support to these colleges in the province. All the TVET colleges in Kwazulu-Natal Province report to DHET Regional Office in Pietermaritzburg.

Alexander (2017:1) explains that KwaZulu-Natal Province is divided into 11 district municipalities, eThekwini being the metropolitan municipality and ten other district municipalities. The population is mainly African. IsiZulu is the predominant language spoken in KZN, followed by English, isiXhosa and Afrikaans. Durban is a rapidly growing urban area and is, by most measures, the busiest port in Africa. Sugar refining is Durban's main industry. Other industries include textiles, clothing, and chemical manufacturing. Newcastle is the province's industrial powerhouse, accommodating Mittal Steel.

1.12.8 North West Province

North West Province is one of the nine provinces of South Africa. Its capital is Mahikeng. The province has four district municipalities, namely, Bojanala, Ngaka Modiri Molema, Dr Kenneth Kaunda, and Dr Ruth Segomotsi Mompati. There are three public TVET colleges in the North West Province (Table 1.3). Although these colleges are in the North West Province, they are under the jurisdiction of the DHET. The North West and Mpumalanga TVET colleges have been clustered into a region and they report to DHET Regional Office in Standerton.

Table 1.3: List of TVET colleges in the North West Province

No	College Name	Campuses/Centres	Total
1	Orbit TVET college	Mankwe Rustenburg Brits	3
2	Taletso TVET college	Lehurutshe Mahikeng Lichtenburg	3
3	Vuselela TVET college	Jouberton Campus Klerksdorp Campus Potchefstroom Campus Taung Campus Matlosana campus for artisanships and learnerships	5
Total	**3**		**11**

The major cities are Klerksdorp, Potchefstroom, and Rustenburg. The mainstay of the economy of the North West Province is mining, which generates more than half of the province's gross domestic product (GDP) and provides jobs for a quarter of its citizens. The northern and western parts of the province have many sheep farms, cattle and game ranches. The eastern and southern parts are crop-growing regions that produce maize, sunflower, tobacco, cotton, and citrus fruits. The province's population is mainly black African, with Setswana being the prominent spoken language.

1.13 OUTLINE OF THE THESIS

This thesis is organised as follows:

Chapter 1 outlines the introduction and background to this study, research aim and objectives, statement of the problem, and the rationale for the study. The research methodology, context of the study, ethical considerations, and clarification of key concepts are also presented in this chapter.

Chapter 2 provides an in-depth review of related literature on the evolution of apprenticeship in South Africa, the apprenticeship programme in developed countries (Germany and Australia) and developing countries (Botswana and Ghana). In addition, this chapter discusses managing the apprenticeship programme in TVET colleges in South Africa. Costs and benefits of the apprenticeship programme are also

highlighted, and issues and challenges in managing the apprenticeship and the suggested remedies are presented.

Chapter 3 provides the research methodology and the design chosen for the empirical investigation in this study. The chapter deals with the sampling and sample selection used, data collection procedure, description of data collection instruments, data analysis process, credibility and trustworthiness, ethical considerations, and the summary.

Chapter 4 presents an exposition of data analysis, the analysis of data collected and core findings of the empirical investigation.

Chapter 5 provides a critical analytical discussion of the salient and pertinent results found in Chapter 4. Recommendations for the study are given on how to enhance the management of the apprenticeship programme in TVET colleges. This chapter also presents the areas for further research.

1.14 SYNTHESIS

The Skills Development Act (No 97 of 1998) which came into operation in September 1999 is the umbrella Act that regulates skills development in South Africa. The Act provides for a new approach to training and development that benefits both the employees and employers. The objectives of the Act among others is to develop the skills of the South African workforce, to encourage employers to utilise the workplace for effective skills acquisition, and to provide opportunities for new entrants to the labour market to gain workplace experience.` This implies that the Skills Development Act is critical in terms of transforming training and development in South Africa.

The skills development prior to 1994 under the Manpower Training Act (No 56 of 1981) lacked a coherent and systematic approach to skills development. This means that there was no overall strategy for the upgrading of skills of South African human resources because the whole training was not linked to the employer objectives, the sector and/or the economy. Access to training was limited as well on the basis of race and gender and only focused on employed people and very little attention was given to people who were not in education employment. The training also lacked formal structures and institutions to monitor quality and to measure competence. This implies that the quality of training was not systematically monitored to eliminate ‘fly by night’

training providers. The training providers were often both ‘player and referee’ in the sense that they provided training and evaluated its quality. In addition, training under MTA lacked investment in education and training in the workplace.

The new democratic government prioritised the apprenticeship programme as one of the skills development interventions that aims at addressing the skills shortage in South Africa, and deals with new economic reality and the national development challenges that result from unemployment, poverty, and inequality. However, in South Africa apprenticeship is still linked with a history of slavery, colonialism and apartheid. These historical discourses remain a challenge that hamper the process of reforming the apprenticeship programme. On the other hand, the Technical and Vocational Education and Training colleges have been a focus of the Department of Higher Education and Training to deliver co-ordinated post-school education and training with the aim of revitalising the artisanal skills and so respond to economic imperatives. However, these TVET colleges are beset by poor infrastructure, inadequate workplace learning, underqualified lecturers, and obsolete curricula, to mention but a few challenges. This implies that the TVET colleges are unable to deliver on their mandate to deliver middle level skills.

This study adopted the qualitative research approach to explore the management of the apprenticeship programme in selected TVET colleges in South Africa. It also investigates the challenges that hinder the management of the apprenticeship programme. Furthermore, it attempts to develop comprehensive guidelines that may be used by relevant stakeholders in managing the apprenticeship programme. The researcher believes that the results of this study may assist the Department of Higher Education and Training to harness the measures of managing the apprenticeship programme, address the systemic challenges hampering the management of the apprenticeship programme, and to help the policymakers to reconsider the legislation governing the apprenticeship programme.

In the next chapter, the literature review regarding the management of the apprenticeship programme is presented.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter discusses the management of the apprenticeship programme. In order to contextualise the study, the current researcher conducted a literature review. The searcher was thus able to gain a general understanding of the existing knowledge of the topic under investigation. It developed a theoretical foundation of the concepts and relationships that may be brought to the situation under research.

Onwuegbuzie, Leech and Collins (2012:2) assert that a literature review is a written summary of journal articles, books, monographs, government documents, dissertations, electronic resources, research publications reference books, policy statements and conference papers and other material about the theory, practice, and results of scientific inquiry. The explanation above suggests that a researcher will review previously written documents for information. The following paragraphs discuss the purposes of a literature review in this study.

The purpose of the literature review in this study was to obtain rich information on the management of apprenticeship programme. Accordingly, this was to determine the role of the stakeholders and to explore the challenges encountered in the management of apprenticeship programme and the remedies thereof. By reviewing what other researchers have done, the researcher was able to gain more insight into apprenticeship programme. The researcher was also able to provide a theory of the related literature in the management of the apprenticeship programme in TVET colleges.

In this chapter, the review of literature is structured into five segments. The first segment traces the evolution of apprenticeship programme in South Africa from the colonial period and into the post-1994 democratic era. The second part discusses the experience of management of the apprenticeship programme in developed and developing countries for good practice and benchmarking. The third section outlines the management of apprenticeship programmes in TVET colleges in South Africa. The

fourth part provides the costs and benefits of the apprenticeship programme. The fifth segment deals with the issues and challenges in the management of the apprenticeship programme and possible solutions to deal with them.

The importance and purpose of a literature review have been briefly provided. The next section provides the evolution of apprenticeship programme in South Africa from the colonial era to post-democratic South Africa.

2.2 EVOLUTION OF APPRENTICESHIP IN SOUTH AFRICA FROM 1652-2018

This section traces the history of apprenticeship programme from the colonial period, through the mining revolution at the turn of the 19th century, to the period during the World War ll, and the rise of apartheid in the late 1940s, to the period of reforms in the 1980s, and finally to the post-1994 democratic era. This history is imperative because it gives an insight into the development of the apprenticeship system prior to the change to the new democratic South Africa.

Wedekind (2013:39) argues that apprenticeship in South Africa was in fact linked directly to the system of slavery rather than being an importation of the European tradition from the middle ages. The Dutch traders and early settlers imported slaves to carry out semi-skilled and menial work in the towns and farms that developed in South Africa after 1652. Similarly, Harris (2010:147) argues that when the slaves were indentured as apprentices in the 18th century in the Cape Colony, the documents regulating Africans liberated from slaves' vessels were called 'Contracts of Indentured Apprentice'.

This implies that the indenture was a system of transferring specific skills to an apprentice during the contractual period. In addition, Mbatha, Wildschut, Mncwango, Ngazimbi and Twalo (2014:3) maintain that the concept of apprenticeship was introduced in 1775 as an integral part of the system of slavery. It allowed slave owners to 'apprentice' the 'boys' and 'free' Khoisan women until they were 25 years old. The term 'free' implies that, unlike other labourers in the Cape Colony, there were no specific codes used to regulate Khoisan workers, therefore they were 'free' labourers. Their status as workers was legally ambiguous. As labour pressures increased, this practice was extended to any Khoisan child. While these practices were abolished in

the late 1790s, they were reintroduced for ‘coloured’ or children between the age of 8 and 18 if they were deemed to be destitute, orphaned or simply if they had grown up on the employer’s farm. Therefore, right from its earliest incarnation, apprenticeship in South Africa was a coercive and exploitative relationship, rather than a beginning of the relationship between a master craftsman and a novice.

As a result, it can be concluded that the apprenticeship system in South Africa in the colonial era was a type of system of slavery where the slaves were apprenticed and forced to work for a master.

In relation to indentured labour, Bergh (2010:22) and Ngcwanga (2016:27) maintain that the practice of *inboekseling* (captured African juveniles used as slaves and later as apprentices) was practised in the Cape Colony (Western Cape Province) and in the Transvaal (i.e. Gauteng, North West, Limpopo and Mpumalanga provinces). This form of apprenticeship imposed on African children by the Voortrekkers remained an integral part of the Transvaal economy until 1870 when many labourers were attracted to the gold and diamond mines. The existence of this system was underpinned by the Apprenticeship Act of 1851. This Act provided for the regulation of the apprenticeship system by field cornets (from the army) and landrosts (magistrates). Furthermore, this Act stipulated that the apprenticeship of captured children was delimited by both the proven absence of the parents of abandoned children and by the requirement of emancipation at the age of 25. The Act also stipulated that apprentices should receive proper treatment. However, in practice, white farmers did not always adhere to the restrictions imposed by the law. Indentured labour was an essential source of labour for white farmers in the Transvaal until the early 1870s.

Accordingly, the present researcher believes that the indenture (inboekseling) system was a coercive child labour mechanism that was used by the white farmers to obtain cheap or free labour. This system existed to enrich white farmers and kept black African juveniles in a permanent state of weakness by denying them their human rights.

Apprenticeship training was recognised through the promulgation of the legislation. Glücksmann (2010:12) notes the following legislation:

- Apprenticeship of Servants Proclamation of April 23, 1812 allowed a settler to apprentice and employ without remuneration a free coloured child from the age of eight to 18 years, if it was an orphan or destitute, or had grown up on the employer's property.
- Masters and Servants Ordinance No. 1 of 1841 re-enacted the disciplinary code prescribed for apprenticed ex-slaves and was the first labour law to include workers of all races. The word 'servant' as defined included any person employed for wages or other remuneration to perform any handicraft or physical labour in agriculture or manufacturing or in domestic services. It also imposed a penalty of 20 shillings for each month that a child, whether destitute or not, was illegally detained by an employer. Penalties were to be paid either to the child's parent or guardian or in the case of destitute children to the Magistrate. This Ordinance repealed the Ordinance No 50 of 1828 and was itself later replaced by the Masters and Servants Act No 15 of 1856.

The legislation suggests that unjust proclamations and ordinances regulated the management of the apprenticeship programme during the colonial era. Moreover, the relationship between an apprentice and journeyman, which was mainly based on the transfer of skills and knowledge of the craft, was replaced by a master and servant relationship in which an apprentice was forced to work for the master.

In the same breath, Zwane, Surujlal and Dhurup (2014:991) posit that the earliest record of an apprenticeship contract in South Africa which described the relationship between master and apprentice was signed on 18 August 1857 in Fort Beaufort in the Cape of Good Hope (now Eastern Cape). Fifteen-year-old Edward Henry James entered into a contract with Arthur Charles Gardiner to be apprenticed as a wheelwright (a person with skills of trade or craft to make or repair wooden wheels) for five years. James's contract reveals that it was precise about duties and obligations and displayed most of the features traditionally associated with the medieval apprenticeship contract in England and elsewhere. In terms of his apprenticeship contract, the apprentice undertook to serve the master faithfully for the contract period, to obey his lawful commands and to keep his secrets. In return, the master undertook to instruct the

apprentice in all aspects of the trade, to provide him with board and lodging, and to pay him a set wage that would increase in each subsequent year of the apprenticeship.

This indicates that the management of the apprenticeship programme in the Cape of Good Hope was regulated by a legal contract based on the traditional apprenticeship programme requirements in which an apprentice-master craftsman or journeyman relationship existed. The researcher believes that if the legal contract was based on traditional apprenticeship, this arrangement was another form of exploiting the workers. In the traditional apprenticeship, the trainees were sent into the workplace and they were expected to adjust to the requirements of the workplace. It was assumed that learning took place immediately and there was no need for any special guidance or help. The traditional apprenticeship was characterised by long training and working hours. There was a clear division between theory and practice. There was no certificate issued at the end of the training.

Other developments that led to the rise of apprenticeship training were the establishment of the new industries, the development of the gold mining industries and the expansion of the South African Railways. Accordingly, Erasmus (2008:19) and Wedekind (2013:40) attest that these developments quickly created a burgeoning demand for technicians and apprentices. The Natal Government Railways was the first to start apprenticeship classes in the railway workshops in Durban in 1884. The Cape then followed with the provision of training in Salt River in 1890. Furthermore, the establishment of programmes for mining engineers at the South African College in Cape Town was introduced in 1894. In Uitenhage, the first apprenticeship classes started in 1895. These classes served as a starting point for one of the first industrial schools. Owing to white supremacy and apartheid, these classes were attended by whites only. The School of Mines was established in 1896 but was closed in October 1899 during the siege of Kimberley that took place during the Anglo-Boer War and reopened in July 1900. In the Transvaal, the Central South African Railways started railway apprenticeship classes in Pretoria in 1902. The South African Railways in Bloemfontein started the Orange Free State railway apprenticeship classes in 1904.

Odoro and Naong (2013:5) and the South African Qualifications Authority (SAQA) (2013:2) state that the apprenticeship system was formally introduced in 1910 with the

establishment of the Union of South Africa. This event coincided with early industrial development such as railways, mines, and harbours. These early labour markets needed skilled labour to survive. More importantly, the reasons for formalising the apprenticeship system were to reskill and retrain many whites who were displaced from their land because of the Anglo-Boer War (South African War).

Gamble (2012:5) indicates that Union of South Africa institutionalised the apprenticeship programme. This was done through the promulgation of two key pieces of legislation, namely, the Juvenile Affairs Act (No. 33 of 1921) and the Apprenticeship Act (No. 26 of 1922). On the one hand, Duncan (2013:15) points out that the Apprenticeship Act was passed to regulate apprenticeship to particular trades and to carry out contracts of apprenticeship. On the other hand, Wedekind (2013:4) contends that the Juvenile Affairs Act and the Apprenticeship Act were set up as mechanisms for placement of white youth in employment and crafted apprenticeship minimum entry requirements that were out of reach of the most of youth of other races. Therefore, it can be concluded that the legislation above regulated the management of the apprenticeship programme on racial guidelines.

According to SAQA (2013:2), the Apprenticeship Act was enforced in over 40 trades. In terms of this Act, only a handful of coloured learners met the applicable education entry level. This Act also made it impossible for blacks to be apprenticed since they lacked the means to meet the prescribed educational level, that is, Standard 6. Njeru (2014:5) argues that the Apprenticeship Act made no provision for the apprenticeship training to maintain any standards and in fact did not require apprentices to pass any qualifying examinations. Informally trained workers could possibly be just as knowledgeable about the jobs, with only race determining employment.

The researcher believes that the Apprenticeship Act protected and secured the white workers' positions by raising the educational qualifications for entrance to apprenticeships in numerous trades. By so doing, it was impossible for most black Africans to be apprenticed because they did not have the means to meet the prescribed educational requirements. This gave white workers a real advantage over black Africans.

It can be concluded that the Apprenticeship Act kept skilled jobs out of reach of the non-whites. In addition, the Education Act (No 47 of 1953) and the Apprenticeship Act also worked together to prevent any competition in the workplace in terms of race, colour, gender, and educational requirements.

Jordaan and Ukpere (2011:1094) maintain that the 1920s' policies perpetuated by Eiselen and Verwoerd included the Industrial Conciliation Act (No 11 of 1924). This Act intensified division of employees into racial categories and differentiated labourers by placing them into different classes. The Wage Act (No 12 of 1925) discriminated against gender and the race of workers and laid the foundation for discriminatory wages. Another Act that was promulgated was the Mines and Works Act (No 25 of 1926) that reserved mine jobs for whites and coloureds without due consideration of black workers. Clearly, this shows that the Nationalist Party strived to exclude Africans from skills development and to keep them either rural or unskilled or both.

The apartheid government continued implementing its segregation policies. Seroto (2013:102) states that the apartheid government also introduced the Promotion of Bantu Self-Government Act (No 46 of 1959). This Act led to the establishment of 10 Bantustans known as homelands. Four homelands, namely, Transkei, Bophuthatswana, Venda, Ciskei were 'independent states' and the governing regime treated them as foreign republics. The other six homelands created at that time were Lebowa, KaNgwane, Kwa-Ndebele, KwaZulu, Gazankulu, and Qwaqwa which remained self-governing states. These homelands were seen both as a dumping ground and a source of vast reserves of cheap labour from among those who were unemployed and politically disaffected.

The establishment of the homelands meant that the apartheid government wanted to deny black Africans opportunities to access apprenticeship training and other skills programmes because these homelands were poor and far from the big cities and industries. Therefore, apprenticeship programmes were poorly managed in the homelands.

Van der Bijl and Taylor (2016:99) indicate that the Advanced Technical Colleges Act (No. 40 of 1967) was passed. The Act spearheaded the establishment of Colleges for Advanced Technical Education (CATES). Furthermore, this Act can be seen as having heralded a significant period in the history of South African technical higher education because the CATES later became Technikons (Institutions of Higher Education) in 1979.

Those technical institutions divorced themselves from technical colleges, which continued with the artisan training programmes at N1-N3 levels while introducing N4-N6 levels. The N1- N6 is known as National Technical Education (NATED) or Report 191. The N1 -N6 engineering studies provide a variety of optional trade theory subjects such as electrical, mechanical and civil engineering and construction. These college based engineering programmes were introduced from the early 1980s where students received theoretically based technical education. These out-dated theoretical programmes are currently being offered by TVET colleges. The student takes twelve weeks (trimester) to complete each level. With a minimum N2 the student can register for apprenticeship training, and with the completion of N6 and having completed twenty four months on-the-job training , the student can apply for a National Diploma Certificate. In addition to the engineering study fields, colleges also began to offer NATED business and general study programmes from the late 1980s to cater for the emerging service economy. These out-dated programmes are still in existence and offered by the TVET colleges. The students take six months to complete each level (semester). Upon completing N6 the student has to undergo practical training for eighteen months to qualify for the National Diploma Certificate.

Socio-political pressure from South Africans and international communities mounted on the apartheid regime. In the 1970s and early 1980s reforms were introduced. The pressures for reforms were not merely economic and structural, but also political. Pieters (2014:25) reveals that black Unions challenged the apprenticeship system by means of strikes that led to what is known as the 1973 Durban strikes. Therefore, this is an indication that the South Africans in collaboration with the international communities wanted to eradicate racial policies, discrimination and apartheid.

The 1976 Soweto uprising triggered changes in education. De Villiers and Ntshoe (2014:598) state that as a result of the Soweto uprising and school boycotts, new education and training laws were introduced. The shift in state education and training policies was marked by the Education and Training Act (No 90 of 1979) that replaced the Bantu Education Act (No 47 of 1953) and the Bantu Special Education Act (No 24 of 1964). The new education department known as the Department of Education and Training (DET) was established. Moreover, the new MTA was also promulgated to govern a new apprenticeship and skills development system that opened up opportunities for blacks to enter into skills training and apprenticeship. However, these changes were still based on racial discrimination and inequalities.

The researcher holds the view that these reforms were meaningless because the objective of the 1976 uprising was not only a protest against Afrikaans as medium of instruction and for the eradication of Bantu Education but the main aim was to dismantle apartheid and its education system. The 1976 Soweto uprising was one of the political mechanisms used to pressurise South African regime to unban all political parties and engage in negotiations.

According to Ribeiro (2009:17) the impetus for reform culminated in the appointment of the State Commissions of Inquiry in the period 1977-1981. The Wiehahn Commission and the Riekert Commission were appointed simultaneously. The Wiehahn Commission looked at the labour laws while the Riekert Commission investigated issues surrounding black urbanisation and community development. These commissions recommended the streamlining and rationalisation of labour and training legislation, which culminated in the enactment of the Manpower Training Act (No 56 of 1981). This Act governed a new apprenticeship and skills development system that opened up opportunities for blacks to enter into skills training and apprenticeship. The enactment of the MTA of 1981 meant that the historically whites-only apprenticeship system became inclusive and accessible to the black African population.

The MTA defined an apprentice as:

> Any person employed in terms of a contract of apprenticeship registered or deemed to be registered in terms of the provisions of section 16(3)(d) or section 18(1)(c) or (3) and, for this purposes of sections 42,50,54, and includes any minor employed in terms of the provisions of section 15 (MTA, No 56 of 1981: xxxiv).

Kruss and Wildschut (2015:14) emphasise that the definition above implies that the person who successfully completes an apprenticeship is considered an artisan. This can be achieved through two sections of the MTA. First, Section 13 refers to those (young) persons who have been formally indentured as apprentices (contracted as apprentices), who meet the age criteria, who serve the full-time period and who trade test as prescribed by the Act.

Second, Section 28 apprentice of Chapter 2 of the MTA refers to (adults) persons not indentured under section 13 but who satisfy the Registrar of the Training that they have gained sufficient work experience over an adequate period and can therefore undergo the trade test, after which (if they pass) they become qualified artisans. Accordingly, this suggests that the management of the apprenticeship programme was done through Sections 13 and 28 of the MTA.

The MTA replaced the Apprenticeship Act and Training of Artisans Act which had created racially-segregated institutions for the training of employees. More importantly, this Act was the first consolidated law to regulate and promote training in all sectors of the economy under a single, non-racially defined Act.

For the first time, black Africans could be indentured as apprentices. In addition, a significant expansion of vocational schools and training centres for blacks occurred in the 1980s. However, Duncan (2013:15) claims that few blacks were given artisan and technician status while white workers continued to be the recipients of company and state training programmes.

The MTA established National Training Boards (NTBs) for different types of apprenticeship. The task assigned to NTBs was to undertake joint research with the Human Science Research Council (HSRC) into artisan training in South Africa. The outcome of this research was the *1985 Investigation into the Training of Artisans (NTB/HSRC 1985*) report. Vollenhoven (2016:3) reveals that the report provided a devastating critique of the apprenticeship model. The criticisms included, among others:

- In many cases, inappropriate approaches to apprenticeship training were followed, leading to the production of artisans of a low standard. This criticism referred to the 'sit-by-Nellie' approach, which refers to learning through observation that was mostly unsupervised and unstructured.
- The lower quality artisan was often associated with achieving artisan status by 'effluxion of time' (a time-based training system whereby mainly white workers acquired artisan status after five years irrespective of passing the trade test).
- General dissatisfaction with the time-based nature of apprenticeship training, which did not take into account the differing learning tempos among apprentices.
- Not all apprentices enjoyed the privilege of training over the full spectrum of their trade owing to inadequacies in facilities and opportunities provided by the employer. Many employers used apprentices to perform a specific task, thereby restricting the development of their overall skills.
- The system of control over apprenticeship training was unstructured and sporadic.

It can be concluded that, even after the promulgation of the MTA, the apprenticeship programme continued to be poorly managed. The findings of the above-cited investigation revealed that the training of artisans lacked coordination between employers within and between various industries. The management of the apprenticeship programme was uncoordinated, unstructured, sporadic, and still based on racial lines. Therefore, the Manpower Training Amendment Act of 1990 is an indication that the apartheid government wanted to address the findings of the National Training Boards and the HSRC in artisan training in South Arica.

Apprenticeship training in South Africa began to decline in the 1980s and its decline is attributed to a number of factors. Lolwane (2013:53) argues that over the years, the private sector mainly depended on State-Owned Enterprises (SOEs) for the development of artisans. The apartheid government supported the development of white artisans. There were interventions in the form of incentives for apprentices, supporting training centres and the commitment of SOEs for workplace experience. The SOEs were the leading suppliers of artisans until the mid-1980s when the SOEs faced privatisation and commercialisation. Dlamini (2014:18) reports that the late 1990s saw the reformulation and restructuring of the education and training system in South Africa. These changes led to the establishment of registered and accredited in-house training centres within certain businesses. These changes also contributed to the decline in the relationship between businesses and colleges. The businesses no longer relied heavily on colleges for the supply of skills but had in-house training centres for staff members.

This suggests that the SOEs were the nerve centre of the apprenticeship training providing artisans for their own industry needs as well as a surplus that would be absorbed into the economy. However, the once dominant SOEs such as Eskom and South African Airways are now the 'weak link' in South Africa's economy. This is attributed to the fact that many of them are experiencing operational and management turmoil, mainly because of political meddling by government ministers and officials, negatively affecting their ability to execute their mandates

2.3 LEGISLATION RELATED TO THE APPRENTICESHIP PROGRAMME

Because of the new reforms processes, a number of new Acts and policies were passed between 1995 and 1999. Allais (2012:633) asserts that the new democratic government introduced an entirely new skills dispensation in South Africa. The legislation sought to address the significant challenges facing the labour market such as discrimination, segmentation of the labour market, separation of education and training, high unemployment as well as the impact of global forces on the economy.

For the purpose of this study, only legislation and policies relevant to the apprenticeship programme are discussed in the next sections.

2.3.1 Green Paper on Skills Development for Economic and Employment Growth in South Africa 1997

The DoL's commitment to ensuring the implementation of a skills revolution drafted the Green Paper on Skills Development for Economic and Employment Growth in South Africa in 1997. Pieters (2014:28) points out that the Green Paper proposed the introduction of a national levy or grant system. The purpose of the levy was to increase investment in training and employer involvement. The levy also established SETAs to drive implementation and the introduction of learnerships. The Green Paper further indicated that traditional apprenticeships had been declining for a decade. The decline was attributed to the economic downturn, rising costs, reduced incentives, and increased multi-skilling of lower levels in the workforce. However, the Green Paper stipulated that the traditional apprenticeship would remain an essential component of the new learnership system. The researcher believes that the Green Paper changed the skills development landscape. This is evident because it paved the way for the promulgation of the Skills Development Act (SDA) (No 97 of 1998).

2.3.2 Skills Development Act (No 97 of 1998)

The SDA was promulgated in 1998 following extensive negotiations in the National Economic Development and Labour Council (NEDLAC) and a public participation process in Parliament. Accordingly, the SDA is one of the interventions adopted by the democratic government to redress the inequitable training legacies of the past. The SDA provides a framework within which institutions such as the National Skills Authority (NSA), SETAs, National Skills Fund (NSF), Skills Development Levies (SDL), labour centres and the Skills Development Planning Unit are created to improve the skills development of the South African workforce. More importantly, the main objective of the SDA is to develop and improve the skills of the citizens of the country so that they can actively participate in the economy and improve their social and economic status.

The former Minister of Public Service and Administration, Fraser-Moleketi, in her speech delivered at the launch of the Human Resources Development Strategy Conference (2008, 30 May), argued that it is through the SDA that employers were

expected to ensure that the work environment could provide work-related experience to the entrants, particularly those who had been previously disadvantaged with the aim of improving their opportunity of being part of the labour market. While the education training providers or institutions are playing a considerable role in transferring knowledge, the workplace contributes immensely to the transferring of skills through experiential learning. The Minister's speech buttresses the importance of a workplace component in training apprentices and the role employers should play in managing the apprenticeship programme. Apprenticeship continues to be governed by MTA (even after the promulgation of the SDA and the establishment of SETAs in April 2000) (RSA, 1998).

This arrangement was in line with the transitional provisions as contemplated in schedule 2A of the SDA. Schedule 2A states that all sections of the MTA including any regulations and conditions of apprenticeship that concern apprentices remain in force as far as they apply to any contract of apprenticeship in force immediately prior to the commencement of the Amendment Act as if the MTA had not been repealed. Furthermore, the SDA requires that "any outstanding matter concerning a contract of apprenticeship that had been completed before the commencement of the Amendment Act must be dealt with in terms of the prevailing law immediately before the commencement of the Amendment Act."

The researcher is of the view that the new government took a long time to implement the SDA. This could be attributed to the tension that existed between the DoL under which the SDA resided and the Department of Education, which demanded that the skills development be transferred to them. The establishment of the DHET in 2009, and the transfer of functions from the Provincial Department of Education to DHET known as 'migration', and the renaming of the FET colleges to be known as the TVETCs in terms of the FET Colleges Amendment Act (No 3 of 2012) (RSA, 2012) also contributed to further delays in the implementation of the SDA. The delay meant that the new government did not change the management of the apprenticeship programme and this impacted negatively on addressing the skills shortage. It can be concluded that the former technical colleges in terms of their establishment and composition were not regarded by the new government as appropriate venues to

implement the mandate of the SDA. More importantly, the FET Act was promulgated to redress the skills development imbalances of the past created by these technical colleges.

2.3.3 Further Education and Training Act (No 98 of 1998)

The post-1994 democratic government demonstrated its commitment to transforming the public FET colleges to be capable of delivering intermediate skills. The promulgation of the FET Act led to the restructuring of the FET sector in South Africa. This process merged 152 former technical and colleges of education and training centres into 50 multi-site FET colleges (RSA, 1998). Mummenthey (2010:21) states that the merger process resulted in previously disadvantaged colleges being integrated with previously advantaged colleges. Consequently, despite being mainly structural, the merger did not involve fundamental elements such as coherence and coordination, which posed a challenge for the newly formed institutions. However, Mgidi (2014:32) notes the significance of the FET Act in apprenticeship training as follows:

- The minimum requirement in terms of age for commencing apprenticeship is 16 years, although section 17 of the Act allows entrance to 15-year-olds by exception.
- The SDA specifies that an apprenticeship training programme should be delivered over 3-5 years depending on the designated trade.
- The Act also requires successful completion of a qualifying trade test.

The researcher holds the view that the FET Act did not register significant progress in terms of revitalising the apprenticeship programme. The apprenticeship programme continues to be governed by the MTA even after the promulgation of the SDA, the FET Act and the establishment of SETAs.

The new government continued to transform the FET sector to become multi-site campuses to train apprentices by introducing the FET Act (No 16 of 2006).

2.3.4 Further Education and Training Act (No 16 of 2006) as amended

According to Rasool and Mahembe (2014:35), the FET Act envisages a broad role for TVET colleges, which includes enabling students to acquire the necessary knowledge, practical skills and applied vocational and occupational competency. Another

qualification set which continues to be offered at TVET colleges is NATED/Report 191 programmes that provide a theoretical foundation for apprenticeship. After the introduction of NC(V), the NATED programmes were gazetted for a gradual phase-out. However, owing to lack of flexibility and lack of industry to support the NC(V) programmes, the phase-out of the engineering NATED programmes was halted in 2010. This means that the colleges continue to run parallel curricula for the NC(V) and NATED courses, which has impacted negatively on the management of the apprenticeship programme.

The researcher maintains that the intention of the FET Act was to grant the FET colleges autonomy with the aim of capacitating them to become flexible, responsive, and accountable. The FET Act mandated the colleges to assume the role of the employer. This implies that all the college lecturing staff who were employed by the provincial Department of Education were to be transferred to individual college councils as their new employers. A consequence of this was that many qualified lecturers opted to leave the college sector because they did not have confidence in the College Council as an employer. This suggests that the colleges have a problem with lecturers who were underqualified or had inappropriate qualifications.

2.3.5 Green Paper for Post-School Education and Training of 2012

The DHET introduced another measure to put the apprenticeship programme in perspective. This was done through the release of a Green Paper for Post-School Education and Training in 2012.

The Green Paper for Post-School Education and Training explains that the purpose of the TVET colleges is to achieve the vision for a single, coherent, differentiated and highly articulated post-school education and training system (DHET, 2012:x). The Green Paper further stipulates that the vision for the public TVET colleges is to offer two types of qualifications primarily. These qualifications are general vocational qualifications NC(V) and occupational programmes (i.e. short skills programmes, apprenticeships and learnerships). This means that the TVET colleges would be primary sites for vocational skills development for artisan and other occupations at a similar level in areas such as engineering and construction.

In his address to FET college principals on skills development for economic growth at Saint George Hotel, President Jacob Zuma pronounced the significance of the Green Paper for Post-School Education and Training as follows:

> ''The turnaround of FET colleges to occupy a more strategic role the country's development is dealt with extensively in the DHET Green Paper for Post-School Education and Training, and the National Development Plan (NDP) vision 2030 that further recommends that the colleges should be strengthened to deliver on the required programmes, increase throughput rate and expand their infrastructure to produce at least 30 000 artisans a year'' (Zuma, 2012 on 4th April).

Given this, the President saw the potential in FET colleges and the pivotal role these colleges can play in the development of intermediate skills provided that the colleges' infrastructure is revamped. In relation to the role above of the FET colleges, the DHET promulgated the White Paper for Post-School Education and Training to reinforce artisan development.

2.3.6 White Paper for Post-School Education and Training: Building an Expanded, Effective and Integrated Post-School System 2013

Mashinini (2014:11) indicates that the White Paper for Post-School Education and Training was introduced by DHET in 2013 to address the challenges of artisan development. The White Paper makes direct reference to national artisan development. It also indicates that in areas of work, such as the artisan trades, the apprenticeship system has been allowed to deteriorate since the mid-1980s. This resulted in a shortage of mid-level skills which advocates for re-establishment of a sound artisan training system as an urgent priority so that the country can produce 30 000 artisans a year by 2030. The White Paper is also significant in the management of the apprenticeship because it gave rise to the establishment of a single National Artisan Development System. Therefore, it can be concluded that the White Paper for Post-School Education and Training strives to revive and improve the apprenticeship programme.

In view of the aforementioned intention of the White Paper to prioritise apprenticeship, the researcher is gravely concerned about the funding of the apprenticeship programme. The White Paper promised to provide funding for staff and infrastructure but nothing has happened so far (as of 2019). College management obtains funding from SETAs, the NSF and private funders. Currently the TVET colleges are grappling with the problem of funding of the apprenticeship programme amidst the promise by the White Paper for Post-School Education and Training to deliver apprenticeships.

Having discussed the legislation related to skills development interventions aimed at improving the management of the apprenticeship programme, the next section focuses on the national skills development initiatives.

2.4 NATIONAL SKILLS DEVELOPMENT INITIATIVES

Various national initiatives were introduced to drive and promote skills development in its actual implementation process. This section focuses on the initiatives implemented by the democratic government to address the skills shortage in South Africa through the apprenticeship training. For the purpose of this study, two initiatives are discussed in the next paragraphs, namely, the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) and the Joint Initiative on Priority Skills Acquisition (JIPSA).

2.4.1 Accelerated Growth Initiative for South Africa (AsgiSA)

The South African government launched the AsgiSA on 6 February 2006. This initiative was the responsibility of the erstwhile Deputy President of the Republic of South Africa, Phumzile Mlambo-Ngcuka.

Mbeki (2014:14) maintains that the AsgiSA identifies the skills shortage as the primary constraint on the economy and the most significant impediment to achieving the economic growth required. The plan identifies several so-called ‘binding constraints’ that are considered to be inhibiting the economy from reaching the required rate of economic growth of 6% per annum. Similarly, Naidoo and Marè (2015:413) identify AsgiSA‘s six binding constraints that prevented South Africa from achieving its desired growth rate. These include the cost efficiency and capacity of the national logistics system; shortage of suitably skilled labour which drives up the costs; limited

competition and limited new investment opportunities; an excessive regulatory environment and the burden on small and medium enterprises (SMMEs); infrastructure backlogs that increase the cost of transporting goods; and deficiencies in the state organisation, capacity and leadership in government.

However, the researcher believes that AsgiSA did not achieve its goals, which included the reduction of poverty and unemployment, the stimulation of economic growth, and addressing the skills shortage. The failure could partly be ascribed to the resignation of Deputy President Phumzile Mlambo Ngcuka whose office was tasked with driving the implementation of AsgiSA. The failure of AsgiSA suggests lack of coordination from the government after the resignation of the Deputy President and a number of cabinet members.

2.4.2 Joint Initiative on Priority Skills Acquisition (JIPSA)

Another skills development intervention introduced by the South African government was the JIPSA in 2006. Mbeki (2014:42) points out that the main aim of JIPSA was to promote the expansion of intermediate artisan and technical skills. JIPSA was charged, among other things, with leading the implementation of a joint initiative of government, business and organised labour to accelerate the provision of priority skills to meet the AsgiSA objectives and increase the training output of the artisans to 50 000 between 2006 and 2011.

In addition, Naidoo and Marè (2015: 420) point out that the objectives and constraints envisaged in terms of skills by the AsgiSA gave rise to the JIPSA task team from March 2006 to 2010. The failure of the JIPSA task team to continue operating beyond 2010 may be attributed to lack of communication and coordination of business, labour, government, and educational institutions.

Having discussed the government initiatives to address skills shortage through the apprenticeship training, the next section discusses the establishment of the implementation agencies (SETAs), the challenges encountered by these agencies in managing the apprenticeship programme and the intervention by the DHET to resuscitate the apprenticeship programme.

2.5 ESTABLISHMENT OF THE IMPLEMENTATION AGENCIES

The SETAs were established by section 9(1) of the SDA (Act No 97 of 1998) and the SDL Act (No 9 of 1999) and were officially launched in March 2000. The DoL established 25 SETAs whose members included employers, trade unions, government, interested professional bodies, and bargaining councils (Mashongoane, 2015:33). In addition, Turner, Hlabi, Sartorius and Arendse (2013:2) indicate that all the SETAs had objectives: to prioritise critical skills for growth development and equity; to stimulate quality training for all in the workplace; to improve employability and sustainable development through skills development and self-employment; and to improve the quality and relevance of training and learning.

However, Abrahams (2014:1) underscores that when the SETAs were established, most of them did not have appropriate systems and procedures in place to deal with their core functions. Accordingly, the SETAs were expected to manage the introduction of learnerships, which were promoted at an ideological level as a transformation of the 'old' into the 'new' while also ensuring the continued implementation of the apprenticeship system, with which most of the SETAs' staff were not familiar. These institutions were characterised by mismanagement, governance crises and corruption, lack of capacity and non-performance, which saw some of them placed under administration or amalgamated. By 2003, the SETAs faced intense criticism sparked by various allegations of misconduct.

'Times Live 30 April 2010' reports that four SETAs were placed under administration for six months by the former Minister of Higher Education and Training, Dr Blade Nzimande, for bad governance, wasteful expenditure, fraud, non-submission of annual financial statements and adverse audit reports. These SETAs were the Public Service Sector Education and Training Authority (PSETA), Construction Education and Training Authority (CETA), Manufacturing, Advertising, Publishing, Printing, Packaging, Sector Education and Training Authority (MAPPSETA), and the Energy Sector Education and Training Authority (ESETA).

In addressing the SETAs, the former Minister of Higher Education and Training, Dr Blade Nzimande, called for better governance at the SETAs (Nzimande, 2011:1). He

urged the chairpersons of the SETAs to focus their efforts on turning around the negative perceptions that the public had of the SETAs. The Minister called on the SETAs to strengthen the system currently in place to ensure that the money was spent prudently and, where there were transgressions including corruption, the chairpersons together with the boards were to act decisively without fear or favour This shows that the Minister was concerned about the mismanagement in the SETAs and was prepared to remedy the situation. The mismanagement in the engineering-related CETA and ESETA implies that the apprenticeship programme was also affected by mismanagement.This suggests that the SETAs should have their 'houses in order'.

Baumgardt and Lekhetho (2013:422) note that, since the dawn of democracy in South Africa in 1994, there has been a massive shift in education towards upskilling large numbers of previously disadvantaged individuals. As a result, three National Skills Development Strategies, namely, National Skills Development Strategy 1 (NSDS 1), NSDS II, and NSDS III were introduced to address the skills shortage. These strategies are briefly discussed in the next section.

2.5.1 National Skills Development Strategy 1 (NSDS 1)

According to Van Zyl (2018:69) another visible step towards reviving apprenticeship and addressing the skills shortage in South Africa was the implementation of the National Skills Development Strategy (NSDS). The NSDS is a subordinate strategy to the Human Resource Development Strategy for South Africa. The Department of Labour implemented the first NSDS with the title of 'Skills for Productive Citizen for All', the NSDS 1, in February 2001 until March 2005. Van Zyl (2018:68) and Malambe (2016:33) point out that this strategy was implemented in accordance with the Skills Development Act of 1998. The NSDS1 had five objectives, namely; to develop a culture of high quality lifelong learning, to foster skills development in the formal economy for productivity and employability, to stimulate and support skills development for small business, to promote skills development for employability and sustainable livelihoods through social development initiatives ,and to assist new entrants with employment. The DoL indicated that the strategy sought to encourage a culture of compliance with the new legislation and for the parties to accept skills development as an investment rather than a cost. As a result, the DoL commissioned a number of impact studies in

relation to some of the objectives stipulated in the NSDS1. These studies revealed, among other things, the following:

- There has been a marked improvement in the implementation of the SDA within the public service. This was reflected in the number of Work Skills Plans (WSPs) submitted; a rise in training expenditure; and increased training opportunities for lower level public servants. However, uptake of learnerships remained low.
- Those who had participated in structured skills development initiatives felt more positive about their chances of promotion and knowledge of their jobs.
- Compliance with the legislation improved.
- The placement of unemployed learners in jobs improved while research also revealed that unemployed learners felt that they had inadequate exposure to on-the-job training partly because the job did not relate to the learnership.

The researcher is of the opinion that the implementation of the NSDS1 coincided with the severe governance problems of the management of the SETAs, including financial management and fraud, and a multitude of operational problems which made the roll out of NSDS1 an extremely difficult task.

2.5.2 National Skills Development Strategy II (NSDS II)

Van Zyl (2018:70 and Malambe (2016:33) aver that the second National Skills Development Strategy was implemented from April 2005 to March 2010. Like NSDS 1, NSDS II listed five objectives linked to qualitative and quantitative targets. The objectives were as follows:

- Prioritising and communicating critical skills for sustainable growth, development and equity;
- Promoting and accelerating quality training for all in the workplace;
- Promoting employability and sustainable livelihoods through skills development;
- Assisting designated group including new entrants to participate in accredited work, integrated learning and work-based programmes to acquire critical skills to enter the labour market and self-employment; and
- Improving quality and relevance of provision.

The NSDS II sought to address existing weaknesses and bottlenecks, which emerged during the first NSDS. A fundamental shift was a move away from chasing learner intake targets without measuring the impact of the intervention. Accordingly, there was a greater emphasis in NSDS II on the quality of training and its impact. A number of other significant interventions were proposed in NSDS II including the broadening of support of learners not only in learnership but other skills development programmes such as apprenticeships, internships, bursaries, experiential workplace learning, and unit standards-based skills programmes. Other areas of focus included a look at scarce and critical skills and efforts to build relations between SETAs and institutions for occupational excellence, which could include FETs or any other institutions or structures to measure the impact of SETA interventions. Therefore, it can be concluded that the National Skills Development II prioritised the apprenticeship programme and workplace learning.

2.5.3 National Skills Development Strategy III (NSDS lll)

The DHET in collaboration with the SETAs implemented the National Skills Development Strategy lll (NSDS lll) in 2011. This strategy will be in force until March 2018. According to Van Zyl (2018:72) this strategy sought to improve the effectiveness and efficiency of skills growth. More importantly, this strategy was the overarching strategic guide for skills development and provides direction to sector skills planning and implementation in the SETAs. It provided a framework for the SDL resource utilisation of these institutions as well as the NSF. The DHET (2010:8) emphasises that this strategy also set out the linkages with and responsibilities of other education and training stakeholders.

Central to the purpose of the NSDS lll was the encouragement and active support of the integration of workplace training with theoretical learning. The strategy sought to establish and promote closer links between employers and training institutions and between both of these and the SETAs. Key to the NSDS lll was the goal of increasing access to occupationally directed programmes. This goal 4.2 stipulated that workplace learning should be an integral part of all vocational programmes. Effective partnerships should be established between the education and training system and employers to provide workplace training that would ensure that skills have real labour-market

relevance and that young people would gain an early appreciation of exposure to the world of work. Taylor (2011:460) mentions that the NSDS III required SETAs to set aside 10% of the mandatory grant to fund workplace learning opportunities through learnerships, apprenticeships, and internships.

The NSDS III also identified the central role of SETAs funded by mandatory SDL to achieve a target of 10 000 artisans per annum. The NSDS III indicated the decisive role played by the DHET and the SETAs to integrate institutional learning (theory) and workplace learning. Therefore, it can be concluded that the NSDS III prioritised the improvement of managing apprenticeships.

Section 2.5 provided an overview of strategies aimed at implementing apprenticeship programmes as an intervention in addressing skills shortages. The next section discusses the establishment of the DHET.

2.6 ESTABLISHMENT OF THE DEPARTMENT OF HIGHER EDUCATION AND TRAINING IN 2009

Roberson (2015:10) points out that before July 2009 the Department of Education had been one department. This meant that before 2009 the TVET college system had never been given a particular focus as a post-school education and training sector but was aligned with the school system. Nkalane(2015:72) notes that it was only in July 2009 that the DHET was established. Through this, the former Department of Education was split into two ministries. Accordingly, the TVET colleges were moved from the Department of Basic Education (DBE) to the DHET which controlled the universities, SETAs, and the Adult Education and Training (AET) Centres.

The newly established DHET acquired some functions of the DoL. With the establishment of the DHET, the CETA 2006 was amended by the FET Colleges Act (No 3 of 2012), mainly to shift the administrative functions of FET colleges and the AET from the provincial departments staff in the FET college sections, college management and non-management and support staff from colleges to the DHET. Powell (2013:73) points out that the target date for final implementation of the function shift was on 1st April 2013.

According to the Green Paper for Post-School Education and Training (DHET, 2012: x), the purpose of establishing the DHET was to bring together all post-school education and training institutions, all higher education institutions, colleges and adult education formally with the DBE, and the SETAs formerly under the DoL. Duncan (2013:17) argues that the establishment of the DHET provided the opportunity to build a single, coherent, differentiated and highly articulated post-school education and training system.

The former Minister of Higher Education and Training, Dr Blade Nzimande, during the delivery of his Department Budget Vote (DHET, 2013c: 4) indicates that one of his priorities was to link the education and training institutions and the labour market. This is because workplace training is more effective if on-the-job training is combined with theoretical study. Against this backdrop, the DHET established a dedicated unit on Work-Integrated Learning (WIL), Partnerships and Innovation. This Unit engages with employers in both the private and public sector as well as with SETAs to promote and institutionalise WIL.

2.6.1 National Artisan Moderating Body (NAMB)

The NAMB is a national structure responsible for quality assurance in the management of the apprenticeship programme in the TVET colleges. According to Traut (2014:77) the former Minister of Higher Education and Training lamented that “no single national standard and no national moderation of SETAs quality assurance, the existing strategies resulted in a variety of confusing approaches to artisan development.” In addition, the former Minister of Higher Education and Training initiated the establishment of the NAMB. The purpose was to address lack of a national standard that resulted in disparities in trade competencies. The Minister formally launched the NAMB in November 2010 with a mandate to rationalise and revitalise artisan training throughout the country**.**

2.6.2 National Skills Accord

Qonde (2011:24) indicates that the National Skills Accord was signed in July 2012 by all the NEDLAC stakeholders. The government, business and labour committed themselves to expanding the numbers of apprenticeships, learnerships and

internships. More importantly, business and government agreed, together with the SETAs, to train 30 000 artisans per year with business committing itself to training 56% of the 30 000 artisans. A central role in this regard was to be played by the SOEs, with government departments and agencies as well as municipalities expected to increase their intake of various types of trainees. All major government infrastructure programmes were expected to take on trainees. DHET (2012:9) emphasises that through this Accord, the DHET wanted to turn every workplace into a training space. The signing of the National Skills Accord indicated that the stakeholders were committed to supporting and improving the management of the apprenticeship programme.

2.6.3 Decade of the Artisan, 2014-2024

In another endeavour to resuscitate the apprenticeship programme, the former Deputy Minister of Higher Education and Training, Mr Mduduzi Manana, launched and declared the next ten years (2014-2024) as the 'Decade of the Artisan'. August would also be known as 'The Month of TVET Colleges' in which the first week would be 'Open Week' and dedicated to promoting the 'Decade of the Artisan' campaign. Colleges were expected to invite high schools to promote programme offerings. This would further expose high school learners to some of the interesting activities that take place in engineering workshops. In his speech at the launch of the Decade of the Artisan in 2014 (DHET, 2014:1), the Minister announced that every TVET college would be implementing artisan development strategies and it would be these combined efforts that would ensure that the target to deliver on the objectives set in the NDP Vision 2030 that the Department should produce 30 000 artisans per annum by 2030 would be met. The Minister's speech indicated that TVET colleges were expected to play a prominent role in managing the apprenticeship programme in their respective colleges.

In order to provide a comparative context for the discussion of the apprenticeship programme in South Africa, a discussion of the apprenticeship programme in other countries is presented in the next section. Firstly, apprenticeship in selected developed countries is presented. This is followed by a discussion of apprenticeship in selected developing countries.

It will be difficult to discuss the apprenticeship experiences of all countries of the world. The choice of countries was guided by purposive sampling and includes examples of both developed countries, namely, Germany and Australia, and developing countries, namely, Botswana and Ghana.

The rationale for selecting these countries, the bearing they have on South Africa and the experience of managing the apprenticeship programme are discussed in the next sections. The developed countries, Germany and Australia, are discussed first, followed by developing countries, Botswana and Ghana**.**

2.7 THE APPRENTICESHIP PROGRAMME IN DEVELOPED COUNTRIES

In the context of this study, developed countries are sovereign countries that are developed in terms of economy and industrialisation and have a high Human Development Index rating (i.e. excellent medical, transportation, communication and educational facilities, infrastructural and technological advancement, and a higher per capita income). These countries generate more revenue from the service sector compared to the industrial sector service as they have a post-industrial economy.

2.7.1 Rationale for Selecting Germany

The researcher selected Germany because it has an excellent reputation in many countries worldwide with its dual system apprenticeship, and collaboration between government and industry, which pay, employ and train apprentices, and enjoy participation with social partners. More importantly, Wyman (2012:11) points out that Germany has partnerships in the development of artisans, where employers, trade unions and the Vocational Education and Training schools have linkages to getting the learner artisan ‘in’ and ‘through’ the system to become qualified and competent artisans.

Mgidi (2014:19) explains that the German dual system is also defined as a formal, structured programme of vocational preparation, sponsored by employers, and offers part-time, off-the-job training, and work experience. The apprenticeship system leads to a recognised vocational qualification at craft or higher levels and takes at least two to three years to complete.

Mckinsey and Company (2015:127) attest that Germany's dual apprenticeship system has been successful. Its dropout rate is low, and more than half of participating employers offer their apprentices full-time employment after training. As a result, this has helped Germany to achieve the lowest rates of youth unemployment in Europe at 10% in 2010 against an average of 19% for developed countries.

In addition, Othman et al. (2011:155) emphasise that the German dual system is founded on close links between public and private training organisations. The participation of companies in apprenticeship training is voluntary; however, standards and content of training are agreed by employers and trade unions and then legally codified. The independence of the system is preserved through corporate bodies (chambers) and, in the main, corporate training providers finance the system with additional funding coming from the government.

South Africa adopted the German dual system by introducing the integrated training model in 2012. This model is known as Work-Based Exposure. The TVET colleges work with local companies to present both NATED and NC(V) curriculum in an integrated format supported by weekly exposure at the workplace. This integrated model enables learners to put into practice the theory and simulated practicals taught at the college in the real world of work.

Brown (2012:6) and Duncan (2013:18) indicate that the preparations at a college level have been actively supported by the DHET with the objective of piloting the German dual system apprenticeship across multiple artisan-related occupations and all TVET college campuses. However, at present, only three occupations are supported at three colleges: Mechatronics Technician at the Port Elizabeth TVET College, Struandale Campus; Welding at West Coast College, Vredenburg Campus; and Electrician at Richtek College, a campus of the Umfolozi TVET College.

2.7.1.1 Apprenticeship in Germany

Baldi, Brüggemann-Borck and Schlaak (2014:4) assert that, in Germany, vocational training is accomplished by completing more than 300 programmes of officially recognised occupations to gain the competence of a skilled worker in that field. Solga, Protsch, Ebner and Fay (2014:7) further elaborate that the apprenticeship system in

Germany is segmented into two layers: lower secondary school graduates and upper secondary school degrees. The lower secondary school covers 40 occupations with a 1½ or 2-year training period. These programmes have lower requirements in terms of theoretical knowledge. Examples of these occupations are crafts, agriculture, shop assistant or hairdresser. Most of the occupation-specific training programmes in the upper secondary system are 3-year programmes. The upper secondary system covers 54 3½-year programmes. The occupational certificates earned are classified as upper secondary school degrees. Examples of these occupations are bank clerks and insurance clerks.

According to Krishnan and Shaorshadze (2013:6) and Wildelband (2013:7) the apprenticeship curriculum in Germany is made up of the duality of training sites and parallel on-site training. This means that the apprentices spend one to two days a week in a vocational school or educational institutions where they learn theory in general and occupation-specific skills, and three to four days in the training firm or company where they mostly work and learn occupation-specific skills. Similarly, Solga et al. (2014:12) state that, because German apprenticeship follows the dual system model, the firm also provides workplace training following the outline of the training regulations for the appropriate occupation. Apprenticeship firms must prove that they have the equipment and facilities to provide this training and have a qualified person to supervise the apprentice. This implies that firms should prove that they meet the requirements and standards of training before conducting workplace training.

According to Bahl (2013:157), any company in Germany that wants to offer an apprenticeship needs to register at least one employee who can function as a designated, responsible workplace trainer. In small companies, all employees mutually take care of the apprentices and in medium and large companies training managers are responsible for all the training in all occupations offered by the company. Full-time trainers are found in the industrial manufacturing sector that can afford to run and equip separate training workshops.

Wyman (2012:11) explains that the German dual vocational training, namely, Vocational Education and Training Schools, and the apprenticeship training are funded differently. Firstly, the government bears the costs of the vocational school-based

training. The costs of the one to two days a week full-time education and training provided for apprentices in the vocational school are met by the regional education authorities. The costs of external assessment and examinations are paid by the Chambers of Commerce, which are funded through a compulsory membership subscription paid by businesses.

Secondly, the apprenticeship training is firm-sponsored and there is no direct financial transfer of public money into the apprenticeship training. Moreover, the employers bear all the costs of the firm-based apprentices including training of staff and trainers, and workplace learning material and equipment. The recruitment of the apprentices is the responsibility of the firms or companies. Saniter and Dietmer (2013:95) maintain that there are no official eligibility criteria for admission to dual apprenticeship programmes. In practice, an employer can contract every school leaver, including school dropouts, who have finished the compulsory schooling (Hauptsschule) after nine years.

In contrast, Baldi et al. (2014:2) argue that firms might be reluctant to hire an apprentice if business or economic conditions are adverse. A firm can then terminate a training contract unilaterally for economic reasons. Despite the economic situation, firms benefit most in the recruitment of the apprentices because they can create a group of employees with suitable skills needed by the labour market. The firm-sponsored apprenticeship training indicates their commitment to invest considerable money up-front in apprenticeship training.

Smith (2013:23) expresses a different view that from the moment the apprentice is contracted, he or she is considered an employee. The existence of the apprenticeship contract shows that the legal framework supports the apprenticeship training in Germany. In addition, managing apprenticeship programmes in Germany involves multiple stakeholders.

In the same vein, Gonon and Deissinger (2015: 68) and Krishnan and Shaorshadze (2013:6) attest that in Germany, Federal Government, chambers, trade unions, and employer organisations represent the major stakeholders. These stakeholders are responsible for various functions in the apprenticeship system beyond the narrow sphere of governmental regulation. They strive to keep the training curriculum up to

date. The role of these stakeholders in managing the apprenticeship programme is briefly discussed in the ensuing sub-sections.

The Chambers of Commerce and Industry play a prominent role in managing the apprenticeship programme. Saniter and Deitmer (2013:96) maintain that the chambers supervise and monitor the apprenticeship training. In particular, the chambers check whether the company can fulfil the requirements, for example, whether the trainers have trainer certification. More importantly, the chambers monitor the quality of the training and conduct the mid-term and final examinations as well as the craftsmen's examinations. The advisers appointed by the Chamber must ensure that firms comply with the training regulations. In the event that a firm does not carry out the training according to the core curriculum, the adviser will request the firm to correct the situation. This shows good governance in the role played by the Chambers of Commerce and Industry in the management of the apprenticeship programme.

Moreover, Kriechel, Muehlemann, Pferfer and Shuette (2012:2) indicate that works councils (collective bargaining of social partners) play an essential role within the German system of industrial relations. In addition, Zaki, Mohamed and Yusof (2012:106) point out those trade unions have a much stronger influence on the management of the apprenticeship training. They provide ongoing renewal of the training content and the examination syllabus. In practice, the unions support the implementation of works councils.

Conversely, as many works council members are also members of unions, these two institutions are interlinked at the firm level. However, Mundlak (2016:174) points out that the works councils in Germany also allow for communication with workers. While unions are intended to represent the more adversarial aspect of industrial relations, the works councils reflect its cooperative aspect. Therefore, they are established to advance the goals of the company, even if they are composed exclusively of worker representatives. The works councils can, of course, serve as watchful guardians, but they are denied the power to negotiate a collective wage agreement.

However, Kriechel et al. (2012:1) point out that works councils are in charge of implementing and enforcing quality standards of the apprenticeship training and may,

therefore, incur higher training costs for the firm. Furthermore, the works councils may formally object to hiring and firing decisions taken by the management if equity criteria are not respected. They further monitor safety standards and are responsible for the implementation and monitoring of collective bargaining agreements in the firm. Therefore, the works councils also have a formal obligation to represent the interest of the apprentice, thereby increasing the likelihood that the firm would offer a regular employment contract to the apprentice after training.

Other stakeholders involved in the management of the apprenticeship programme are employer and employee organisations. Steedman (2010:23) underscores that employer and employee organisations play an essential role in the management of the apprenticeship. Therefore, the employer and employee organisations must be consulted at specified stages in agreeing to the content of apprenticeship occupations.

They also participate in the regional education authorities' decision-making on the occupationally relevant elements of the vocational school syllabus. The employer and employee representatives participate in the examination and assessment process together with a representative of the school authority. If the firms lack some equipment or facilities to train the apprentices, the Group Training Centre and/or the employers could be approached to supply the equipment or facilities.

2.7.1.2 Strengths and weaknesses

The following are commonly held to be strengths of the apprenticeship programme in Germany.

- Saniter and Smith (2013:100) and Solga et al. (2014:15) indicate that the strength of German apprenticeship is the holistic approach of not only training but also of practical and theoretical assessment that helps to produce well accepted qualifications across the whole German nation;
- According to Dustmann and Schönberg (2012:55) and Pfeifer (2016:11 companies in Germany are willing to take apprentices without subsidies as they believe in the apprenticeship model and because it fits into their personal recruitment plans;
- Saniter and Smith (2013:100) and Gessler and Howe (2012:17) reveal that as a result of apprenticeship training youth unemployment in Germany is at 7.2% as

compared with other European countries (UK over 20%, France 24%, Spain 49%, Italy 29%, Sweden 22%). Eurostat figures from June 2012 are favourable owing to the fact that there is substantial intake by the companies after completion of the apprenticeship training.

Potential weaknesses of the apprenticeship programme are as follows:

- Bald et al.(2014:5) observe that the German apprenticeship is dependent on the labour market. When the economy is strong, the number of offered places can increase more easily. In the years of economic downturn or even depression, it can lower the number of apprenticeship places on offer;
- There are relatively high dropout rates in some sectors or regions (Hauschildt & Piening, 2013:202).

The apprenticeship in Germany has been placed in perspective. The next section focuses on apprenticeship in Australia.

2.7.2 Rationale for Selecting Australia

The researcher selected Australia because it has many skills-assessing authorities. Moreover, it is also an English speaking country like South Africa. Both South Africa and Australia are signatories to the Washington and Sydney Accords. The Washington and Sydney Accords are multi-lateral agreements between bodies responsible for accrediting engineering technologist qualification programmes in each of the signatory countries. They recognise the substantial equivalency of programmes accredited by those bodies, and recommend that graduates of accredited programmes in any of the signatory countries be recognised by the other countries as having met the academic requirements for entry to the practice of engineering technologist. The Washington and Sydney Accords were signed in 1989 and 2001 respectively. Jaftha, Zuzani and Burger (2010:243) and Mgidi (2014:32 contend that Australia has a comprehensive qualifications framework similar to that of South Africa. The Australian states have policies that are critical in the evaluation of the management of apprenticeship for artisan development. Furthermore, Australia has removed age restrictions in the training of the apprentices and includes older persons (older apprentices) because they seemed to be more committed than younger apprentices. This arrangement has

also contributed to the increase in artisan development in Australia. In addition, the intake of Australian apprentices is demand-driven and informed by the industry.

The Australian apprenticeship system has relevance for South Africa. Smith and Kemmis (2013:1) concur that the key features of the Australian apprenticeship system such as well-established formal apprenticeship, stakeholder participation, and articulation to higher-level qualifications might be used to develop the South African model of apprenticeship. It is well recognised that apprenticeship systems need to grow from countries' national economic and cultural contexts and cannot be transplanted from one country to another as complete entities.

2.7.2.1 Apprenticeship in Australia

The body of literature such as Vogler-Ludwig, Giernakzyk, Stock and Hogarth (2012:9) and the Australian government (2013:2) point out that, currently, the Australian apprenticeship system encompasses all traditional apprenticeships in well-established trades and traineeships in other often more service-oriented occupations.

The traditional apprenticeship and traineeships involve a legal contract between employer and apprentice. The difference lies in the duration of the training. The traditional apprenticeships last for three to four years, and traineeships last for six months to two years. The traineeships have lower skill requirements than the traditional apprenticeships and often take place in sales service and clerical occupations. In 1997, the traditional apprenticeship and the traineeship systems were brought together under the umbrella of the Australian apprenticeship. The apprenticeship system, although in common usage, is usually referred to separately. Cocks, Thoresen and Lee (2013:3) state that the Australian apprenticeships are nationally certified courses within the broader Vocational Education and Training system.

Knight and Karmel (2011:115) observe that Australia has 'pre-apprenticeship programmes'. This type of apprenticeship is an off-the-job programme that prepares people waiting to enter into an apprenticeship but the onus to find an employer then lies with the apprentice. The purpose of the pre-apprenticeship programmes is to match the potential apprentices so that they have a clear idea of what the apprenticeship or traineeship involves.

In the same breath, Cannan (2015:123) emphasises the purpose of pre-apprentice programmes as being useful in providing students with the relevant underpinning knowledge and practical skills before being employed in a workplace. This suggests that the youth in Australia are better prepared for specific industries by exposing them to the expectations of workplaces, thus preparing young people from disadvantaged backgrounds for an apprenticeship. It also increases employers' confidence in employing apprentices.

According to Vogler-Ludwig et al. (2012:10), the funding of the apprenticeship programme is done by two sets of agencies: the Group Training Companies (GTOs) formerly known as Group Training Companies (GTCs) and Australian Apprenticeship Centres (AACs) formerly known as New Apprenticeship Centres (NACs).

The Australian government pays a range of incentives to those employers who provide an apprenticeship or traineeship to a person who has a disability. The government practically covers all the cost of the formal, off-the-job training delivered to apprentices and trainees even when the training provider delivers the training. The government also pays personal benefit support to help offset the effects of low wages during training, including public transport and car registration concessions, the living-away-from-home allowance, tools-for-your-trade allowance, travel, and accommodation allowance. The funding of the apprenticeship and incentivising the apprentices or the trainees indicate useful strategies to improve the retention and completion rates.

Another role player in the management of the apprenticeship in Australia is the AACs (Bednarz, 2014:11). These centres market apprenticeships to potential employers and apprentices. They manage the contract process and ensure that appropriate employment and completion incentives are paid. Furthermore, these centres make employers aware of special incentives that may be available for employing apprentices from disadvantaged groups; for example, indigenous or disabled people. The AACs are also expected to play a role in making sure that the employer-apprentice relationship proceeds smoothly and to report any problems to the appropriate authority. The centres are contracted by the Commonwealth Government Department to provide these services. Therefore, it can be concluded that the role played by the AACs is an indication of the necessary support provided to the apprentices.

Smith and Kemmis (2013:24) state that in Australia, the completed apprentices enjoy the exit support from various sources such as the Group Training Organisations (GTOs) that allow them to remain with their companies after completion. This implies that the apprentices need assistance and support adjusting to working life and socialising into the occupation while developing their skills.

An important characteristic of the Australian system is the availability of an apprenticeship training guide (Bendigo TAFE, 2014:3) which includes the following:

- The individual training plan: The TAFE and the employer negotiate and agree on the training assessment that will take place during the apprenticeship. This agreement is known as the training plan. The teacher/assessor will assist with:
- Language, literacy and numeracy.
- RPL: During the pre-enrolment interview, the apprentice will be advised to indicate prior learning or work experience so that they can be exempted from selected competencies or units from the course.
- Credit transfer: Credit transfer may be available if the apprentice has documented evidence of achievement in a relevant unit or course.
- Structured training: Structured training may be delivered in one of two ways (or a combination of both). The off-the-job training is delivered by TAFE in a formal setting. It is often referred to as ‘trade school’ or ‘block release’. Timetables may vary but may include one day per week or block weeks on campus. The on-the-job workplace based training is structured training and assessment is organised in the workplace by the teacher/assessor.
- Withdrawal from routine duties: For on-the-job, workplace-based, structured training apprentices undertaking a qualification at Certificate III level and above are entitled to a minimum of three hours per week withdrawal time from normal work duties to undertake structured training and learning.
- Learning material: There is a unit outline for each competency. These may be available online or can be printed.
- Text books: The apprentices will be given a list of suggested and compulsory resources.

- Keeping resources: Using log books or diaries to record information. It is the responsibility of the apprentice to complete the log books or diaries.
- Attendance and class standards: The apprentices are expected to attend 100% of scheduled classes. In the event that classes are missed due to illness or other personal reasons, the apprentice should inform the teacher or assessor of the absence. If the illness is extended over a period of time, a doctor's certificate is necessary.
- Time wasting: The apprentices should at all times be actively engaged in their assigned work and not interrupt or distract other apprentices from their assigned work.

2.7.2.2 Strengths and weaknesses

Couldrey and Loveder (2016:4) indicate that the Australian apprenticeship has a high level of interest and engagement from all stakeholders. In addition, Drumbrell and Smith (2013:161) and Poulsen and Eberhardt (2016:11) maintain that the Australian apprenticeship system consists of traditional apprenticeship (trade), traineeship (non-trade occupations) and pre-apprenticeship. Pfeifer (2016:16) identifies non-completion of training by the learners as one of the weaknesses of the Australian apprenticeship programme. The other weakness of the Australian apprenticeship identify by (Smith, 2013:45) is the resistance from some stakeholders to changes in the system, making improvements challenging to negotiate

The ensuing section discusses the apprenticeship programme in developing countries, namely, Botswana and Ghana.

2.8 THE APPRENTICESHIP PROGRAMME IN DEVELOPING COUNTRIES

In the context of this study, developing countries refer to the countries that lack a high degree of industrialisation, infrastructure and other capital investment, sophisticated technology, and have a low human development index (i.e. low GDP, widespread literacy, poor educational transportation, communication and medical facilities, poor living conditions and high levels of unemployment and poverty to mention a few).

The next section discusses the apprenticeship programme in developing countries with reference to Botswana and Ghana. The rationale for selecting these countries and their impact on South Africa is provided.

2.8.1 Rationale for Selecting Botswana

The Republic of Botswana is a former British colony situated in sub-Saharan Africa. The country is landlocked and is surrounded by countries like South Africa, Namibia, Zimbabwe and Zambia. Botswana estimates its population to be approximately 2.1 million. The official languages are Setswana and English. It is democratically ruled and a multiparty state.

The researcher selected Botswana for this study because it shares skills with South Africa through migration of labour. Ngati (2015:1) and Yezo (2013:1) assert that the economy of Botswana is one of the most successful in Africa. Botswana's developing economy needs skills that can grow and sustain its economic activities, particularly in the technical and industrial areas. Moswela and Chiparo (2015:105) argue that currently, such skills are in short supply leading to a heavy reliance on imported skills in these areas. Ngati (2015:30) highlights that the South African TVET systems have some commonalities with those in Botswana. As former British colonies, both countries have inherited most of their education policies from the United Kingdom.

Another reason is observed by Tau and Modesto (2010:2) that, like many developing countries, Botswana is continuously grappling with socio-economic challenges of youth unemployment and their migration to cities and towns, soaring crime, school dropout and poverty. Against this backdrop, the experience of Botswana apprenticeship training is examined.

The effectiveness of the Madirelo Training and Testing Centre (MTTC) has been questioned. The centre is characterised by lack of expertise and capacity to develop occupation-based qualifications in the competency-mode of curriculum developments. As a result, the most of the construction artisans are from neighbouring countries, notably South Africa (Tau & Modesto, 2010:3). This has a bearing on South Africa in the sense that the country is experiencing a brain drain and poaching of the skilled workforce.

Having provided the rationale for selecting Botswana for this study, the following section discusses the Apprenticeship Scheme in Botswana. Firstly, the discussion focuses on the history of Botswana Brigades as the first integrated community initiative in Botswana to provide an alternative to formal secondary education and, secondly, the apprenticeship scheme in Botswana.

2.8.1.1 Brief history of Botswana Brigades

According to Morris (2015:31), the Botswana Brigades were established in 1965 by Patric van Rensburg, Principal of Serowe Builders' Brigades, as an alternative to formal secondary education. The Brigades were started as an integrated community initiative designed to respond to the unemployment of school leavers without any opportunities for education, training or work. A vital component of the Brigades is their focus on community development, both from a perspective of providing skills training for youth and through the supply of cheaper goods and services to the community.

Assan (2012:520) points out that the concept of Brigades as used in Botswana refers to a cluster of trainees such as builders, carpenters, auto-mechanics, and farmers engaged in over 16 different trades. The Brigades are independent organisations that offer training opportunities for school leavers.

2.8.1.2 Strengths and weaknesses of Botswana Brigades

Strengths

Ngati (2015:31) and Yezo (2013:1) assert that the objectives of the Brigades were to fill a vacuum in skills development for many young people in rural areas, promote rural development, provide goods and services to the communities and curb urban migration. In the same vein, Baliyan and Baliyan (2013:207) and Morris (2015:31) indicate that currently there are 41 Brigades Centres initiated by communities in various villages of Botswana which provide artisan training under the concept of Education with Production (EWP) or 'Training with Production'. As the names imply, the centres have two divisions: training and production. The education division focuses on theoretical courses while the training division focuses on their practical application.

Weaknesses

Ngati (2015:35) argues that the Department of Vocational Education and Training in the Ministry of Education commissioned a comprehensive evaluation of the Botswana Brigades. This resulted in the 2001 McEvoy report. Among issues raised in the report are:

- The low quality of facilities, with no evidence of any attempt to repair, maintain or, in most cases, clean facilities, and in some cases, they have 'old and obsolete' machinery;
- A narrow range of course offerings and traditional 'teacher-centred' methodologies;
- Rapid staff turnover and poor staff morale;
- The relatively young staff who required 'upskilling' which represents, according to the report, an essential and urgent requirement for TVET reform.

The findings above suggest that the training of artisans in the Brigades Centres was poorly managed. According to Yezo (2013:4), the government took over 21 Brigades in 2009, and the last 18 were taken over in 2011. Two of the Brigades belonging to churches were not taken over as the owners were not willing to hand them to the government. The Deeds of Trust and Boards of Trustees for all the Brigades taken over were immediately dissolved. The Department of Technical and Vocational Education (DTVET) has been moved to the Ministry of Tertiary Education, Research and Technology (MoTE) and now operates as part of the new Department of Teacher Training and Technical Education (DTT & TE). Currently, the Brigades are government institutions under this new department and the trainees are now paying 5% of the cost of their training as a form of cost recovery, while the Government of Botswana covers 95%. More importantly, the absorption of the Brigades into an Apprenticeship Scheme and funding of the apprenticeship programme is an indication that the Government of Botswana is committed to consolidating the apprenticeship training to make it a compelling programme for the apprentices.

2.8.2 The Apprenticeship Scheme in Botswana

Morris (2015:33) argues that the dual system Apprenticeship Scheme in Botswana was established in 1987 with substantial support from Germany. The purpose of the dual

system Apprenticeship Scheme was an attempt to balance employer-based industrial training with block release periods in technical colleges for the theoretical component. According to Moswela and Chiparo (2015:115), the MTTC was modelled on the German dual system of apprenticeship training. The latter provides for alternating periods of on-the-job and institutional training. In practice, the MTTC currently offers programmes in brickwork, painting, plumbing, welding and fabrication, machining and fitting, electrical, automotive textile, electronics, massive plant, hairdressing, and hotel and catering.

Mmolotsa (2013:63) indicates that the Ministry of Labour and Home Affairs (MLHA) currently manages the dual system Apprenticeship Scheme through the MTTC. The roles of the MTTC in the management of the Apprenticeship Scheme are as follows:

- Coordinating apprenticeship and industrial programmes;
- Monitoring workplace and controlling logbooks; and
- Managing skills testing and setting of the National Craft Certificate (NCC) examinations.

Moswela and Chiparo (2015:115) maintain that the DTVET and MTTC are responsible for developing the curricula. Molz (2015:30) further indicates that Botswana uses guiding principles for the development of curricula, which may be training, occupational standards or professional profiles. These instruments contain the account of the contents, the skills and the desired results in different technical areas that all apprentices have to achieve by the end of the apprenticeship. Botswana applies a competency-based approach to curriculum development.

In addition, Mmolotsa (2013:58) contends that the curriculum is developed jointly with the industry, government representatives, educational experts, industry associations, and representatives of employers, organisations, and trade unions. Such provisions minimise the tensions that often manifest themselves between a government that might prefer academic subjects in the curriculum, and the knowledge and technical foundations that industry wants to see reflected in the curriculum.

The Botswana Training Authority (BOTA) was established in terms of the Vocational Training Act (No 22 of 1998). Morris (2015:35) underscores that BOTA regulates work-

based learning, ensures quality and raises standards by harmonising existing training provision, regulates the apprenticeship and industrial training and coordinating compliance, and formulates and review policies related to the apprenticeship training. The Botswana Qualifications Authority (BQA), formerly known as BOTA, has two main objectives: maintaining the National Credit and Qualifications Framework (NCQF) and coordinating the education, training and skills development quality assurance system. Moreover, the establishment of the BQA suggests that the government wants to regulate the quality assurance of apprenticeship programmes.

Muller-Norouzi (2018:15) posits Botswana College of Engineering and Technology, particularly in the fields of automotive engineering and electronic/electrical engineering, established a college partnership with industry. Priority is given to companies who are key players in industry and companies who provide structured training programmes. The schedule of attachment will be arranged according to the organisation's convenience. Throughout the attachment, TVET staff would be guided by a supervisor or a line manager assigned by the host company. The Head of Department (HOD) facilitating the attachment also visits the staff on attachment to assess and monitor the progress. The aim of this partnership is to expose the lecturers to the latest industry technologies and work processes applied in industry. Passing on knowledge and skills gained during an attachment is instrumental to improving teaching and training knowledge and skills at college level.

2.8.2.1 Strengths and weaknesses

According to Mmolotsa (2013:61) and Ngati (2015:77), apprenticeship scheme programmes are demand-driven as opposed to supply-driven because of the industries' influence. BQA (formerly BOTA) accredits all the programmes. Yezo (2013:51) argues that most of the apprenticeship courses lack up-to-date learning resources which would make the system more effective. The programmes lack timely reviews; in fact, most of the programmes have not been reviewed since 1999. Morris (2015:93) asserts that the apprenticeship curriculum has not been revised since its introduction in 1986 and has many inconsistencies, old and redundant industrial practices and lacks the provision of information technology.

The ensuing section explores the reasons for selecting Ghana for this study and the importance of their apprenticeship system for South Africa**.**

2.8.3 Rationale for Selecting Ghana

Ghana was selected for this study because both traditional and informal apprenticeship systems exist in Ghana over the years. Anokye and Afrane (2014:84) and Sonnenberg 2012:95) maintain these apprenticeship systems equipped and empowered many creative, intelligent Ghanaians who for some extenuating circumstances had to drop out of the formal education or never had the privilege of pursuing formal education. Another reason for choosing Ghana was that the increasing population in Ghana with its high unemployment rate coupled with a recruitment freeze in informal employment necessitated more attention to be paid to the role of apprenticeships in employment creation. However, Kwarteng, Abraham, Emmanuel and Aboagye (2014:1) maintain that there is no doubt that the informal employment and the private sector will continue to be the main engine of growth for the economy. In addition, according to Gamble (2010:10) International Labour Office (ILO) studies identify informal apprenticeship as the main source of skills development and employment or self-employment promotion in many African countries including Ghana.

2.8.3.1 Apprenticeship in Ghana

According to Endashaw (2014:31) in Ghana, there are two modalities of apprenticeship programmes, namely, traditional and informal apprenticeship.

2.8.3.2 Traditional apprenticeship

Ratnata (2015:128) explains traditional apprenticeship as a form of apprenticeship in which a person gains particular expertise from people who are experts in their field. The apprentice starts activities by helping with the most uncomplicated duties. Aryeetey, Doh and Andoh (2013:140) point out that the traditional apprenticeship system prefers handcrafts to knowledge or reasoning. The traditional apprenticeships are self-regulating and provide practical, hands-on training. This training system also provides direct employable skills immediately after training.

According to Anokye and Afrane (2014:131) and Endashaw (2014:31), the entry requirements for traditional apprenticeships are many and varied for new entrants into the system. The entry requirements are generally low, few pass beyond lower secondary education and many have not completed primary education. Nevertheless, the entry requirements are not restricted by age, ethnicity or proof of literacy but are open to anyone who can pay the training fee. Furthermore, Rankin, Roberts and Schöer (2014:3) indicate that the arrangements for an apprentice to enter a period of training are mostly negotiated between the parent and guardian of the potential apprentice.

Taking into consideration the aforementioned entry requirements, it can be concluded that the traditional apprenticeship training is accessible to prospective trainees. The payment for the training is the responsibility of the parent, apprentice or guardian.

With regard to the contract of the traditional apprenticeship, Sonnenberg (2012:95) indicates that the contract consists of private contractual arrangements between a parent or apprentice and a master craftsperson who agrees to provide practical training in the workplace. The duration ranges from several months to three or four years. In addition, Anokye and Afrane (2014:131) state that, in some trades, a contract is signed between the master or mistress and the parents or guardians of the potential apprentice and the apprentice but, in many cases, agreements are verbal. This suggests that the verbal agreement between a parent or an apprentice and the master craftsman is an indication of the existence of a formal binding training relationship.

According to Sonnenberg (2012:95), traditional apprenticeship training is carried out in the workshop of a master craftsman in which there is a close link between training and production. Theoretical training complements the training at a public or private training centre. More importantly, on-the-job training allows for a gradual building up of informal networks with suppliers, customers, other business owners and apprentice masters. The apprentice also learns general business management skills like sourcing, pricing and contracting. However, the skills that the apprentices acquire are not certified in terms of the qualifications framework to ensure that the training meets business and industry standards. At the end of the training, the apprentices do not receive a certificate of competence. This means that traditional apprenticeship training is not an

accredited programme because it is only recognised in the immediate community where the apprentices learn their trade.

Anokye and Afrane (2014:13) contend that, in the traditional apprenticeship, the master plays the role of the supervisor and occasionally demonstrates a particular operation or directs an apprentice. The master instructs the apprentice by teaching him or her bona fide knowledge of the art which he has undertaken to teach. The master also oversees the conduct of the apprentice, giving him prudent advice and showing him a good example, and fulfilling the duties of a father towards him; in his character of master, he stands in loco parentis. This suggests that there is monitoring and the supervision of apprentices in the workplace, but this is done by the master and no external assessment is undertaken. However, this also indicates effective management of the traditional apprenticeship programme.

2.8.3.3 Strengths and weaknesses

- Sonnenberg (2012:95) contends that the main strength of traditional apprenticeship is its practical orientation, its self-regulation and self-financing. Its connection with future employment and generally lower entry standards make it attractive as a source of skills to disadvantaged youth;
- Sharing the same sentiments, Odoro and Naong (2014:2) emphasise that the traditional apprenticeship provides practical hands-on training with good prospects for employment after training.

Potential weaknesses of the apprenticeship programme as captured by Endashaw (2014:31) are that:

- Alhassan (2016:624) raises a concern that there is no specific time frame within which the training could be accomplished; and the training period may be very long ;
- Endashaw (2014:31) indicates that the traditional apprenticeship lacks certification.

2.8.3.4 Informal apprenticeship

According to Alhassan (2016:615), Billet (2015:21) and Hofmann and Okolo (2012:145), informal apprenticeships are embedded in an informal social structure,

local culture and traditions. The training is integrated into the production process and apprentices learn by working alongside the experienced craftsperson. The aforementioned explanation of informal apprenticeship indicates that the training is 'production-oriented'.

Scholars concur that the predominant source of recruitment of apprentices to the training is familial and social networking (Biavaschi, Eichhorst, Guilietti, Kendzia, Muraryer, Pieters, Planas, Schmidt & Zimmermann, 2012:70; Mensah & Mensah, 2012:14). The training is seen as part of a social reciprocity system. In addition, most of the apprentices are linked in one way or the other to the owners through either a friend or acquaintance and marriage.

On the other hand, Kwarteng et al. (2014:1) aver that in an informal apprenticeship programme an apprentice signs a written apprenticeship training contract or a contract is signed on his/her behalf by either parents or guardians. This contract binds both the apprentice and the master. In contrast, Alhassan (2016:615) points out that, although several arrangements and apprenticeship training contracts are in place, they are seldom adhered to. As a result, the apprentices are exploited by using them for household chores and working for extended hours ranging from 50-60 hours per week. Sometimes they receive pay while others do not receive any form of income. This suggests that there is a breach of contract and exploitation of the apprentices.

Regarding the curriculum, Schraven (2012:143) reveals that the curriculum of an informal apprenticeship programme lacks uniformity in training content, the absence of training manuals for reference, indefinite duration of the training and lack of certification. Biavaschi et al. (2012:69) elaborate that the informal apprenticeship training curriculum is based on a learning-by-doing strategy. Training is generally purely practically oriented with apprentices learning from observing the craftsmen at work in their trades and skills, for example, tailors, mechanics, painters, bakers, carpenters hairdressers and joiners. An apprentice takes part in the production processes of an enterprise in exchange for skills training by the master or senior employee. This implies that the training is non-accredited.

There are various ways of funding the informal apprenticeship in Ghana. Schraven (2013:143) and Endashaw (2014:31) accentuate that the master provides a 'training loan' or credit to the apprentice who repays it in the course of the apprenticeship through his or her labour input. The apprentices mostly rely on their parents or guardians for financing. Sometimes the apprentices receive an allowance from their masters, commonly referred to as 'chop money'. This money is paid on a daily or weekly basis. Informal apprenticeship programmes usually involve the payment of fees by the apprentice or his/her family either in cash or in kind. Therefore, it can be concluded that there are no formal funding mechanisms for the apprenticeship programme and, as a result of that, the apprentices must pay for their training.

2.8.3.5 Strengths and weaknesses

- **Strengths**

Biavaschi et al. (2012:69) stress that the strength of informal apprenticeship in Ghana is that the school dropouts can access informal apprenticeship training. Informal apprenticeship is also a critical link to work and provides the unemployed school leavers with employable skills.

- **Weaknesses**

Endashaw (2014:3), Alhassan (2016:618) and Schraven (2012:143) indicate that in as much as learning-by-doing creates a relaxed learning environment, lack of consistency in the teaching and learning approaches means that it might be difficult to compare two apprentices who have graduated from the same trade but have been trained by two different masters because there is no structured approach to learning. Informal apprenticeship training is neither systematic nor structured to guide the master craftsmen and apprentices.

Having discussed the strengths and weaknesses of apprenticeship programme in Ghana, the next section briefly summarises the similarities and differences between managing the apprenticeship programme in the selected countries.

2.8.4 Similarities and Differences in Managing the Apprenticeship Programme in the Countries Studied

Some similarities and differences can be observed when comparing apprenticeship programmes in the countries studied.

2.8.4.1 Similarities

The management of the apprenticeship training in the countries studied involved stakeholders with a stake in skills development. Couldrey and Loverder (2016:7) and Pfeifer (2016:11) agree that these stakeholders include employers, industries, registered training organisations, government, chambers, parents or guardians, master craftsmen, trade unions and employee associations.

Similarities that exist in the labour market are noted by Axmann and Hofmann (2013:20). In formal apprenticeship training in Germany, Australia and Botswana and in informal and traditional apprenticeship in Ghana, the apprenticeship training has direct market relevance in terms of the acquired skills; it makes use of the workplace as a learning environment; imparts core skills alongside technical skills; inducts apprentices into the business culture and networks; and, therefore, facilitates the transition to the first job. The other similarities are observed by Anokye and Afrane (2014:131) in the supervision of the apprentices at the workplace where it is carried out either by the master, supervisor or the regional chambers and industry.

2.8.4.2 Differences

There are significant variations among countries studied with regard to the amount of funding the apprenticeship training receives. In Australia, for instance, Cooney and Long (2010:20) and Dumdrell and Smith (2016 :163) observe that the government covers practically all the costs of the formal, off-the-job training delivered to apprentices and trainees even when a training provider delivers the training. In Germany, Wyman (2012:11) assert that the firms sponsor the apprenticeship training. Endashaw (2014:31) and Schraven (2013:143) state that the traditional and informal apprenticeships training in Ghana are self-financed. According to Ngati (2015:34) in

Botswana, a trainee pays 5% of the cost of their training as a form of cost recovery while the government pays 95%.

Alhassan (2016:618), Endashaw (2014:3) and Schraven (2012:143) posit that a basic curriculum in the traditional and informal apprenticeships in Ghana is not developed. Moreover, the craftsmen and the apprentices do not have the theoretical training as the transfer of skills and knowledge occurs through observation, imitation and on-job experience. In the traditional and informal apprenticeship in Ghana there is no structured approach to training. Therefore, the lack of consistency in the teaching and learning approaches means that it might be difficult to compare two apprentices who have graduated from the same trade but have been trained by two different masters.

In Germany, the Vocational Training Act of 2005 regulates all aspects of the dual apprenticeship system. According to Pfeifer (2016:13) and Poulsen and Eberhardt (2016:15) the Apprenticeship and Traineeship Act of 2001 regulates the apprenticeship training in Australia. The Acts determine the role and functions of the stakeholders, governance and the management of the apprenticeship programme. However, Anokye and Afrane (2014:1) and Sonnenberg (2012:95) indicate that, in Ghana, traditional apprenticeship training is not legislated but is regulated by an agreement between the master craftsperson and an apprentice, guardian and parent. This agreement is mostly verbal and not enforceable. Kwarteng et al. (2014:1) point out that in informal apprenticeship training in Ghana an apprentice signs a written training contract with the master craftsperson which is legally binding.

The next section provides synthesis of how the apprenticeship programme is managed in developed and developing countries.

2.9 MANAGING APPRENTICESHIP PPROGRAMMES IN DEVELOPED AND DEVELOPING COUNTRIES: A SYNTHESIS

This section discusses major differences and similarities in the management of the apprenticeship programme in the countries described in the preceding section: Germany, Australia, Ghana, and Botswana. The purpose of this discussion is to gain some international and local perspectives and the bearings they have in South Africa.

2.9.1 Differences

In Germany, the stakeholders such as the employers, chamber of commerce, works councils (collective bargaining of social partners), trade unions, social partners and employers' federations are responsible for various roles in the management of the apprenticeship programme beyond the narrow sphere of state regulation. This is different from South Africa. Allais (2012:632) and Mgidi (2014:99) note that in South Africa there is role confusion, fragmentation, poor governance and mismanagement among stakeholders involved in the management of the apprenticeship programme in TVET colleges. The government of South Africa is too involved in TVET. For instance, the government plays a central, almost all embracing role in the Vocational Education and Training (VET) while participation of other parties such as business and commerce is minimal. In Germany, the firms must prove that they have the equipment and facilities to provide the apprenticeship training prior to the commencement of the training, unlike South Africa where the TVET colleges are funded to recruit and train apprentices in the campus but use old tools and obsolete equipment that compromise the quality of the training.

The German dual apprenticeship system is funded differently. The state bears the cost of vocational school-based training and the cost of one to two days a week full-time education, and training costs are paid by the regional authorities, while the cost for external assessment and examinations is borne by the Chambers of Commerce. The apprenticeship training (on-the-job training) is firm-sponsored. The employer bears all the costs of the firm-based apprenticeships including training of staff, providing learning material, equipment, apprentices' allowances and wages. In South Africa, there are two types of funding models. Firstly, the funding for NATED Report 191 or 'N' courses and the National Certificate Vocational (NC(V)) programmes. These programmes are classified as Ministerial programmes and the government subsidises 80% of the approved programmes. Toefy (2011:43) and Zungu (2015:18) state that the government places a cap on college level fees to remain at 20% of the total programmes and has established a national bursary scheme to reduce the 20% burden of the college fee. In some instances where the college experiences a shortfall, the profit generated from the apprenticeship training would be utilised to make up that

shortfall. Secondly, the funding of the occupational programmes (apprenticeships, learnerships, and skills programmes) is legislated through the SDL Act of 1999. This Act obliges all registered employers with the South African Revenue Services (SARS) who has an annual payroll in excess of R500 000 to contribute 1% of their total payroll to the NSF (Skills Development Act of 1998, sec 3(1)b). These levies are paid over to the SETAs who then disburse them to training providers, including TVET colleges, to train employed and unemployed learners through apprenticeships, learnerships, and skills programmes.

This means that the South African government is not solely responsible for funding the occupational programmes. Although industry contributes 1% of their total payroll to the training fund, the employers are still reluctant to participate as a stakeholder in the management of the apprenticeship programme.

What is critical about the funding of the apprenticeship programme is that it is not necessary for the college that offers the accredited apprenticeship training to wait for the SETAs or NSF to advertise the application for funding through the discretionary grant before public TVET colleges and private providers can apply. The approval of the application is at the discretion of the SETA or NSF.

Krishnan & Shaorshadze (2013:6) and Wildelband (2013:7) note that the major difference between Germany and South Africa explored in this thesis includes the curriculum. The apprenticeship curriculum in Germany is characterised by a duality of training sites or parallel on-site training. This means that there is school-based training where the apprentices learn theory on occupation skills, and workplace learning where occupation-specific firm skills are taught. This is done on a weekly basis by sharing week days. The evaluation of the apprenticeship curriculum is the joint responsibility of the stakeholders, unlike in South Africa where the apprentices spend 30% of the duration of the training at the institution depending on whether the training is of three years or four years' duration. At the institution, the apprentices learn theory on occupation skills. The apprentices are expected to spend 70% of their time at the workplace learning practical skills. This is not possible because there is a lack of structured workplace learning. The colleges struggle to place apprentices because the employers are reluctant to take them into their workplace. The apprenticeship

curriculum is outdated and the apprentices are expected to be compliant with the technological changes at the workplace.

In Australia, school-based apprenticeships exist and can lead to a qualification. This means that the learners are able to articulate to higher education. Unlike South Africa, apprenticeships are offered by the public TVET colleges and private providers but not by schools. This means that there are no apprenticeship feeder schools. The learners are recruited into apprenticeship training after having completing NATED or Report 191 N2 courses, learnerships, skills programmes, and internships or have achieved recognition of prior learning. The universities are reluctant to develop apprenticeship programmes and do not accept apprenticeship qualifications as entrance qualifications for degrees, certificates or diploma courses at tertiary level.

It can be concluded that the post-school education provisioning in South Africa does not function as a coherent and coordinated system. Articulation of post-school education from TVET colleges and other providers to higher education is non-existent.

The following section discusses the prescribed management of the apprenticeship programme in South Africa TVET colleges.

2.10 THE PRESCRIBED MANAGEMENT OF THE APPRENTICESHIP PROGRAMME IN TVET COLLEGES

The management of the apprenticeship programme in TVET colleges in South Africa is done on three levels, namely, national level (DHET), provincial level, i.e. Provincial Artisan Development Steering Committee (PADSC), and local level (TVET colleges).

2.10.1 Management of the Apprenticeship Programme at National Level (DHET)

The management of the apprenticeship programme in the TVET colleges involves multiple stakeholders who are expected to play a pivotal role in the success of the programme. Abrahams (2013:14) explains that, at the national level, the apprenticeship programme is managed through the DHET and the stakeholders. The Minister of the DHET is the main stakeholder on behalf of the government and a custodian of the apprenticeship programme. These stakeholders are categorised into external and internal stakeholders.

Onduru (2012:22) underscores that Freeman coined the concept ‘stakeholder’ when he first popularised it in the management theory he formulated in 1984. At that time, Freeman, a scholar in the field of management, provided what was later referred to as the ‘traditional’ definition of stakeholders. This defines stakeholders as any group or individual who can affect or is affected by the achievement of the organisation’s objectives. However, it appears that there has been a misunderstanding of the concept over the years. Subsequently, Freeman provided this definition of stakeholders as “those groups that are vital to the survival and success of the corporation”. Furthermore, Freeman expanded the stakeholder theory by arguing that consideration of the perspective of the stakeholders themselves and their activities is also important with respect to management. In this study, stakeholders refer to DHET, SETAs, NAMB, QCTO, INDLELA, and the college Senior Management Team (SMT) who support the management of the apprenticeship programme in TVET colleges in South Africa.

According to Adenson and Diaze (2010:164) are two groups of stakeholders that influence the organisations internally and externally. The external stakeholders include but are not limited to government regulators, labour unions, society in general represented by non-governmental organisations, and shareholders. On the other hand, the internal stakeholders include management and non-management employees and are critical allies to the success or failure of any solid strategy.

Against this background, the next section identifies the external stakeholders and the pivotal role they play in the management of the apprenticeship programme at national level.

2.10.2 The Role of External Stakeholders at National Level

While all stakeholders are essential in the management of the apprenticeship programme at the national level, this study did not have the scope to discuss all the stakeholders. Therefore, five groups of external stakeholders that were most relevant to this study were identified. These stakeholders were SETAs, NAMB, and Quality Council for Trades and Occupations (QCTO), INDLELA and the verifiers (external moderators). They were selected because they were the main stakeholders in South African public TVET colleges. The SETAs, for instance, support the colleges with

funding through discretionary grants for apprenticeship programmes. NAMB, INDLELA, QCTO and verifiers (external moderators) take care of the quality assurance and the coordination of the apprenticeship programmes in South Africa.

2.10.2.1 Sector Education and Training Authorities

The SETAs were established in terms of SDA (Act 97 of 1998) as amended to manage the skills development needs of the country. According to Abrahams (2014:14) and Allais (2012:633) the SETAs are stakeholder entities comprise representatives from organised employers, organised labour, communities, and government departments. Allais (2012:633) and Hauschildt and Brown (2011:252) state that the SETAs are funded from the SDL, which is used to encourage learning and development in South Africa. All employers whose turnover is greater than R500 000 per annum contribute a skills levy of 1% of their remuneration costs, of which 80% goes to the SETA, and 20% to the NSF. One of the primary objectives of SETAs is to collect the skills levy from employers within the sector in terms of the provisions of the SDA of 1998. The SETAs make money available to employers in the sector for education and training. This money goes to employers, training bodies, and bursaries for use towards accredited occupational qualifications.

Abrahams (2014:21) and Ruiters (2015:18) argue that, since inception, the SETAs have received ongoing negative criticism in the public domain. In particular, the SETAs have operated amidst a number of challenges including poor governance and mismanagement, a lack of internal capacity, inefficient use of public resources, inadequate systems and processes and a changing legislative landscape. In the same vein, Marock (2011:37) reveals the following challenges facing the SETAs:

- The scope of the SETAs remains too broad, with an overly complicated mandate and unrealistic expectations.
- The programmes of the SETAs do appear to be addressing the skills shortage or enabling growth and job creation but are insufficient in areas where business does not step in, and many learnerships (apprenticeships) are not adequately structured or at too low a level.

- Monitoring and evaluation systems of many SETAs undermine their performance and ability to create ‘value for money’.
- The quality assurance systems of SETAs do not lead to improved performance.

Dr Blade Nzimande also emphasised the underperformance of the SETAs. In his speech when addressing the chairpersons of the SETAs and ministerial appointees and the SETA Board Dr Nzimande stated that in the 11 years of their existence the SETAs have become known among the general public more for the problems in their governance and management than what they were established for, which is skills development. The former Minister further asserted that there are 21 skills development systems, with every SETA operating as an independent entity with its own systems, policies, constitution, model of skills development and training delivery, and utilisation of funding (Nzimande, 2011). The Minister’s speech reflects lack of and/or poor governance and management structures in the SETAs that need urgent intervention. Therefore, it could be concluded that the SETAs are incapable of performing their duties effectively and efficiently.

However, Grewe, Upere and Rust (2012:11130) the SETAs in terms of the SDA have various roles to perform. The SETAs must implement their sector skills plan, promote apprenticeship and register apprenticeship agreements with the DoL. The SETAs also acquired accreditation to function as an Education and Training Quality Assurance (ETQA) body.

The SETAs have additional responsibilities in their sectors. Erasmus, Loedolf, Mda, and Nel (2013:98) and Visser (2012:22) note some of these responsibilities which include promoting learning programmes and identifying work places for practical work experience. The SETAs support the development of learning materials and improve the facilitation of learning. They also register mentors, coaches and assessors, education and training providers and workers, and monitor education and training provision in the sector as prescribed by QCTO.

In support of managing the apprenticeship programme, Services SETA (2016:1) indicate that the SETAs carry out capacity-building in the TVET colleges. The SETAs organise workshops and conferences. The SETAs accredit training providers and

evaluate programmes, approve the management capacity of the apprenticeship and the agreed budget for the implementation of the Business Plan.

2.10.2.2 National Moderating Body (NAMB)

Another stakeholder that plays a critical role in the management of apprenticeship programmes is the NAMB. According to DHET (2012:2), DHET (2014:5) and Visser (2012:21), the NAMB is progressively implementing section 26a (1) and 26d of the SDA.

This transition was implemented in 2014 pending the completion of the final trade testing regulations. It is only applicable to all persons who commence an artisan learning programme or apply as a non-contracted learner for a trade test after 28 July 2014. Therefore, the establishment of NAMB suggests that there would be a synergy between DHET and TVET colleges in the management of the apprenticeship programme.

In supporting the management of the apprenticeship programme in TVET colleges, the NAMB performs some of the following legislated responsibilities as reflected in section 26(d) of the SDA:

- It coordinates artisan development in South Africa.
- It develops and manages the implementation of the artisan development policies.
- It monitors the performance of accredited artisan trade centres.

2.10.2.3 Quality Council for Trades and Occupations (QCTO)

The QCTO was established to perform its functions as outlined in the SDA and the NQF Act. The QCTO is officially listed as a schedule 3A Public Entity as per section 26(G) (1) of the SDA (DHET, 2011:106). In managing the apprenticeship programme in TVET colleges, the QCTO performs the following duties:

- It performs the functions related to managing the apprenticeship programme as set out in Chapter 6C (section 26H, 26F and 26) of SDA.
- It provides accreditation of occupational programmes and monitors the trade test centres.

- It monitors and assures the quality of trade tests and trade testing system

2.10.2.4 Institute for the National Development of Learnerships Employment Skills and Labour Assessment (INDLELA)

This institute is located at Olifantsfontein and holds a database on all individuals who have applied to do trade tests and who were assessed and certified through INDLELA.

The INDLELA is responsible for managing the apprenticeship database. However, it emerged from the Parliamentary Monitoring Group meeting held on 22 February 2011 that INDLELA has been managed as a stand-alone, almost autonomous entity of the DoL.

Some of the problems that emerged came about because of the level of autonomy that it had been given. Like some of the SETAs, INDLELA experienced allegations regarding impropriety and mismanagement. It is worth pointing out that even after the transfer of operational functions from the DoL to DHET in 2009, INDLELA continued to be supervised by the DoL while the issues of leadership and financial mismanagement were being addressed. This impacted negatively on apprentice training as there was no proper monitoring.

Taylor (2011:42) also claims that there is no central database available publicly. The data is collected separately by the DBE and DHET, each of the SETAs and by SAQA. The process of collection, analysis and utilisation of data within the TVET colleges in South Africa at present is fragmented. These data weaknesses impact on the reliability of data that the colleges can provide. The challenges in data management at college level emerge from a number of factors, including the variable use of Education Management Information Systems, poor connectivity between campuses and central offices, weak administration capacity and human error.

More importantly, data management has operated in the absence of clear standards for best practice. It can be concluded that, because of the weak management of the apprenticeship database, TVET colleges experience challenges of compiling statistics of the apprentices and the artisans trained.

2.10.2.5 Verifiers (external moderators)

Another stakeholder that plays a part in the management of the apprenticeship programme is the verifier. According Nel (2011:55) in managing the apprenticeship programme, the verifiers' work is framed and moderated by the ETQAs and the SETAs. In particular, the verifiers check whether the assessment meets the principles of proper assessment and ensures that the assessment is carried out according to agreed guidelines. The other role of the verifiers is to ensure that moderation of assessment of learning outcomes described in the standards and qualifications registered on the NQF is fair, valid and reliable.

2.10.2.6 The role of the external stakeholders: A synthesis

The role of the SETAs is different from the German dual apprenticeship system but similar to the Australian apprenticeship system. In Germany, the apprenticeship training is firm-sponsored while in South Africa funding comes from the SETAs and the NSF, similar to the Australian apprenticeship system where the funding is done by two agencies, the Group Training Organisations (GTOs) and AACCs.

In Germany, the stakeholders play a prominent role in managing the apprenticeship programme, unlike in South Africa where the performance of the SETAs has been patchy and in many cases has not met expectations. The quality assurance functions are very complex, and there is no clear evidence that SETAs have improved the quality of learning that is taking place in the various sectors. In the main, SETAs are beset by role conflict, mismanagement, poor governance, and lack of capacity, hence they were reduced from 23 SETAs to 21 SETAs with six proposed new SETAs being amalgamated into the existing SETAs, and some of the SETAs were placed under administration by the former minister of the DHET. It appears that the DHET should prioritise the solving of various problems facing the SETAs, and redefine, realign and restructure the role of the SETAs through legislative steps in order to strengthen them and to enable them to be more effective in addressing the needs of post-school education and training.

The NAMB is different from the agencies studied in developed and developing countries. One of the responsibilities of NAMB, in terms of the SDA, is to monitor the

performance of the accredited artisan centres, coordinate artisan development in South Africa, and develop and manage the implementation of the artisan development policies. Since its inception, the NAMB has not shown much progress. The TVET colleges still experience a backlog of trade test certificates. The process of recommending the certification of artisans to the QCTO is tedious.

There is similarity between Germany, Botswana and South Africa with regard to quality assurance in the management of the apprenticeship programme. In Germany, quality assurance is done by the Chambers which intensively monitor quality training, curriculum implementation, examinations, and the implementation of the apprenticeship programme. The management of these Chambers reflects good governance. In Botswana, the BOTA is a functional body responsible for and maintaining the NCQF as well as coordinating the education, training and skills development quality assurance system. In South Africa, the QCTO was established in 2010 to developed new occupational programmes that would be responsive to the needs of the industry. These programmes were to replace the outdated Report 191 Engineering and Business Studies. The QCTO was also mandated to monitor quality assurance in the management of the apprenticeship programme. Terblanche (2017:178) asserts that one of the aims of the QCTO is to streamline the quality assurance of all occupational programmes which means that this function will fall away from the ETQAs currently linked to the various SETAs. Unfortunately, after eight years, not much progress has been registered. The process of accreditation which includes the accreditation of programmes, facilitators, learning materials, assessors, moderators and verifiers is extremely tedious and further exacerbated by the different rules from various SETAs for the variety of occupational qualifications registered. The researcher suggests that the DHET should assist the QCTO to accelerate the development of new programmes otherwise the TVET colleges' apprentices, artisans and 'N6' graduates will continue being denied access to higher education programmes.

With regard to data collection and management, Gewer (2012:6) points out that Australia established the National Centre for Vocational Education Research (NC(V)ER) and the Australian Bureau of Statistics (ABS) as key organisations responsible for collection and management of Vocational Education and Training

(VET) data. The Australian VET Management Information Statistical Standard (AVETMISS) provides a national framework for the consistent collection and dissemination of VET throughout Australia. The AVETMISS specifies what information will be collected, timing frequency of collection, classifications to be applied to describe the information that is collected and data formats.

It can be concluded that learner record data is important because it is intrinsically linked to funding and enrolment planning. Without accurate tracking and learner progress, the TVET colleges would be unable to accurately project the movements of learners through the colleges. This impacts on space, planning around resource utilisation, operational budget plans and staffing requirements, and achieving the target as stipulated by the NDP that by 2030 the TVET colleges should have produced 30 000 apprentices.

The role of the verifiers (external moderators) compared to the role of other stakeholders in developed and developing countries is confined only to checking whether the assessment meets the principles of proper assessment and ensuring that the assessment is carried out according to agreed guidelines. The other role of the verifiers is to ensure that moderation of assessment of learning outcomes described in the standards and qualifications registered on the NQF is fair, valid and reliable.

2.10.3 Management of the Apprenticeship Programme at Provincial Level

At the provincial level, the management of the apprenticeship programme is carried out in the nine provinces of South Africa. The DHET signed the Memorandum of Understanding (MoU) with the public TVET colleges. More importantly, the MoU establishes PADSC in each province.

2.10.3.1 The Provincial Artisan Development Steering Committee (PADSC)

The (DHET MoU, 2015) outlines the duties of the PADSC, the Chief Directorate, INDLELA, and the TVET colleges. For the purpose of this study, the following duties related to the management of the apprenticeship programme are discussed:

The Chief Directorate: National Artisan Development ensures that policies and guidelines as applicable to each TVET college and the Provincial Steering Committee

are developed, monitored and evaluated. Each TVET college in the province coordinates and implements a multi-stakeholder provincial artisan development workshop once a year at a TVET college in the province on a rotational basis. This means that all nine PADSCs converge once a year to share ‘good practice’ of managing the apprenticeship programme in their respective provinces. Therefore, the establishment of PADSC suggests that DHET wants to improve the quality of managing the apprenticeship programme(DHET MoU, 2015).

The PADSC is a different structure from the other countries studied. The PADSC was established to share best practice within colleges that offer apprenticeships and within provinces. There are provinces with only one college that offers the apprenticeship training but other colleges are also members of PADSC and occupy positions on the board even if they do not offer apprenticeships in their respective colleges. This renders the PADSC ineffective as it is run by people with limited or no knowledge of apprenticeship training.

Having discussed the management of the apprenticeship programme at the provincial level, the next section discusses the management of the apprenticeship programme at TVET colleges.

2.10.4 Management of the Apprenticeship Programme in TVET Colleges (Local Level)

Managing the apprenticeship programme in TVET colleges involves internal stakeholders who are expected to play a pivotal role in the success of the programme. The relationship between stakeholders can be complicated and role clarity needs to be addressed.

2.10 4.1 Internal stakeholders

In this study, internal stakeholders are all those individuals or groups who participate in the daily activities of the apprenticeship training. These stakeholders are mainly found in the college at central office/corporate centre or campus that is directly linked to the apprenticeship programme. The college SMT consists of the principal, the deputy principal: academic service, the deputy principal corporate service, the deputy

principal finance or chief financial officer, the deputy principal innovation and development, and the deputy principal registrar. For the purpose of this study, only the principals and the deputy principals: academic service, programme managers, and campus managers/project managers of the campus offering the apprenticeship training and the lecturers facilitating apprenticeship programme were selected as internal stakeholders responsible for managing the apprenticeship programme in the TVET college.

Principal

According to the Mgidi (2014:67) the principal is responsible for putting into operation the national TVET strategy that is inclusive of artisan development and apprenticeship training. The principal ensures that linkages between DHET, industry and the SETAs are well managed. The principal also plays a vital role in conceptualising the project and managing the apprenticeship. In a nutshell, the principal is responsible for the implementation of instructional leadership in the college.

In a case where the college delivers the apprenticeship as well as conducting the assessment, it must have an approved assessment system and processes accepted by the relevant ETQA. In managing the apprenticeship programme, the principal is responsible for the provision of resources and effective management of the curriculum. More importantly, the principal must establish a healthy relationship between the college and the stakeholders. The principal should also attend external and internal stakeholders' forums. This implies that the principal is the main stakeholder in the management of the apprenticeship programme in his or her college.

Deputy Principal Academic Service

The deputy principal academic service is responsible for three main programmes: NC(V), NATED or 'N' courses as the programme is popularly known, and the occupational programmes (skills, learnerships, and apprenticeship programmes).

In managing the apprenticeship programme in the TVET institutions, the deputy principal academic service performs the following roles**:**

- Manages the apprenticeship programme in line with the strategic objectives of the DHET and the college's strategic plan.
- Supervises, monitors, and evaluates the campuses offering the apprenticeship training.
- Coordinates the stakeholders' meeting.
- Coordinates the preparation of examination for all programmes involving assessment (summative and trade tests for the apprentices) (DHET, 2016:23).

The role of the deputy principal academic suggests that he/she is equally a prominent stakeholder in the management of the apprenticeship programme. Other key stakeholders in managing the apprenticeship programme in the TVET colleges are the programme managers and campus managers/ project managers. These stakeholders are the middle management. From the middle management, only the programme managers responsible for the occupational programmes (skills programmes, apprenticeships, and learnerships) and the campus managers/project managers in charge of the campuses' training apprenticeship training were selected. The roles of these stakeholders are discussed as follows:

Programme Manager

The programme manager is best positioned to determine the skills required by the learners. This person's main function is to plan, organise, lead, control, and evaluate the apprenticeship training activities in the TVET college.

According to Marx (2012:32), Jooste-Mokgethi (2013:56), Vuselela TVET College (2013:1), and Marx (2012:930), the programme manager coordinates the apprenticeship programme and ensures quality training and manages the implementation of the apprenticeship programme. The programme manager also assumes the role of the mentor in which he/she visits the workplace learning to monitor, support, counsel, and motivate the apprentices. The role of the programme manager suggests effective management of the apprenticeship programme.

Campus Manager

According to Vuselela TVET College campus manager's job description (2013), the campus manager performs the following roles related to the management of the apprenticeship programme:

- Monitoring and supervision of the lecturers.
- Visiting the lecturers and apprentices in the workshop and monitoring progress.
- Coordinating staff meetings to discuss and evaluate the curriculum.
- Managing the day-to-day activities of the apprenticeship programme.

The role of the internal stakeholders in managing the apprenticeship programme at TVET colleges has been outlined. However, it can be concluded that these stakeholders are not effectively executing their roles and responsibilities in the management of apprenticeships. In this regard, the NDP highlighted the reality that the sector was 'not effective', 'too small' and the output of quality is poor.

The Green Paper for Post-School Education and Training (DHET, 2012:20) also stipulates that the TVET colleges are characterised by low throughput rates, poor financial management, a limited programme qualification mix (PQM) with insufficient programmes relevant to local communities and industry, and inadequate lecturer qualifications with industry-linked experience.

In recognition of this challenge, Powell (2013:67), Blom (2016:48), NSDS and Allais (2012:633) indicate that a range of interventions was implemented to deal with them. These include, among others, recapitalisation of FET colleges in 2005, the establishment of the SETAs, and the introduction of NC(V). Various legislative interventions such as the FET Act and the FET Colleges Amendment Act were also put in place, which transferred FET colleges from the control of the provincial administration to the DHET.

Having discussed the management of the apprenticeship programme in the TVET colleges in South Africa, the next section discusses the introduction of change management to enable the external and internal stakeholders to cope with change.

2.11 INTRODUCING CHANGE MANAGEMENT TO ENABLE THE EXTERNAL AND INTERNAL STAKEHOLDERS TO COPE WITH CHANGE: A SYNTHESIS

According to Voehl and Harrinton (2016: 4) change management is a disciplined framework for driving business results by changing behaviour. It entails managing the effect of new business processes and changes in organisational structure or culture. Ng'ong'o and Alang'a (2015:1) define change management as the process of taking a planned and structured approach to help align organisation with change. It involves working with organisation stakeholder groups to help them understand what change means for them, helping them sustain the transition and working to overcome any challenges involve. These definitions imply that change management is a planned process that involves all organisation stakeholders with the aim of improving the organisation by changing the of the employees, the structure and the operation of the organisation.

Skelsey, King, Sidhu and Smith (2014:63) describe a stakeholder as any individual, group or organisation that can affect, be affected by or perceive it to be affected by a change initiation. A stakeholder can be internal or external to the organisation. Taking the aforementioned description of stakeholder into consideration, the key stakeholders in this study stakeholders include the Department of Higher Education and Training which is the custodian of the apprenticeship programme, TVET colleges, SETAs, lecturers, trade unions, employers and workers unions, and the learner representative councils.

Terblanche (2017: 211) observes that change has become a constant feature in the TVET college sector since 1995. The TVET college sector is predominantly affected by political and economic changes. Through the passing of multiple pieces of legislation, some changes were implemented, while others were not. It is worth noting that change management strategies do not readily exist in TVET colleges in South Africa. In light of this problem, change management strategies are sorely needed in order to manage future curriculum challenges, implementation of new legislation and policies and institutional change, in particular stakeholders' engagement. The following are some of the strategies that could be implemented to enable the stakeholders to cope with change:

2.11.1 Identifying and Segmenting Stakeholders

Cameron and Green (2015:357) explain that in this activity the change manager should identify all stakeholders and determine which are most important to apportion the considerable time liaising with them.

In addition, Skelsey et al.(2014:65) argue that for change to be successful in an organisation or agency, early and sustained engagement with stakeholders is essential. This implies involving individuals, groups and organisations who have an interest in, or some influence over, the change. Stakeholders can include both internal and external interests and influences. The objective is to get the maximum possible agreement with, and support for, the change. The effective change manager should seek the views of various stakeholders, interests, and priorities. It is also important to identify and understand the relative power and influence of different stakeholders at the very beginning of the change process. When initially identifying stakeholders, a key factor is the creation of the vision statement for the change initiative. At this stage, the change manager should work closely with managers and staff at all levels within the aforementioned agencies.

2.11.2 Stakeholder Mapping and Strategy

According to Skelsay et al.(2014:65) stakeholder mapping is used to analyse the stakeholders identified in the change initiative to determine how best to manage communication with them. Mapping allows stakeholders to be analysed from a variety of different perspectives, including levels of power, interest and commitment to change. It also identifies levels of trust and agreement between the change effort and each stakeholder, and the relationship among stakeholders. Newton (2011:75) asserts that after having analysed the stakeholders, action can be planned to utilise the capabilities of these stakeholders who support the change, and mitigate any work from those opposing it.

2.11.3 Managing Relationships and Mobilising Stakeholders

Managing relationships and mobilising stakeholders is defined by Skelsey et al.(2014:65) as the process of achieving and sustaining the engagement and active

participation of stakeholders and stakeholder groups throughout a change initiative to ensure its long term success. The effective change manager seeks stakeholder opinions on the change and how it will affect them, their experience, team, business function(s) and relationships, building trust and confidence. According to Skelsey et al. (2014:65) and Cameron and Green (2015:357), the effective change manager should listen carefully to stakeholder interests, needs and concerns and responding openly and honestly to questions about the change and impact, making use of available communication technologies, including the intranet micro-site and collaboration tools to encourage dialogue and to facilitate the sharing of ideas and information. He should also identify and engage with opinion leaders, those who have power or influence over others, and make them advocates or champions, thereby reducing the influence of those who do not support change.

2.11.4 Focus on communication to engage stakeholders during change management

A communication strategy helps guide communication activities through the change process and ensures that the change manager is actively engaging all the stakeholders. Both internal communication (employees) and external communication (stakeholders) should run simultaneously. The change manager should offer support to those that may be affected, including access to counselling services. Most important, the change manager should be transparent with communication and should communicate often.

The role of the TVET college principal as the internal stakeholder in managing the apprenticeship programme is to ensure that the purpose and vision of change is well defined and communicated to all the stakeholders. Terblanche (2017:219) supports this assertion that clearly , college leaders have to have knowledge of industry to influence curriculum change and build partnerships. At the same time, it is expected of them to have empathy and interpersonal skills to support the change process and the staff who are at the coal face of the change. Furthermore, the college principal needs a suite of leadership competencies, such as strategic thinking, skills for financial management, people management and empowerment, a client orientation and

customer focus, skills for change management, and characteristics such as honesty and integrity to effectively lead the college.

Badenhorst and Radile (2018:5) single out the Principal leadership as a key mechanism for improving educational institutions but, surprisingly, research on instructional leadership seems to focus almost entirely on the importance of the principal in guiding school reform and improving students' achievement, neglecting the role of other players in managing educational performance. Furthermore, in an educational context, leadership works best when it is shared or distributed and the leader is more likely to succeed if he brings other people along into the same vison, enabling them to work together and trust one another. Within a distributed instructional leadership model, the principal is no longer the source of absolute authority. This implies sharing of power and decision-making and, therefore, at times the principal may not have either positional or expert authority. Having said that, the entire college management team including the deputy principal academic service, heads of department, programme managers and education specialists (senior lecturers) should work together collectively to create a positive climate where teaching and learning, implementation of curriculum and curriculum changes can take place.

Wedekind and Buthelezi (2016:78) argue that the public TVET colleges in South Africa are currently micro-managed by the DHET and have very little or no autonomy pertaining to issues such as the type of programmes on offer, funding, student fees and the development or reviewing of curricula. The White Paper for Post-School Education and Training (2013c:74) asserts that the intention to review and rationalise vocational programmes and qualifications should be led by both the DHET and the DBE. This means that major decisions regarding the TVET colleges rest with the national departments, without much participation at college and/or campus level. This authoritarian approach supported by an oversized bureaucracy results in the stagnation of change processes and the alienation of lecturers as professionals and critical role players in change management.

The campus manager of the TVET college plays a similar leadership role to that of a high school principal and is accountable to provide high-quality teaching and learning to improve student achievement, and ensures that all activities support the core

business. The campus manager's leadership role includes assessment; knowledge of the curriculum; monitoring and evaluating instruction; providing instructional support; providing resources; protecting instructional time; using data and monitoring student progress; making mastery of instruction more appealing to staff; and helping create a rigorous and supportive instructional climate where good teaching and learning can thrive.

Powell and McGrath (2014) and Wedekind (2009) cited in Kanyane (2016:116) argue that the voices of TVET practitioners (lecturers and campus managers) who are responsible for implementing and teaching the curriculum on a daily basis should be heard in terms of curriculum, namely relevance, complexity and articulation on the NQF. Furthermore, the inputs of lecturers as crucial implementers or agents of curriculum change should be recognised to ensure ownership of curriculum change. The engagement and involvement of lecturers in all the phases of curriculum development would empower them and have the potential to facilitate the acceptance of curriculum change rather than it being rejected.

The campus activities are over-centralised; even trivial issues that could be handled at a campus level are required to be dealt with by the central offices or corporate centres. Since campuses are the sites of training activities, campus staff are better able to attend to some issues than the staff at central offices or corporate centres.

Having discussed the introduction of change management to enable the stakeholders to cope with chance, the next section outlines the cost and benefits of the apprenticeship programme.

2.12 THE COSTS AND BENEFITS OF THE APPRENTICESHIP TRAINING

This section provides a brief overview of the costs and benefits of managing the apprenticeship programme. The first segment discusses costs and benefits of the apprenticeship training to the firms/employers, the second part presents the costs and benefits of the apprenticeship training to the apprentices, and the third leg discusses the costs and benefits of the apprenticeship to the government.

2.12.1 Costs of the Apprenticeship Training to the Firms/Employers/Colleges

Lerman (2014:3) posits that firms/employer incurs direct costs which include, among other things, apprentices' wages, and the wages of the trainer specialists for the time they oversee apprentices, compensation for food, travel costs or living expenditure and the costs of materials and additional space required for the apprenticeship.

The other costs incurred by firms, employers or colleges in the management of the apprenticeship programme are the recruitment and administrative costs. These costs include wage costs for administrative tasks and recruitment related to apprenticeship training and fees paid to the Chambers of Commerce (e.g. Germany) with regard to recruitment.

Bednarz (2014:26) argues that employers of apprentices experience a number of challenges. These challenges chiefly concern the recruitment of suitable apprentices because finding an apprentice is easy but finding a good apprentice is very difficult. Therefore, the above-cited costs imply that the management of the apprenticeship programme needs adequate funding.

2.12.2 Benefits of the Apprenticeship Training to the Firms/ Employers

Baldi et al. (2014:5) point out that smaller firms face positive net costs from training owing to more substantial relative costs of providing workspace for apprentices. The firms save costs by recruiting external skilled workers including time for integration and risk of hiring a person not known to the company. Furthermore, Keep and Relly (2016:29) argue that workplaces in smaller companies are not set up to deliver workplace training in the way envisioned by the government. This is as a result of lack of additional resources such as staff or time for employers to train apprentices. In addition, Ziderman (2016:15) asserts that financing schemes are being established in various developing countries, for instance, in Ghana. The purpose of this funding is to deal with the needs of micro-enterprises and informal businesses. These financing schemes are based on a subsidy usually from the government and donors rather than on levy grant approaches. In contrast, McIntosh, Wenchao and Vignoles (2011:5) argue that firms appear less willing to recruit new workers as apprentices because of the risk of poaching. This implies that the there is no guarantee that the firm/employer

would benefit from the apprenticeship programme because of the risk of training the workers that would then leave and take their enhanced skills to other firms.

2.12.3 Costs of Apprenticeship Training to the Apprentices

Bednarz (2014:18) indicates that the apprentices were concerned about the cost of travel to and from the various sites assigned to them by their employers.

2.12.4 Benefits of the Apprenticeship Training to the Apprentices

According to McIntosh, Wenchao and Vignoles (2011:10), apprenticeships constitute a significant route into employment and have a positive impact on wages, particularly in countries that have a dual system (Germany & Australia) where more than half of each cohort proceeds into employment via apprenticeship.

The benefits of the apprenticeship training are also noted by Woldetsakdik (2013:44) that they enables apprentices to get a trade. Moreover, job satisfaction can be considered as a reflection of the intrinsic reward associated with the trade. It provides many opportunities for working with different types of equipment and for learning new skills. It also creates right working conditions; provides opportunities to develop good social relations; provides opportunities to school leavers not to be idle; helps apprentice to be creative; and helps the community. In addition, Aximann and Hofmann (2013:19) underscore that for the purpose of livelihood development, an apprenticeship provides a first job that leads to career-long productive employment. The apprenticeship combines training with earning as well as open access to social security benefits.

The traditional apprenticeships held by many disadvantaged youths in developing countries cater for individuals who lack the educational requirements for formal training. In addition, Adams (2011:8) reports that in Ghana, for instance, the traditional apprenticeships increased the earnings of those without formal education by 50%. Therefore, it can be concluded that effective management of the apprenticeship programme benefits the apprentices by making them employable, self-employed and employed.

2.12.5 Costs of the Apprenticeship Training to the Government

Lerman (2013:22) argues that the costs of the apprenticeship training to the government are apparently less than in school-based TVET. Firstly, the apprentices spend less time in the training institutions. Secondly, government spending on equipment is reduced because the apprentices gain experience with suitable equipment at their workplace. The main cost of the apprenticeship lies in the costs associated with supervision. Furthermore, Bednarz (2014:30) maintains that supervision of apprentices at the workplace is critical because the role of the supervisor is to ensure that an apprentice receives appropriate practical skills. Therefore, it can be concluded that the employers who contribute towards the apprenticeship programme indicate commitment. Other employers should be encouraged to do likewise.

2.12.6 Benefits of Apprenticeship Training to the Government

Aximann and Hofmann (2013:19) highlight that governments benefit from the apprenticeship system in many ways. If employers train, it means that they share the cost of skills development. Compared to full-time institution-based training, apprenticeships are much more cost-effective, including when governments provide additional financial incentives for employers.

The next section concentrates on the issues and challenges in the management of the apprenticeship programme and the strategies to deal with them.

2.13 ISSUES AND CHALLENGES IN MANAGING THE APPRENTICESHIP PROGRAMME AND THE APPROPRIATE STRATEGIES TO DEAL WITH THEM

2.13.1 Weak Linkages and Partnerships with Industry

Dlamini (2014:25) argues that the FET colleges in their current form offer a narrow range of programmes in relation to the skills needs of business. This disjuncture leads to the production of graduates who possess a narrow set of skills that are not relevant to skills required by business. Accordingly, employers contend that many programmes offered by colleges are irrelevant and outdated. The equipment used to train learners is antiquated. In relation to this notion, Molz (2015:16) claims that industries are not

given the space to adequately participate in the development of the apprenticeship schemes particularly in terms of system and curriculum designs.

In some cases, industries are given a 'pro-forma' role with participation in some functional areas such as curriculum development but not with real decision-making powers. In addressing the delinking of colleges from industry, the NDP (The Presidency, 2011:287) suggests that the SETAs should play a more effective role in enabling these linkages by fostering relations between institutions of learning and work, and funding internships and other work exposure programmes.

2.13.2 Inadequate Workplace Training

The White Paper on Post-School Education and Training (DHET, 2013c:8) declared that workplace training and WIL must be a central part of the training system However, Mutereko and Wedekind (2015:12) indicate that there is lack of opportunities for work-based learning.

Another pitfall is that employers in South Africa are not obliged to provide workplace learning and integrate training as part of their business. Consequently, many students fail to complete their qualifications because they cannot secure workplace learning. This suggests that the government should start to act against employers who have capacity but disregard skills development legislation by not making their workplaces accessible for learning of the practical component.

In recognition of this challenge, the then Deputy Minister of Higher Education and Training met with Toyota South Africa in 2017. The purpose of the meeting was to forge a partnership between TVET colleges and the industry and to encourage the industry to open up their workspaces and turn them into training spaces for TVET college students and lecturers to acquire workplace exposure (DHET, 2017). The meeting indicates that the DHET is determined to address inadequate workplace learning by engaging with industry.

In South Africa, the employers are incentivised through the NSF. The benefit of this fund to the employer is that they can claim the tax back if they train their employees. The purpose here is to incentivise employers to support the national skills development

initiative and to empower and capacitate their employees through training. However, the public service is exempted from paying tax (RSA, 1999) which means that the private sector subsidises the public sector in terms of funding by means of the SDL. In addition, Malale and Gomba (2015:284) assert that another solution to remedy the challenge of workplace experience is for the DHET to encourage colleges to have partnerships with SETAs. Many colleges are running SETA-funded occupational programmes. The SETA programmes are believed to have significant labour market currency, their importance being that they are directly linked to employer needs and generally involve work placement as part of the programme, for example, and artisan development.

2.13.3 Shortage of Qualified Workplace Supervisors

Snell and Hart (2008:58) aver that a common complaint about the on-the-job training is lack of qualified staff to provide workplace training. In recognition of this challenge, DHET (2013:n.p), Stewart (2014:14) and Woldetsadik (2013:72) suggest that supervisors should play the role of mentors. A mentor in a workplace situation is the model person who is expected to guide the trainee or apprentice to acquire the skills of a job. In dealing with this challenge, the researcher suggests that the retired artisans be recalled to fulfil the function of a mentor while the TVET colleges and the employers collaborate to train mentors.

2.13.4 Lecturers' Qualifications

The current TVET college staff members have very different levels and types of qualifications. These qualifications range from those with formal teaching qualifications or degrees to those with trade qualifications or trade theory qualifications or industry credentials, but no teaching expertise, and vice versa (Blom, 2016:51). Similarly, Mokone (2011:28) claims that there are two cohorts of lecturers in TVET colleges. Firstly, the lecturers with industry experience have practical skills of workshop training but lack theoretical knowledge for classroom teaching. Secondly, the lecturers from teaching backgrounds have theoretical knowledge for classroom teaching but lack practical experience for workplace training.

Taylor (2011:47) adds that, until recently, there was no training base for FET college lecturers in South Africa, and no new qualifications available for lecturing staff. This implies that current teaching staff come from very different traditions and have very different skills that must be consolidated into relevant TVET qualifications. In addressing this challenge, Adendorf and Van Wyk (2016:3) point out that DHET should embark on capacity building of TVET college lecturers through learning programme.

This project has four developmental aims:

- To enhance the professional capacity and pedagogical competence of TVET lecturers;
- To build the capacity of universities to provide TVET colleges lecturers with accredited professional qualification;
- To develop a cadre of open learning content developers, managers, support staff, and young researchers; and
- To establish a sustainable national open learning management system for post-school education and training for TVET college lecturers.

Similarly, Patterson (2016:xvi) highlights that the DHET is developing professional level qualifications and a full-time qualifications structure for college lecturing staff. Furthermore, the colleges also monitor and support the underqualified and unqualified lecturers through the College Improvement Plan. This plan aims to raise levels of college lecturer qualifications. It can be concluded that the DHET strives to address lecturers' qualification by putting strategies and mechanisms in place.

2.13.5 Outdated Curriculum

Alliais (2012:3) argues that an ongoing problem in TVET colleges in South Africa is a lack of curricula for artisan training, despite the proliferation of new qualifications through the NQF. Malale and Gomba (2016:284) also note that stakeholders perceive that the curriculum offered at the TVET colleges is of low quality. The FET college sector's weak response to the needs and realities of the labour market is widely criticised. Similarly, Garraway, Bronkhost and Wickham (2015:5) argue that, in the workplace, the expectation is that students would be able to do the jobs given to them based on what they have learnt at the college. However, workplace supervisors have

indicated that the procedural instructional methods by the college are outdated. One supervisor remarked:

> *"The curriculum that I was taught a few years ago is still being used in the college without adjustments and I would love to see the curriculum get a total overhaul but whoever sets the curriculum must involve industry for the latest techniques and methods used."*

Clearly, the notions above indicate that TVET colleges produce apprentices of low quality. In dealing with the issue of outdated curriculum, Papier, Needham, Prinsloo and McBride (2016:87) suggest that the apprenticeship curriculum should be derived from the professional work the apprentices will be required to perform. More importantly, employers should be allowed to lead curriculum development because they know what is needed in a particular field.

2.13.6 Poor Quality Training

Kruss et al. (2012: xi) argue that there is the perception of lack of preparedness in critical skill areas. Some sectors such as the Manufacturing, Engineering-Related Sector Education and Training Authority (MERSETA) have raised concerns that the skills imparted are outdated and not keeping up with technological developments. For instance, the apprentices that qualified through the Accelerated Artisan Training route would still require up to two or more years of practical experience to be fully competent artisans.

To address this challenge of poor quality training, the DHET introduced four routes to be followed towards becoming a qualified artisan in South Africa. These routes are legislated in the amendment of the SDA.

2.13.6.1 Apprenticeship route

Gamble (2012:7); Janse van Rensberg, Visser, Wildschut, Roodt and Kruss, 2012:43) point out that in this route, a learner may register as an apprentice with a SETA for the NQF-registered artisan trade qualification. An apprentice spends between two to four years on a single apprenticeship contract linked to a competency-based modular learning programme that ends in a trade test.

2.13.6.2 Learnership route

A learner may register for a learnership programme with a SETA on an NQF-registered artisan trade qualification and spend two or four on multi-year learnership contracts linked to a competency-based modular learning programme that ends in a trade test.

2.13.6.3 Internship or skills programme route

In this route, a learner may have a relevant trade-related NC(V) qualification. A learner can register for an internship or skills programme with a SETA on an NQF-registered artisan trade qualification. A learner is required to spend a predetermined period in the workplace on a single internship or skills programme contract that ends with a trade test.

2.13.6.4 Recognition of prior learning (RPL) route

According to Gamble (2012:7) and Janse van Rensberg et al.(2012:7) a learner may register with the National Institute for Artisan Development as an RPL candidate on an NQF-registered artisan trade qualification. A learner is required to spend a predetermined period on a single RPL contract that ends in a trade test. The RPL contract will guide the learner in the compilation of a portfolio of evidence that is assessed before undergoing the trade test. In addition, in enhancing quality training, the DHET published Regulation 5 of the Trade Test Regulation 2014 to provide a single national artisan trade testing and certification system across all sectors; to enable access to trade testing; enabling improvement in the quality of trade testing and enabling a single standardised, efficient and effective trade testing monitoring and reporting system.

2.14 SYNTHESIS

The evolution of apprenticeship in South Africa cannot be divorced from the history of colonialism, slavery, and apartheid. Right from its incarnation, apprenticeship in South Africa was a coercive and exploitative relationship rather than a relationship between a master craftsman and a novice. With the abolishment of slavery in 1834, apprenticeship was used as an intervention to manage this transition, and slaves were indentured for the first time to their former owners. This was tantamount to what van

Schoor quoted by Wedekind (2013:39) termed the transition from ‘chattel slavery to wage slavery’. This implies that the apprenticeship system has evolved over time from when it was not regulated by the state to the point where the state got involved in regulating and shaping it.

With the rise of the National Party in 1948, the apprenticeship was structured around the discriminatory policies of the apartheid system that excluded blacks. The apprenticeship programme was infused in the ambitions of Nationalist politicians to create a modern economy as the basis of excluding blacks and protecting the privileges of white workers. This is evident when the National Party retained the legislation promulgated in 1920 such as the Industrial Conciliation Act (No 11 of 1924) which divided employees according to race and class. The Wage Act (No 12 of 1925) discriminates against gender and race and laid the foundation for discriminatory wages, and the Mines and Works Act (No 28 of 1926) reserved mine jobs for whites and coloureds without due consideration for black miners. In addition, the National Party intensified the measures to protect the interests of the whites by introducing the Bantu Education Act (No 47 of 1953) and the Bantu Self-Government Act (No 46 of 1959) which establish Bantustans known as ‘homelands’ and ‘self-governing national states’. It can be concluded that the apprenticeship training in the apartheid regime was designed to benefit only the white apprentices and the white employers with little benefits for the coloured and black population.

In the apartheid era, the management of the apprenticeship programme was characterised by lack of cooperation between different employers and various industries regarding the coordination of training. The training appears to have been done in a relatively uncoordinated and arbitrary manner. Most of the organisations trained apprentices mainly for their own specific needs or simply ‘poached’ trained apprentices by offering them better salaries and bigger perks. There was also little cooperation between the state and employers over optimal utilisation of training facilities and optimal output of trainees and consequently no coherent national strategy existed. The system of control over apprenticeship training was unstructured and sporadic. In many cases, inappropriate approaches to apprenticeship training were followed, leading to the production of artisans of a low standard. This is referred to as

‘sit-by-Nellie’, which means learning through observation that was mostly unsupervised and unstructured.

The new education and training dispensation under the new democratic South Africa did not focus on apprenticeship training. The assumption was that the traditional artisanal skills that were associated with the reputation of the apartheid system would not be required in the new economy. This assumption created not only the basis for undermining artisanal skills but also compounded the management of the apprenticeship programme in TVET colleges. This is evident when the apprentices continued to train under the Manpower Training Act (No 56 of 1981) section 13 and section 28 until the establishment of the Quality Council for Trades and Occupations (QCTO) in 2010.

The literature review assisted the researcher in getting deeper understanding of the phenomenon under investigation in selected countries studied regarding the management of the apprenticeship programme. The lesson learnt from selected countries reveals that combining institutional training and workplace learning enables the employers to match training to their needs and allows for relevant training that is innovative, responsive to labour market needs and leads to higher productivity, better working conditions and higher transferability of skills. However, in South Africa one of the stumbling blocks in the management of the apprenticeship programme has been the lack of coordination, planning and commitment on the part of the employers to avail the workplaces for practical purposes. The research holds the view that workplace learning is an experience-based learning environment which goes beyond the concept of traditional classroom and teacher environment and fosters the use of on-the-job training through coaching and mentoring. The researcher is also mindful of the fact that there are challenges pertaining to both institutional training and the workplace learning but the purpose of the workplace learning is to offer the necessary support and guidance, and afford opportunities to the apprentices to participate in actual work environment activities. The researcher believes that there should be a balance between the institutional training and the workplace learning as both the TVET colleges and employers are critical stakeholders in the management of the apprenticeship

programme. This could be achieved through effective continuous stakeholders' engagement.

In the selected developing countries different apprenticeship trainings exist. These include the traditional and informal apprenticeships. The literature review has shown that there are successes and challenges related to the training of the apprentices in these apprenticeship systems. The researcher notes that, although the traditional and informal apprenticeships remain the main provider of skills in many countries with large informal economies, there is a need to upgrade these systems. The call for upgrading is attributed to the weaknesses embedded in traditional and informal apprenticeships such as exploitation, lack of formal rules, child labour, excessive working hours, and gender stereotypes. The researcher cautions that as the upgrading interventions are implemented they should be built on a thorough understanding of local norms and customs as these apprenticeships are recognised by communities in which they operate.

In addition, there are significant variations among countries studied with regard to the funding of the apprenticeship training. In Germany, the VET schools and the apprenticeship programmes are funded differently. The State, the Regional Education Authorities and the Chambers of Commerce bear the costs of the vocational school-based training, workplace training and external assessment and examinations. The apprenticeship training is firm-sponsored and the employers bear all the costs of the firm-based apprentices, including training of staff, trainers and workplace learning material and equipment. In Australia, the government and Commonwealth cover all the costs of the apprenticeship training. This means that the apprenticeship programme is fully funded. It can be concluded that this funding model eliminates implementation problems which have a bearing on the management processes. In Ghana, the traditional and informal apprenticeship training is self-financing. In Botswana, a trainee pays 5% of the cost of their training as a form of recovery while government pays 95%. In South Africa, there are two funding models in the TVET college sector. First, the National Norms and Standards for Ministerial Programmes, namely; NC (V) and the Report 191 NATED programme or 'N' courses. These programmes receive 80% subsidy from the DHET and the remaining 20% is set aside to establish a national

bursary scheme to reduce the burden of the college fees on students. Second, there is the discretionary and pivotal grant from the SETAs, NSF, government departments, or private funders. The TVET College that is accredited to train apprentices is at liberty to apply for Discretionary and Innovation Grant from these funders. This suggests that the ministerial and occupational programmes are not treated equally; preference is given to the ministerial programmes. It can be concluded that insufficient funding is one of the challenges that contributes to poor management of the apprenticeship programme and this needs the DHET's urgent attention.

The establishment of the Department of Higher Education and Training (DHET) in 2009 was a right step in the right direction. The Technical and Vocational Education and Training (TVET) system and the development of coordinated post school education and training in an attempt to bring back artisanal skills and to respond to economic imperatives have been the focus of the DHET. However, the newly established Department experienced new challenges, among others the apprenticeship curriculum.

The literature review reveals that the curriculum has been outdated dating back to the 1980s. The currency of curriculum is a highly contested area of discussion in TVET colleges where industries often register their discontent with the colleges regarding the scope of the curriculum and the relevance of the apprenticeship skills to their industry or enterprises. The TVET college curriculum responsiveness to the needs of the labour market and the articulation of programmes to the needs of the employers is something that current public TVET colleges are failing to achieve. The obsolete curriculum in TVET colleges represents the most serious constraint for an effective apprenticeship programme and as such colleges have lost their edge in labour market responsiveness. The TVET curriculum fails to prepare learners adequately for success in learning and employment. Unfortunately, this curriculum is currently being offered in all fifty TVET colleges with programmes that are outdated and unresponsive to an emerging economy and the fourth industrial revolution.

Having said that, the purpose of the TVET curriculum should be to prepare and equip students with knowledge and skills for the labour market, enhance their employability and/or enable individuals to earn sustainable livelihoods through self-employment or

establishing a company or cooperative. The curriculum must demonstrate clear pathways for articulation into higher education and training that would contribute both to the credibility of the qualification and the apprenticeship programme. The curriculum must also be relevant and current to the needs of the industry. The researcher is of the view that challenges pertaining to curriculum in TVET colleges are made difficult by centralisation of the college activities, implying that the DHET determines the terms and conditions regarding the colleges' activities. The researcher also believes that the decentralisation of the college activities, in particular the curriculum, to the colleges in collaboration with industry would provide a great deal of curriculum flexibility with the DHET providing policies and legislation.

With regard to the legislation that governs the apprenticeship programme, the DHET promulgated a new range of policies, regulations, legislation, strategies, and quality assurance bodies to respond to the new emphasis on reviving the apprenticeship system, and improving the management of the apprenticeship programme. These initiatives were also meant to centralise the apprenticeship programme so that it is managed from the DHET, and to address skills shortage, unemployment, poverty, and inequalities. The policy changes caused disjuncture in terms of what was required by the TVET colleges' management, the DHET, employers, and the SETAs. Unfortunately the implementation of the policies did not meet all the needs of vocational programmes and did not enjoy the universal support of industry, especially the support for apprenticeship training. The researcher holds the view that the reluctance of the employers to avail the workplace for training of apprentices could be attributed to the dissatisfaction and/or misunderstanding of the new legislation.

However, the DHET established two quality assurance bodies, namely, the Quality Council for Trades and Occupations (QCTO) which is a Quality Council established in terms of the Skills Development Act (97 of 1998) as amended. Its role is to oversee the design, implementation, assessment and certification of occupational qualification. This is the right approach as the QCTO became responsible for the single quality assurance system for the trades and occupations as well as a single certification. The National Artisan Moderating Body (NAMB) was also established in order to harness quality in the management of the apprenticeship programme. The NAMB was

established to coordinate artisans in South Africa by ensuring that that there is a single common national system for all artisan development as prescribed in section 26(a) (1) of the Skills Development Act (No 97 of 1998) as amended.

The development of skills in South Africa at intermediate level has been the responsibility of the trade schools, technical institutions technical colleges, and the Further Education and Training Colleges (FETC). The evolution of apprenticeships in South Africa is inseparable from the origin and establishment of these institutions, in particular the technical college sector currently known as the Technical and Vocational Education and Training (TVET) sector. The public TVET college sector has been identified by the government as playing a pivotal role in the provisioning and development of intermediate skills through apprenticeship training with the view to reducing the skills shortage, unemployment, poverty and inequality. However, the provisioning in the sector is uneven, with the post-apartheid government continuing the cycle of neglect that preceded it. The colleges were beset by poor quality of facilities, academic staff at these colleges are underqualified and lecturers lack industry experience and exposure. These contextual factors render the apprenticeship system ineffective and the colleges less effective in providing quality training. The apprenticeship curriculum is obsolete and the TVET colleges in their current state continue to offer a narrow range of programmes in relation to the needs of business. This leads to the production of apprentices who have a narrow set of skills that are not relevant to the skills required by the market. The employers argue that many programmes offered by the colleges are irrelevant and outdated, and the equipment used to train apprentices is antiquated. This implies the TVET colleges produce apprentices of poor quality. It can be concluded that the sector is not effective; it is beset by weak financial management, teacher ineffectiveness, inadequate infrastructure, poor labour market outcomes, and inadequate responsiveness to the needs of students.

The stakeholders' engagement in the management of the apprenticeship programme is critical. The term 'stakeholders' is more popular in the TVET sector and may mean persons or groups that have a stake in TVET activity. It includes a wide range of social groups like employers, both public and private, the business sector, SETAs, workers,

employees represented by agencies, professional associations, public and private TVET providers, civil society, lecturers and government. Each of these groups plays a unique role in the management of the apprenticeship programme. It is clear that stakeholders are not adequately engaged in the management of the apprenticeship programme.

In conclusion, the perception of the TVET colleges in South Africa is low, as compared to the Department of Basic Education because apprenticeship is still seen as part of a history of slavery, colonialism and apartheid. Many parents, employers, young people and employers incorrectly present their narratives that the apprenticeship programme does not require a high degree of skill or intelligence; it is perceived as a dumping site for the learners who did not perform academically at secondary school, and the trades are seasonal, dirty and dangerous. The negative attitudes such as these persist when teachers, guidance counsellors, and community providers lack knowledge of the benefits of apprenticeships. The Department of Higher Education and Training has a mammoth task to destigmatise the apprenticeship programme to become a more attractive option that provides high quality training.

The management of the apprenticeship programme in the TVET colleges remains a challenge. The colleges are macro-managed by the Department of Higher Education and Training (DHET). The directives are disseminated to the TVET college principals through a top-down approach. The principals are just ‘glorified heads of the colleges’. This is compounded by the political interference whereby the political heads are forever being ‘chopped and replaced’. This approach slows down the momentum of radical transformation of the TVET sector. However, these impediments can be removed or at least be minimised so that effective management of the apprenticeship can be effected. However, for this to happen, it requires the collective efforts and commitment of all the stakeholders to responsibly and actively play their part.

The next chapter deals with the research methodology used in this study.

CHAPTER 3

RESEARCH METHODOLOGY AND DESIGN

3.1 INTRODUCTION

The previous chapter focused on the review of literature, which provided the theoretical framework for the study. Literature assisted in providing the research question by providing some content and context for the following specific objectives:

- To determine the role of stakeholders in managing the apprenticeship programme in selected TVET colleges in South Africa.
- To explore the challenges, if any, that stakeholders experience in managing the apprenticeship programme.
- To determine the possible innovative strategies to deal with these challenges.
- To explore the strategies to enhance the quality of managing the apprenticeship programme.
- To develop recommendations in the form of guidelines that may enhance the effective management of the apprenticeship programme in TVET colleges in South Africa.

This chapter presents a detailed description of the research methodology employed in this study. Wahyuni (2012:72) describes research methodology as a model to conduct research within the context of a particular paradigm. It comprises the underlying sets of beliefs that guide a researcher to choose one set of research methods over another.

The overarching research aim of this study was to explore the management of the apprenticeship programme in selected TVET colleges. To achieve this aim, a qualitative research approach was used.

3.2 RESEARCH APPROACH

This study employed a qualitative research approach. Merriam and Tisdell (2016:15) define qualitative research as an “umbrella term covering an array of interpretive techniques which seek to describe, decode, translate, and otherwise come to terms with the meaning, not the frequency of certain more or less naturally occurring

phenomenon in the social world". This definition implies that researchers are interested in a research problem which look into meanings that individuals or groups ascribe to a social or human problem in natural conditions.

In view of the aforementioned definition the researcher has identified the most critical qualitative research approach attributes that are applicable to this study. They are discussed in the subsequent paragraphs.

Qualitative research was chosen because it is inherently inductive (Lochmiller & Lester, 2017:93). This implies that the researcher moves from a specific to a broader understanding or from an unknown to a known. De Vos, Strydom, Fouche and Deport (2011:243) argue that a qualitative researcher embarks on a voyage of discovery rather than one of verification; thus, his/her research is likely to stimulate new leads and avenues for investigation. In view of the aforementioned notions, in this study data collection, processing, analysing and reporting were done simultaneously as overlapping cycles. Data analysis in this study was done after all the interviews were completed.

The qualitative research approach was chosen because of its compatibility with the research question that underpins this study: *How do different stakeholders discharge their role of managing the apprenticeship programme in selected TVET colleges in South Africa?* Qualitative research attempts to answer these questions: who are the stakeholders and what are their roles? These questions prompted the researcher to deal with them in detail using a qualitative approach.

Qualitative research was also employed in this study. According to Johnson and Christensen (2012:388); Martella, Nelson, Morgan and Marchand-Martella, (2013:299) qualitative research studies things in their natural settings and the researchers interact with the participants. With regard to this notion, the researcher collected data by interacting with the participants in their respective college offices or boardrooms. Mostly, the participants were able to provide an in-depth description, understanding and interpretation of the role of the stakeholders in the management of the apprenticeship programme, challenges experienced and strategies used to enhance the effective management of the apprenticeship programme.

With regard to the usage of qualitative research in this study Lichtman (2013:21); Lochmiller and Lester (2017:93) and McMillan and Schumacher (2010: 335) contend that it enables the researcher to become the primary instrument for data collection and analysis. (The researcher went to the field and met with the participants whose knowledge, insight and experience were needed to answer the research question, interviewed them and recorded what transpired. Gaining such insight was an enormous task. The researcher had to suspend his personal and official obligations for the duration of the empirical study. However, the empirical data of the study consisted of thick descriptions of the participants' meanings, thoughts, feelings, assumptions, beliefs and values in managing the apprenticeship programme in selected TVET colleges.

3.3 RESEARCH DESIGN

According to Okeke and Van Wyk (2015:165), research design is a plan or strategy that the researcher uses to answer the research questions posed. In order to investigate the phenomenon under study; the management of the apprenticeship programme in selected TVET colleges, the researcher adopted the interpretative approach, particularly the constructive-interpretive paradigm.

The researcher holds the ontological position that reality is not something that exists outside of people's experience, but it can be known by the people who are in it. The researcher also believes that knowledge can be constructed (epistemological position) through the active involvement of the people. This approach was used because of its ability to generate an in-depth understanding of how different stakeholders discharge their role of managing the apprenticeship programme in selected TVET colleges in South Africa. Cao Thanh and Le Thanh (2015: 261) assert that in the interpretive paradigm the crucial purposes of the researcher are to get insight and in-depth information. The constructive-interpretive approach allowed the researcher to explore, analyse, describe and show relationship between events and meanings that can assist to increase readers' understanding of the management of the apprenticeship programme.

The phenomenon in this study was investigated in its natural setting (Johnson & Christensen, 2012:388; Martella et al., 2013:299). This means that all the unstructured individual interviews and the semi-structured focus group interviews were done on site at the selected TVET colleges.

3.3.1 Case study design

Having discussed the merits of the constructive-interpretive paradigm for investigating the phenomenon of managing the apprenticeship programme, the researcher in the subsequent paragraphs explains the appropriateness of the case study method.

Currently, there is an extensive range of research designs from which a researcher may select one that is relevant to his or her research questions (phenomenology, philosophical, comparative, evaluation, ethnography, grounded theory, case study research, and content analysis).

The physical interaction between the researcher and the participants enabled him to engage with participants who possessed rich information about the management of the apprenticeship programme.

Yin (2014:16) defines a case study as an empirical inquiry that investigates a contemporary phenomenon (the 'case') within its real-life context, especially when the boundaries between phenomenon and context may not be clearly evident. According to Creswell (2012:73), case study research is a qualitative approach in which the researcher explores a limited system over time through detailed, in-depth data collection involving multiple sources of information, for example, interviews, documents and reports, instead of relying on a single data source. In relation to the aforementioned description, Moore, Lapan and Quartaroli (2012: 243) describe a case study as an investigative approach used to thoroughly describe complex phenomena, such as recent events and essential issues in ways that will unearth new and more in-depth understanding of these phenomena and how people interact with components of these phenomena. The cited definitions and description of a case study implies that it involves an intensive inquiry in which the researcher obtains rich information about the phenomenon under study, namely, the management of the apprenticeship programme in selected TVET colleges.

The case study design was relevant to this study. The cases in this study were the individual colleges. The management of apprenticeship programme was the focus of the enquiry in these cases. The data for the understanding of the role of the stakeholders and the challenges related to the management of the apprenticeship programme in selected TVET colleges was gathered from the college principals, deputy principals: academic service, programme managers, campus managers or project managers, and the lecturers from the campuses that offer apprenticeship training. Yin (2014:7) avers that the evidence from multiple cases is often considered more compelling and the overall study is regarded as being more robust.

Cronin (2014:20) indicates that a case study has advantages. Firstly, a case study is accessible: it allows the researchers to experience situations and individuals in their own settings. Accordingly, this advantage gave the researcher an opportunity to interact face-to-face with the participants in their offices and boardrooms. It was through this interaction that the participants expressed their views on the management of the apprenticeship programme. Moreover, this advantage also enabled the researcher to gain an in-depth understanding of the phenomenon under study. Secondly, the advantage of a case study is that people can learn from it, perhaps more willingly than from actual experiences. This advantage allowed the researcher to establish good rapport with the participants through face-to-face interviews.

Yin(2014:20) notes that in fact, case studies are often criticised for their limitation in forming a firm basis for scientific generalisation However, this limitation was not applicable to this study because the main intention of it was to solicit in-depth understanding of the management of the apprenticeship programme. As a result, it had no objective of generalising the findings to other similar cases.

Martella et al. (2013:311) argue that overall generalisability is not a central concern of qualitative research; instead, the internal generalisability can be used to generalise the findings within the community or group being investigated to those not directly involved in the investigation. This implies that, despite the inapplicability of statistical generalisation, knowledge generated through qualitative methods can still be transferred to other settings. Instead of relying on formal generalisations, qualitative research achieves resonance through transferability or naturalistic generalisation and

processes that are performed by the readers of the research. Thomas (2012:23) also argues that what the case study is especially suitable for is getting a rich picture and gaining analytical insight from it. This suggests that the findings of this study can still be transferred to other TVET colleges. This implies that readers of the research may make a judgement based on similarities and differences when comparing the research situation to their own.

Having highlighted the significance of the research design, the next section describes how sampling and sample selection were carried out.

3.4 SAMPLING AND SAMPLE SELECTION

In this study, purposive sampling was employed. Johnson and Christensen (2012:231) explain purposive sampling as a non-random sampling technique in which the researcher solicits persons with specific characteristics to participate in a research study. The rationale for using purposive sampling was to locate information-rich informants, specific experience or cases that can be used to meet the purpose of the research study. The researcher considered purposive sampling to be appropriate for this study because he was not interested in making empirical generalisations of the findings but rather wished to select information-rich participants who were assumed to be knowledgeable, and could provide 'thick descriptions' of the management of the apprenticeship programme in selected TVET colleges in South Africa. Marshall (1996, as cited in Letseka, 2012:96) contends that "some informants are richer than others and that these people are likely to provide insight and understanding". Most importantly, the purposive sampling was used to answer the research question: how do different stakeholders discharge their role of managing the apprenticeship programme in selected TVET colleges in South Africa?

According to McMillan and Schumacher (2010:140), a very important consideration in conducting and evaluating research is the size of the sample or the number of participants. Qualitative samples can range from 1 to 40 or more. Fraenkel, Wallen and Hyun (2012:103) state that in qualitative studies the number of participants in a sample is usually somewhere between 1 and 20. In view of these notions, the researcher believes that the sample size of 30 participants in this study was adequate, the reason

being that the aim of this study was not to generalise the findings of this study to a large population. The other reason was that this study used an exploratory case study, which may not need many participants to obtain rich information about the management of the apprenticeship programme.

The use of purposive sampling enabled the researcher thoroughly to explore, analyse and describe the perspectives and views of the principals, deputy principals: academic service, programme managers, campus managers or project managers, and the apprenticeship lecturers in their respective colleges. As a result, in-depth insights into the role of the stakeholders and the challenges that hindered the management of the apprenticeship programme were gained.

3.4.1 Participant Selection

Sargeant (2012:1) accentuates that participant selection in qualitative research is purposeful. This implies that participants are selected because they are willing to openly share information or 'their story' that would inform the research question and enhance understanding of the phenomenon under study. In total, the researcher conducted three semi-structured, focus group interviews with the lecturers teaching apprentices. The size of each focus group in a single interview session was limited to six participants drawn from the three participating TVET colleges. Nieuwenhuis (2011:90) suggests that the use of more than one focus group interview is likely to bring critical chances to gain much sought-after alternative perspectives related to the study. The researcher believed that six lecturers per group would be adequate to simulate discussion but small enough to capture all relevant data.

The college helped in selecting lecturers who were knowledgeable and experienced in apprenticeship training and showed a keen interest in its management. The colleges helped to select these lecturers on the basis that they would have something to say on the topic and they were likely to generate rich, dense and focused information on the management of the apprenticeship programme. They were also selected because they have similar socio-characteristics and would be comfortable talking to the interviewer and each other, and produce data and insight that would be less accessible without the interaction found in a group. The participants for this study were chosen because

they were perceived to be capable of providing relevant information regarding apprenticeship training as they were exposed to it in the discharge of their day-to-day responsibilities.

Liamputong (2011:2); McMallian and Schumacher (2010:363) and Petty, Thomson and Stew (2012:380) indicate that the focus groups comprised homogenous participants who shared similar characteristics that were relevant to the question of this study. According to Phorabatho (2013:14) the demarcation of focus groups according to their ranks and levels of responsibility, i.e. separate focus group exclusively for the lecturers teaching apprenticeships, helped increase the participants' comfort in expressing their opinions. It also allowed for the free flow of ideas, and reduced the possibility of feelings of intimidation that might have otherwise led to the suppression of in-depth information needed in this study . In view of this, the following participants were selected:

- Three TVET college principals, one per college;
- Three deputy principals academic service, one per college;
- Three programme managers responsible for the occupational programme, one per college;
- Three campus managers or project managers, one per college;
- Eighteen lecturers, six per college.

Table 3.1: Summary of samples

Colleges	Principals	Deputy Principals Academic	Programme Managers	Campus Managers /Project Managers	Lecturers	Total
A. Vuselela	1	1	1	1	6	10
B. Majuba	1	1	1	1	6	10
C. Umfolozi	1	1	1	1	6	10
TOTAL	**3**	**3**	**3**	**3**	**18**	**30**

The ensuing section discusses site selection and participant selection.

3.4.2 Site selection

Ravitch and Carl (2016:89) argue that before the researcher considers the data collection methods for a given study, he/she must determine the study site. This process is referred to as site selection. The selection criteria used to select a setting must be defined, and this includes the identification and articulated rationale for justification of all choices for the site the researcher chooses.

Based on the above-cited notion, the researcher selected three public TVET colleges in South Africa. The purposively sampled colleges were Vuselela in the North West Province, and Majuba and Umfolozi in KwaZulu-Natal Province. The rationale for selecting these colleges was that they all offer apprenticeship programmes.

3.4.1 Vuselela Technical and Vocational Education and Training College

Vuselela TVET College was selected for the study because the other two TVET colleges in the North West Province, namely, Taletso and Orbit, were not offering an apprenticeship programme. The researcher is an employee of Vuselela TVET College and thus it was cost-effective and he was in close proximity to access the college. The researcher had a good relationship with the college SMT and it was an advantage to access the college. Out of five campuses, Matlosana Centre for Learnerships and Artisans Development is the only campus that offers an apprenticeship programme. As the name denotes, the campus offers engineering-related apprenticeship trades. The NAMB accredits the campus as a trade test centre. The campus was identified to carry out the Decade of the Artisan 2014-2024 programme that aimed to produce 30 000 artisans by 2024. This campus offers the following accredited apprenticeship training for:

- boilermakers;
- millwright;
- fitters;
- fitters and turners;
- civil engineering; and
- electricians.

3.4.2 Majuba Technical and Vocational Education and Training College

Majuba TVET College is situated in Newcastle in the northern part of KwaZulu-Natal. The college is the key driver of skills development in Amajuba and Umzinyathi Districts. The college serves major industries in the sectors of iron and steel manufacturing, mining (mainly coal), textiles and clothing production, cement, chemical manufacturing, tyre production, engineering and primary agriculture (Majuba TVET, 2016).

Out of four campuses/centres, Newcastle Technology Centre (Newtech) was chosen because it is the only centre specialising in apprenticeship training. The centre offers fully integrated engineering studies programmes, and the Newcastle Technology Centre offers a diverse range of exciting and innovative courses to enhance entry into the labour market and improve career opportunities in the engineering field. This centre boasts new high technology workshops equipped with appropriate modern equipment and machinery. The centre is an accredited trade test centre. It serves the needs of Southern African Development Community region and has previously received a Gold Certificate for college-industry partnerships.

Newcastle Training Centre is also one of the biggest in South Africa where real-life simulated workshops are used to equip learners with the necessary skills needed in the industry. Newcastle Training Centre has programme approval with the MERSETA, CETA and ESETA (Majuba TVET, 2016). This centre was relevant to this study as it offers the following apprenticeships and artisan trades:

- boilermakers;
- civil engineering;
- chemical engineering;
- electricians;
- motor mechanics;
- electro- mechanician (millwright);
- learner technician instrumentation;
- learner technician electrical;
- instrument mechanician;
- turners;

- fitters and turners; and
- fitters, welders, riggers (Majuba TVET, 2016).

3.4.3 Umfolozi Technical and Vocational Education and Training College

Umfolozi TVET College was selected for this study because it enjoys extensive partnerships with its corporate community in the interest of making education and training available and accessible to the province. Partnership with SETAs makes it possible to offer learnerships and apprenticeships (Umfolozi TVET College, 2016).

Of the five campuses that constitute Umfolozi TVET College, only Richtek campus was selected because it is an accredited trade test centre. It is also a MERSETA-accredited centre to offer electrician learnerships and artisanships. The other four campuses in Eshowe, Esikhaweni, Mandini and Chief Albert Luthuli were not selected because they do not offer the apprenticeship programme.

The next section describes the data collection instruments.

3.5 DATA COLLECTION INSTRUMENT

Mertens (2015:363) points out that there are various methods of data collection in qualitative research. These methods include interviews, observations in the field, case studies and document analysis. To record the views of the participants regarding the management of the apprenticeship programme in TVET colleges, the study utilised interviews and document analysis as data collection methods.

Moreover, the abovementioned types of instruments were selected to gather data because of the nature of the data required from the colleges, principals, deputy principals, campus managers or project managers, programme managers, and lecturers.

The next sections outline the appropriateness of the use of interviews in this study, with particular reference to their advantages and disadvantages.

3.5.1 The interview

Okeke and Van Wyk (2015:297) define the interview as a face-to-face conversational engagement between two people where the interviewer asks questions to elicit responses that can be analysed within a qualitative research situation. In the same vein, Bertram and Christiansen (2014:80) explain the interview as a conversation between the researcher and the respondent, but different from the everyday conversation in the sense that the researcher is the person who sets the agenda and asks the questions. It is a structured and focused conversation where the researcher has in mind particular information that he or she wants from the respondent and has designed particular questions to be answered.

This study used the interview as the main source of data collection. In this study, interview data was collected primarily through unstructured individual interviews and semi-structured focus group interviews. These two types of interviewing, including their advantages and disadvantages, are briefly discussed in the next section.

3.5.1.1 Unstructured individual interviews

According to Gandeebo (2015:113) and Petty, Thomson and Stew (2012: 380), there are three types of interviews most often used by field researchers, namely, unstructured, structured, and focus group interviews. These types of interviews are explained in the subsequent paragraphs.

Gandeebo (2015:114) and Torkar (2011:43) state that unstructured individual interviews are informal discussions that have no strict guidelines whereas structured interviews are closed fixed-response interviews where all interviewees are asked the same questions. The interviewer may not deviate from the interview schedule or probe beyond the answers received. Semi-structured focus group interviews, according to Edward (2000, as cited in Rubichund, 2011:128), is a “technique involving the use of in-depth group interviews in which participants are selected because they are purposive, although not necessarily representative sampling of a specific population, this group being ‘focused’ on a given topic”.

This study used unstructured individual interviews and the semi-structured focus group interviews as data collection techniques. In this study, unstructured individual interviews were held on a one-on-one basis with the purposively sampled three principals, three deputy principals, three programme managers, and three campus managers or project managers. The reason for selecting these individuals was that the college senior and middle management teams play a critical role in the management of the apprenticeship programme. This technique was employed to collect qualitative data by setting up a situation with the leadership of the college. The researcher decided to use unstructured individuals since he had specific areas that he wanted to explore. The idea was to create a scenario that made it easy to understand the leadership's point of view rather than make generalisations. The researcher also believes that it was important to establish rapport with the leadership of the college so that the interviews flowed like ordinary conversation. Berg (2004) cited by Ndoziya (2014: 100) maintain that unstructured interviews have potential to elicit from the participants the actual information being researched, and are reasonably objective while permitting more thorough understanding of the participants' opinions. The unstructured individual interviews were also selected because the college leadership plays a critical role in the management of the apprenticeship programme. The unstructured individual interviews also enabled the researcher to obtain in-depth understanding as well as insight into the phenomenon, especially in terms of how participants responded to their challenges.

Although the unstructured individual interviews were completely 'unstructured' in this study, they were not without focus. The researcher prepared open-ended questions with which to begin and guide the interview (Appendix G). The guide contained of questions that did not need to be asked word-for-word and followed in an established order; rather, they served as a guideline within which questions and probes were asked to clarify and illuminate particular subject areas. The researcher used the interview guide to ask probing questions when the interviews did not proceed smoothly and to ensure that relevant issues were addressed (Appendices G & H).

De Vos et al. (2011:350) argue that in unstructured individual interviews, the participants must be prepared for the interview. The researcher sought permission

from the selected principals to conduct interviews (Appendix B). The researcher arranged the time and place for the interviews well in advance, and followed this up in writing and confirmed them closer to date. The setting was easily accessible, comfortable, and provided privacy. This also encouraged involvement and interaction. The researcher conducted separate interviews with the principals, deputy principals, programme managers, and campus managers or project managers in their respective offices and/or the college boardroom. The researcher believed that the participation of principals, deputies, programme managers, and campus managers or project managers in the same group interviews was likely to inhibit the desired openness, free flow of ideas and objective responses.

Furthermore, Strydom and Bezuidenhout (2014:188) point out advantages of unstructured individual interviews as being flexible, as they are not prescriptive. This advantage gave the researcher an opportunity to allow the participants to respond to questions as freely and extensively as they wished. This advantage also enabled the researcher to deviate from the sequence of questions, not necessarily sticking to the exact formulation of the pre-determined questions (Appendix G). Therefore, the interview aimed to obtain the individual views of the participants on the problem under investigation. The unstructured interview format also allowed the researcher to ask a participant to clarify a point he or she was making and provide a more detailed explanation. This advantage allowed the researcher to probe using further questions if the responses of the participants were not rich enough and allowed them room to express their personal views adequately.

However, individual interviews are not without limitations. According to Lopez and Whitehead (2016:131), unstructured individual interviews are time-consuming and resource-intensive. In overcoming this limitation, the researcher cautiously estimated the number of interviews that might be necessary to gather a complete set of data. The researcher also arranged for fieldwork well in advance. This included travelling expenses, meals, accommodation, as well as recording equipment. Each interview session lasted between 30 and 60 minutes.

3.5.1.2 Semi-structured focus group interviews

The researcher selected semi-structured focus group interviews to collect large amounts of data in a short period of time. The group dynamics in semi-structured focus group interviews enabled the researcher to elicit more information since participants feel more confident about expressing their true feelings within a group where there is peer support than in individual interviews. In addition, the semi-structured focus group interviews were chosen on the basis of the widely available literature and the Vygoskian perspective that the practice of anybody in any discipline cannot be understood apart from the thought process of the practitioners, and with semi-structured focus group this can be easily revealed. Furthermore, Woldetsadik (2013:98) maintains that the semi-structured focus group interviews allow the researcher to question several individuals systematically and simultaneously. It enables the researcher to elicit opinions, attitudes, feelings and perceptions about the group on the management of the apprenticeship programme.

The focus group interviews were held at each of the participating colleges and did not disrupt learning and teaching. The semi-structured focus group interviews were voice recorded and took between 30 and 60 minutes. More importantly, the data obtained from the focus group interviews was used to complement the data obtained through unstructured individual interviews.

Lopez and Whitehead (2016:131) observe that semi-structured focus group interviews provided a number of invaluable advantages. The focus group interview is helpful because it brings several different perspectives into contact. This advantage benefitted the study in the sense that the researcher was able to elicit rich information from different perspectives.

According to Onwuegbuzie, Dickson, Leech and Zoran (2009:2) a focus group interview is economical, fast and efficient method for obtaining data from multiple participants, thereby potentially increasing the overall number of participants in a given qualitative study. Furthermore, the researcher was able to collect a significant amount of data from the focus groups and was also able to get every question answered.

The group contexts also afforded the participants the opportunity to exchange and explore ideas and made them aware that there was a degree of security in expressing themselves in a group. The ultimate goal of using semi-structured focus group interviews was to understand the reality underpinning the management of the apprenticeship programme, and to obtain qualitative data.

A number of scholars, including Nieuwenhuis (2010:90), Ary et al. (2010:381); Lopez and Whitehead (2016:132) and Phorabatho (2013:124) observe that the use of semi-structured focus group interviews also poses some disadvantages. The focus group interviews are time consuming and given the number of participants typically involved, the number of questions that may be asked is limited. Groups may be difficult to assemble and may vary considerably in comparison and responses. Indeed, the quality of the data is dependent upon the willingness of the participants and the group dynamics of the conversation. The information collected could be one-sided and therefore biased through group processes such as domination of the discussions by the more outspoken individuals, 'group think', and the difficulty of assessing the viewpoints of less assertive participants. The group dynamic, to a certain degree, may suppress dissenting voices or different views on controversial topics, regardless of the moderator's attempts to prevent this from occurring. This posed a threat that information collected might be one-sided and therefore biased.

To overcome possible bias, subjectivity and individuals dominating conversations the researcher assumed the role of a moderator, and remained neutral to ensure that everyone felt comfortable in expressing his or her opinions. He also avoided nodding or shaking his head, raising eyebrows, agreeing or disagreeing with comments, or praising or denigrating participants. With regard to shy participants, the researcher elicited further information from them with comments like 'Can you tell me more about that?' 'Can you give an example?' In dealing with dominant participants, the researcher acknowledged their opinions and solicited other opinions. Sentences like 'Thank you' and 'What do other people think?' were helpful. The researcher paid attention to the participants' own words and transcribed the interviews verbatim. He did not make known his personal views regarding the appropriateness or otherwise of the

responses. Value judgements that might have biased the findings of the research were in this way avoided through the entire interview process.

The next section discusses the interview process.

3.5.2 The Interview Process

Jacob and Furgerson (2012:7) suggest several preparation stages for interviewing which include the following:

- Choose a setting with little distraction in which a quality recording can be made.
- Explain the purpose of the interview.
- Address terms of confidentiality.
- Explain the format the interview usually takes.
- Tell how to get in touch with you later if they want to.
- Ask them if they have any questions before you both get started with the interview.
- Do not count on your memory to recall the answers.

To facilitate a meaningful interview, the researcher used the interview guides (Appendix F, G and H). Moreover, the guides were used to clarify any questions that were obscure and asked the participant to expand on particularly important or revealing answers (Fraenkel et al., 2012:120). They also helped to keep the researcher organised, and provided a record of information in the event that the recording devices did not work or when the researcher later transcribed the interviews. The guides were a backup system for recording information. However, Flick (2015:140) argues that the guides are not prescriptive; no rule determines what should go first and what should come later. Much depends upon the study's objectives, the time allocated for the interview, the person being interviewed, and how sensitive some of the questions are.

The formal interview session took place as planned. However, there were minor incidents. The interview with one of the deputy principals academic service was interrupted because the boardroom was to be used for an urgent meeting by other staff members. The deputy principal: corporate service manager who was to chair the meeting requested the staff members to give us time to finish the interview. The interview with the deputy principal: academic service continued. In another two

colleges, the initial participants earmarked for the interview were not available owing to a tight schedule and attending conferences, and the researcher had to replace them with their counterparts. In another incident, after explaining the interview process to the focus group participants, two participants withdrew from the interview but the researcher continued with the same group who were willing to participate. The interview continued and was completed as planned.

Upon completion, the researcher took some time to organise material, mark the recordings, put notes away, and record the length of the interview or stop time

According to Palaiologou, Needham and Male (2016:178), the transcription can begin as soon as the first interview is completed or it may be conducted after all the data have been collected. For this study, the researcher began the transcription of the recorded interview data after all the data had been collected. He requested a colleague who had an audio-typing qualification to transcribe the recorded data. The transcribed data were stored in a separate, password-protected file in a computer, on a USB, and a CD-Rewritable to create a backup copy of the original data. The researcher made a printout of the transcribed data so that he could have a hard copy to work on.

The researcher finished the interview sessions by thanking the interviewees for availing themselves and participating in the interview, and for their meaningful contributions.

3.5.2.1 Recording interview data

The researcher used an audio recorder, pen, and paper to collect interview data. This allowed a much fuller record than just notes taken during the interview. This helped prevent the possibility of interviewer bias entering into what was recorded. In this regard, Fraenkel et al. (2012: 456) and Jacob and Furgerson (2012:7) maintain that the recording device is often considered an indispensable part of any qualitative researcher's equipment. However, recorders do not 'tune out' conversations, change what has been said because of interpretation either consciously or unconsciously, or record words more slowly than they are spoken. The researcher used a recorder to capture the responses of the participants verbatim. In addition, the researcher ensured that neither note-taking nor recording derailed his attention to the responses during the

interview session. The field notes also became a backup system for recording information in the event the recorder was not functioning or the recording was erased erroneously after the interviews and during transcription (Patton, 2002, as cited in Phorabatho, 2013:125). Furthermore, Phorabatho (2013:126) explains that, because a recorder was used, the notes primarily comprised shorthand, key phrases, and lists of major points used by participants. An independent transcriber was engaged.

Having explained how data were collected, the next section concentrates on the data analysis process.

3.6 DATA ANALYSIS PROCESS

Creswell (2014:196) indicates that data analysis involves the 'breaking up' of data into manageable themes, patterns trends and relationships. It means making sense out of text and image. Data analysis also involves segmenting and taking apart the data as well as putting it back together.

According to McMillan and Schumacher (2010:367) and Noble and Smith (2014:3), qualitative data analysis involves an inductive process of examining, selecting, categorising, comparing, synthesising and interpreting data for plausible explanations to address the principal aim of the study.

Data analysis in this study was done after all the interviews were completed. This study adopted a coding method of data analysis as captured by Hennink, Huttler and Bailey (2011: 234). This cyclical process adopted in the study focused on:

Stage 1: Getting to know the data /familiarisation

In this stage, the researcher read and reread the transcripts and listened to the audio-recordings several times, jotting down any impression as he went through the data. The researcher continued highlighting key words, sentences and recurring common phrases in order to gain clear understanding of the data. This is called memoing.

Stage 2: Organising data

The researcher organised the interview transcripts obtained from the principals, deputy principals, programme managers, campus managers or project managers, and the

apprenticeship lecturers into six tables. The data was organised by sorting the interview transcripts, and putting them together in the folder. The participants were given pseudonyms to identify them. (e.g. P1, P2, or DP1, or DP2) and each transcript was labelled with a file name. The rationale for labelling the data was to keep it anonymous. The transcripts were stored in a separate password-protected file on a computer, USB and C-D Rewritable. The researcher also printed hard copies to work on. This served as a backup copy of the original data.

Stage 3: Coding data

The coding process in this study took place after the interview transcripts were put into separate tables. During the coding process, the researcher critically read each interview transcript line by line. In doing this, he assigned words, phrases or descriptive words to the transcripts. During the process of coding the researcher put a key word or phrase against the information to identify the codes.

The researcher also classified the data into themes, categories and sub-categories. When the most appropriate wording for the topics had been determined, they were turned into categories. By doing so, he determined the themes related to the research questions from each transcript.

Stage 4: Summarise the analysis

The process of summarising or displaying the codes came after the coding process was completed. The researcher sorted all the codes into one table to relate the role of the stakeholders to how they addressed the challenges and the strategies they used to address them. The researcher reviewed any data that were left out to see where and how it could be included. The researcher checked whether the participants responded to all the questions asked.

Stage 5: Data interpretation

The researcher interpreted the data in terms of themes, categories and sub-categories and drew conclusions based on the research questions. Table 3.2 summarises the data analysis process as revealed by Creswell (2012: 237, Hennink et al.(2011: 234) and Woldetsakdik (2013:112).

Table 3.2: Data analysis process

STAGES	ACTIVITY
1: Getting to know the data/ familiarisation	Reading all the field notes and transcripts several times to obtain general sense, repeatedly listening to audio tape, write down any impression, and highlight the words, phrases, sentences that recur.
2: Organising data	Cutting and sorting the data, use folders or files to gather together materials dealing with the same batch of data. Give each participant an identification pseudonym, mark all data, transcribe audio tapes verbatim, and store transcripts in a separate file.
3: Coding data	Sort data by looking for units of meaning, words, phrases, sentences that appear regularly, identify categories and patterns, make deductions from categories, look for missing meaning.
4: Summarise the analysis	Identify the core meanings of thought**,** feelings and experiences in terms of the perspectives of the participants. Integrate the categories into the literature to recontextualise the data.
5: Data analysis	At this stage, data w broken up into themes, categories and sub-categories, and organised into notes.

Having outlined the data analysis process, the next section discusses credibility and trustworthiness.

3.7 CREDIBILITY AND TRUSTWORTHINESS

This section focuses on the quality control measures used in this study to ensure credibility and trustworthiness of the research. Zitomer and Goodwin (2014:209) point out that credibility encompasses the extent to which the phenomenon represents experiences shared by participants or observed by the researcher. In relation to this notion, Petty, Thomson and Stew (2012:383) explain that a study is credible when others external to the study recognise the findings. This means that the researcher needed to ensure that the evidence was clear and comprehensive. Trustworthiness is essential in qualitative research. In ensuring that the research findings could be

trusted, reliable and valid, it was important to use different strategies for validation. Reflexivity, member checking, and low-inference descriptors are employed to ensure the trustworthiness of qualitative data.

The next paragraphs explain these measures put in place to ensure trustworthiness.

3.7.1 Reflexivity

Reflexivity involves the researcher's self-awareness, honesty and genuineness with her/himself, the research process, and the readers (Clearly, Horsfall & Hyter, 2014:201). Similarly, Ravitah and Carl (2016:15) point out that the researcher's reflexivity entails a self-reflection on biases, theoretical preferences, research settings, the selection of participants, the data generated and analytical interpretation. In combating bias and subjectivity in this study, the researcher played the role of an outsider. This means that the researcher distanced himself while bracketing his judgement when the interviews were in progress. In this regard, the researcher was attentive, tolerant, sympathetic, disciplined, and acted with integrity towards the participants throughout the interviews. The researcher also refrained from letting his own opinions and perceptions impact the study. Instead, he was guided by the data and not by his personal opinions and perceptions on the research topic. Therefore, the researcher was vigilant and frequently reassessed his positionality and subjectivities.

3.7.2 Member Checking

Birt, Scott, Cavers, Campbell and Walter (2016:1) explain that member checking is also known as 'respondent validation'. It is a technique for exploring the credibility of results. Data or results are returned to participants to check for accuracy and resonance with their experience. According to Anney (2014:277) and Clearly et al*., (*2014:209) this means that the researcher verifies the data collected with the participants. To ensure the credibility of the study, the researcher brought the interview transcripts back to the participants to verify the preliminary analysis of the empirical data with some of them to clarify and to eliminate possible misinterpretations and misunderstanding. (Member checking allowed the researcher to share comments and gain clarity with participants about the study findings and provided opportunities for questions, critique, feedback, affirmation, and additional information.

To ensure the credibility of the study, participants were given the opportunity to refuse to participate or to withdraw from the study at any time to ensure that only those participants who were prepared to take part and give information freely were involved.

3.7.3 Low-Inference Descriptors

Another important strategy that was used was low-inference descriptors. Johnson and Christensen (2012:266) describe low-inference descriptors as description that is phrased very similarly to the participants' accounts and the researchers' field notes. In this regard, this study used verbatim or direct quotations of the participants' words. Using many low-inference descriptors such as verbatim or direct quotations helps the reader experience the participants' world. The quotes were used to show differences in people' comments, to give examples of typical responses relative to specific topics, and to illustrate particular understandings or perceptions.

3.8 ETHICAL CONSIDERATIONS

Fraenkel et al. (2012:61) and Hammersley and Traianou (2012: 1) explain that most educational researchers deal with human beings. Therefore, it is necessary to understand the ethical and legal responsibilities of conducting research. The term 'ethics' refers to right or wrong from a moral perspective. The researcher adhered to the fundamental ethical principles. The researcher honoured the participants' privacy by protecting their identities and anonymity by adopting pseudonyms, treating participants with respect and by informing them from the onset that they were always at liberty to withdraw from the research study at any time.

The researcher sought permission to collect data from individuals and sites. Hennink, Huttler and Bailey (2011:120) concur that permission often needs to be sought from multiple individuals and levels in organisations. Taking this view into consideration, written permission was obtained from the Director-General of the DHET (Appendix A and B) and the principals of the sampled colleges (Appendix C). After obtaining permission from the DHET and Principals of Colleges, the researcher also sought permission from the participants to take part in the study. They were asked to sign an informed consent form (Appendix D).

The interviews for this study were held in the college boardroom and/or participants' respective offices. Before the commencement of the interviews, the researcher provided the participants with information contained in their individual signed letters of informed consent. The participants were informed that the study sought to make contributions that might improve the management of the apprenticeship programme in selected TVET colleges in South Africa. They were informed about the interview procedures, foreseeable risks or discomforts, benefits and confidentiality. The researcher stated the aims and objectives of the study at the start of the interviews. The participants were also advised that their role in the study was voluntary and that they had the right to withdraw at any time if they so wished.

The next section outlines the application of these ethical principles in the study.

3.8.1 Approval for Conducting the Research

To ensure that the research complied with ethical principles the researcher applied for ethical clearance from the University of South Africa (UNISA) and this was obtained (Appendix A). Permission to conduct the research was sought from the DHET (Appendix B) and was subsequently granted (Appendix C). The researcher also sought the permission of selected TVET college principals (Appendix D) which was granted. The researcher sent emails to the participants informing them about the intention to conduct the research. The permission letter to conduct the research from the DHET, a copy of the ethical clearance from UNISA, and the interview schedules were attached.

3.8.2 Informed Consent

According to Johnson and Christensen (2012:107) informed consent refers to an agreement to participate in a study after being informed of its purpose, procedures, risks, benefits, alternative procedures, and limits of confidentiality. Informed consent implies that the participants have a choice about whether or not to participate without any force, fraud, duress, or other forms of constraint or coercion.

Similarly, Erickson (2012:1457) underscores that consent that is genuinely informed and without coercion reduces the risk of social harm because it affirms the dignity and respects the agency of those who will be involved in the study. Furthermore, Jacob

and Furgerson (2012:7) maintain that research should not proceed with the interview without the consent of the participant. In this regard, informed consent in this study was obtained prior to the commencement of data collection from all the participants.

Participants were given information pertaining to the study in order to obtain voluntary consent from them. In the informed consent, the researcher informed the participants about the purpose and procedures of the study so that they understood the nature of the research and the likely impact it would have on them. The participants were also informed about the name and contact of the researcher and the supervisor, the title of the research, the right to privacy, and the right to ask questions.

After a thorough explanation, the participants were then given the informed consent form (Appendix E) to read and sign as evidence. This was done before they participated in the interview. The participants were reminded about their rights to withdraw from the study at any time during the process without any negative consequences. More importantly, all the participants granted permission before the commencement of the interviews.

3.8.3 Privacy, Anonymity and Confidentiality

The researcher ensured the privacy of the participants by using three main practices: anonymity, confidentiality, and appropriate storing of data identified as by Johnson and Christensen (2012:116) and McMillan and Schumacher (2010:121). The privacy of the participants in this study was protected in the sense that the data they provided was handled and reported in such a way that the data could not be associated with the research participants personally. The participants were also requested not to reveal their names, or those of their colleges while responding to questions. The personal information and records accessed through interviews were held in strict confidence and the participants' identity was not revealed in the research report.

Mertens (2015:353) explains that anonymity means that no uniquely identifying information is attached to the data and therefore no one, not even the researcher, can trace the data back to the individual providing it. More importantly, anonymity in this study was guaranteed by means of utilising pseudonyms or code names in place of participants' real names. The codes P1, P 2 and P3 were used in the place of the actual

names of the respondent principals interviewed first, second and third respectively from North West and KwaZulu-Natal provinces. A similar method was used to protect the identity of the deputy principals academic service. In their case, the codes DPA1, DPA2 and DPA3 were used to protect their identity. In the case of the programme managers, the codes PM1, PM2 and PM3 were used. The campus managers/project managers' identity was protected by using code names CM1, CM2, and CM3. In the case of the lecturers, codes FG1, FG2, and FG3 were used.

According to Mertens (2015:353); McMillan & Schumacher; (2010:122) and Pazavakambwa(2016:132) confidentiality means that no one should have access to individual data or names of the participants except the researcher, and that the participants knew who would see the data before they participated. To ensure confidentiality, the researcher kept a clear boundary between what the participants told him and what he told them. No information was passed from one research participant to another

The following procedures identified by McMillan Schumacher, (2010:122) were used to protect the confidentiality of participants in this study:

- collecting data anonymously;
- asking participants to use code names;
- coding data with numbers and letters instead of names;
- using codes for identification of participants when transcribing audiotapes; and
- disposing of information that could reveal the identity of participants or places by burning or shredding rather than disposing of it in a wastebasket. The participants were also assured that all study data including hard copies of transcripts and interview tapes would be kept in a locked metal filing cabinet/cupboard in the researcher's office for a period of five years in the event of any queries arising as to authenticity. The electronic information was stored on a password-protected computer. The future use of the stored data would be subject to a further University Ethics Committee Review and approval if applicable. Disposing the data after five years will be done by burning or shredding the hard copies and deleting the stored data in the computer hard drive.

The interviews for this study were held in the college boardroom and/or participants' respective offices. Before the commencement of the interviews, the researcher provided the participants with information contained in their individual signed letters of informed consent. The participants were informed that the study sought to make contributions that might improve the management of the apprenticeship programme in selected TVET colleges in South Africa. They were informed about the interview procedures, foreseeable risks or discomforts, benefits and confidentiality. The researcher stated the aims and objectives of the study at the start of the interviews. The participants were also advised that their role in the study was voluntary and that they had the right to withdraw at any time if they so wished.

The researcher also sought permission to take notes and audio-record the interviews from the participants. The participants were also informed that the information and data presented during the interviews were subject to the strictest confidentiality. Having presented this information, the participants were requested to sign the informed consent form (Appendix E) with the understanding that they were free to withdraw their consent at any time without penalty by advising the researcher.

3.9 CHAPTER SUMMARY

This chapter described the research methodology. The study adopted the qualitative research approach to answer the research question. The rationale for using qualitative research was provided. Furthermore, this study adopted a qualitative case study design and the reasons for selecting it were provided. Purposive sampling and related procedures as used in this study were explained**.**

The chapter also examined in detail the sources of data collection, namely, unstructured personal interviews and focus group interviews. The data analysis procedure was also explained. This chapter explained reflexivity, triangulation, member checking, and low-inference descriptors as measures employed to ensure trustworthiness of the qualitative data. The ethical principles, namely, approval for conducting the research, informed consent, privacy, anonymity, and confidentiality were discussed. Finally, the chapter outlined the delimitations of the study. In the next chapter, the empirical findings are presented in detail.

CHAPTER 4

PRESENTATION AND DISCUSSION OF KEY FINDINGS

4.1 INTRODUCTION

The preceding chapter discussed the research methodology and design employed to gather data in this study. Chapter 4 presents a discussion of the research findings based on the data analysis process to link the research questions to answers. Interviews were used to solicit rich information from the participants concerning the management of the apprenticeship programme in selected TVET colleges. The researcher used two types of interviews, namely, unstructured individual interviews and semi-structured focus group interviews. The main purpose of the interviews was to gather 'deep' information and understanding about the phenomenon under study. This chapter presents the data analysis and the findings obtained from the interviews and provides a detailed interpretation of the empirical findings. The empirical findings were aligned to the conceptual framework of the research, the research aim, and objectives.

A qualitative data analysis process as described in sections 1.8.1 and 3.2 was used to analyse and interpret the raw data collected through interviews. The raw data obtained from unstructured individual interviews with the principal, deputy principal academic service, programme managers, and campus managers, and semi structured focus group interviews with the lecturers teaching apprenticeship programme were analysed systematically and developed into themes, categories and sub-categories based on the aim of the study. These themes, categories and sub-categories that guided the analysis and findings of this empirical study are presented in Table 4.1. Creswell, (2012: 216) maintains that in a case study data is analysed through description of the themes of the case study as well as across case themes. Table 4.1 indicates the major themes that emerged from the verbatim transcripts. The table focuses on how the raw data obtained from the principals, deputy principal academic, programme manager, campus managers/project managers were analysed and collapsed into three themes, fifteen categories, and three sub-categories. The following are central themes identified in the study:

- The role played by stakeholders in the management of the apprenticeship programme;
- Systemic barriers to the apprenticeship programme; and
- Strategies to develop a sustainable apprenticeship programme.

Table 4.1: Themes, categories and sub-categories

Theme 1	**4.2.1 Role played by stakeholders in the management of the apprenticeship programme**
Category 1	4.2.1.1 Funding of the apprenticeship programme
Category 2	4.2.1.2 Provide workplace training
Category 3	4.2.1.3 Placement of the apprentices at the workplace
Theme 2	**4.3 Systemic barriers to the apprenticeship programme**
Category 1	4.3.1 Lack of monitoring of the apprentices at the workplace
Category 2	4.3.2 Inadequate resources
Sub-category 1	4.3.2.1 Unavailable training material
Sub-category 2	4.3.2.2 Shortage of equipment of modern technology
Sub-category 3	4.3.2.3 Poor training facilities
Category 3	4.3.3 Insufficient workplace training
Category 4	4.3.4 Poor quality of recruited learners
Category 5	4.3.5 Insufficient funding
Category 6	4.3.6 Lack of professional capacities of supervisors at the workplace
Category 7	4.3.7 Low-quality curriculum
Category 8	4.3.8 Evolution of apprenticeship legislation
Category 9	4.3.9 Poor physical facilities
Theme 3	**4.4 Strategies to develop sustainable apprenticeship programme**
Category 1	4.4.1 Strengthen partnership between the college and industry
Category 2	4.4.2 Develop apprenticeship training guide
Category 3	4.4.3 Staff development

The categorisation of the raw data in Table 4.1 helped with discussing the research findings. A presentation of research findings follows in the next section.

4.2 PRESENTATION OF RESEARCH FINDINGS

Table 4.1 highlighted three significant themes that emerged from the verbatim transcripts. The identified themes, categories and sub-categories served as the main

categories and sub-categories as discussed in detail in the subsequent paragraphs and they present the significant findings of this empirical study. The presentation of the research findings includes selected verbatim quotations to give information about participants' interpretation and personal meaning. Creswell (2012:254) elaborates that the primary form for representing and reporting findings in qualitative research is a narrative discussion. A narrative discussion is a written passage in which researchers summarise in detail the findings from their analysis. Bertram and Christiansen (2014:125) emphasise that many qualitative researchers use quotes from the respondents to illustrate the points that they are making. Using verbatim quotes is one way of presenting the data. Quotes are a way of ensuring that the voice of participants is heard. In addition, Morrel and Carrol (2012:132) caution those quotations should not be allowed to stand alone. Instead, the researcher should always provide a written commentary on the quotations. The researcher edited the verbatim quotations.

As previously stated, the ensuing discussion will thus include selected applicable verbatim quotations to give information about the participants' interpretation and personal meanings. The quotations from the verbatim transcript will be utilised to support the findings and to emphasise the pertinent research findings. The next paragraphs discuss the first theme and its three categories.

4.2.1 Role Played by Stakeholders in the Management of the Apprenticeship Programme

The participants' perceptions about the role played by the stakeholders in the management of the apprenticeship programme are clustered as:

- funding of the apprenticeship programme;
- provide workplace training; and
- placement of the apprentices at the workplace.

It emerged from the interview data that the participants perceived the role of the stakeholders as follows:

4.2.1.1 Funding of the apprenticeship programme

The participants were asked to indicate what they perceived as the role of the stakeholders in the management of the apprenticeship programme. Most of the participants indicated that the role of the stakeholders was to fund the apprenticeship programme.

P1 pointed out the following:

"*At the moment we are relying on the SETAs funding as well as the National Skills Fund and those are the main streams of funding. We do find here in our areas companies willing from their own coffers to also train people that are already employed" (P1).*

P2 provided the response that:

> *"They identify the need, they then package the need the way they want it; they approach the service provider to say this is what we want from you as college. Then the college would have to quote, considering all the necessary material that would be necessary including the human resource and financial part, infrastructural availability. We consider all that when doing quoting"* (P2).

Sharing the same sentiments, P3 asserted that:

> *"My view regarding the role of the external and internal stakeholders. Externally I see the SETAs basically provide a broad-framework, the funding part; the how can I say… they should play a big role regarding linkages with industries where the students should get maybe the work-based. They play the role there not only the college"* (P3).

The ensuing statement from the FG2 interview emphasised that:

> "*The SETAs should ensure, because they are custodian of the money. They are accountable to those funds, make sure that those institutions are accredited and the programme they would be funding is accredited programme recognised by SAQA"* (FG2).

DPA1 asserted that:

> *"Most of the apprenticeship programmes are funded by the SETAs; the ones we do, but we also have private companies that are also funding" (DPA1).*

Sharing the same sentiment, PM3 stated that:

"*SETAs roles are limited to funding. They have ETQA role to play but you realise that they will fund and only visit the project for monitoring and evaluation only when there is a need to make payment but in terms of support that is very limited. Also, the SETAs funding emanates from the National Skills Fund" (PM3).*

The findings above clearly indicate that the participants perceive the role of the stakeholders as being to fund the apprenticeship programme. Most of the participants singled out SETAs as the main source of funding of the apprenticeship programme. This suggests that the SETAs assist the TVET colleges to deliver their mandate of artisan development. It also suggests that there is synergy between the SETAs and the TVET colleges in addressing the scarce and critical skills shortage in the country. On the contrary DPA1 contended that "…*but in terms of support that is very limited..."* This suggests that SETAs are not adequately supporting the TVET colleges to manage the apprenticeship programme.

4.2.1.2 Provision of workplace training

From the empirical investigation, the participants unanimously agreed that the stakeholders play a vital role in the management of the apprenticeship programme by providing workplace training for the apprentices. The stakeholders host the learners/apprentices and ensure that, while they are working, they are also learning about the job. The stakeholders must ensure that the learning happening on-the-job is integrated with the theoretical learning. They play a role in assessing the learners. It is also the responsibility of the stakeholders to identify and train workplace assessors and mentors.

An informative comment regarding this was made by P1:

> *"Private companies, we view them as people that should create a platform for training and development of artisans in the sense that they need to provide the practical training component. As you are aware that as colleges we do not offer that much of practical but rather we offer theory training"* (P1).

Sharing the same sentiment, FG3 indicated that:

> *"The industries also play a part in generating the standards for trade testing because when the trade tests are generated or are created the National Moderating Body uses the services of the external industry people experts in assisting them in compiling these tests. Industry got a major role to play. Over and above provide the apprentices with the workplaces"* (FG3).

FG2 emphasised:

> "*The role of stakeholders is to indenture the apprentices, sign contract with them, and basically to give them an idea of what the apprenticeship is all about. Institutionalised and workplace training they will need to do before they can apply for trade test"* (FG2).

PM2 emphasised the role of the stakeholders in the following excerpt:

> *"Over and above that, industry employers are another stakeholder in terms of providing work experience. Employers are pivotal in ensuring that the programme succeeds. In order for the apprenticeship programme to be managed better, we need the role of the employer"* (PM2).

The findings confirmed what the literature revealed that one of the roles of SETAs as the stakeholder in the management of the apprenticeship programme was to identify workplaces for practical work experience.

The findings are also consistent with what is stated in the literature by Bound and Lin (2011:22) who note that the workplace should provide the apprentices with opportunities to experience the real environment and to practise under real conditions. The list of the tasks that the apprentice has to learn at the workplace is documented in a logbook. Moreover, the supervisor who is a qualified assessor closely monitors the progress of the apprentice in following the task list, and an experienced artisan in the same trade as the apprentice certifies the completion of each task in the logbook. The supervisor will endorse completion of a task only upon the apprentice's achievement of the acceptable level of competence in the prescribed task.

The empirical findings are also consistent with what the former Deputy Minister of the DHET Mr Manana told the captains of industry in Polokwane. In his address, the Minister emphasised the need for employers to play a significant role in artisan development and training by partnering with the TVET colleges and opening up their workplaces for experiential learning for young people (learners/ apprentices).

The majority of the participants agreed that the stakeholders play a critical role in the management of the apprenticeship programme by providing the workplace training. This suggests that the workplace training is a critical component of learning in the apprenticeship training. The colleges provide the theoretical training component while the stakeholders need to provide the practical training component. In the workplace, the apprentices are exposed to real-life situations. These include all aspects of the occupation such as ethics, safety, responsibilities and quality of work required by industry. This finding also suggests that the stakeholders have workplace training expertise in the management of the apprenticeship programme that the colleges lack.

It can be concluded that the provision of the workplace training is vital in the apprenticeship training because it is compulsory for the apprentices to complete practical work experience in order to obtain a 'red seal' qualification in becoming a qualified artisan.

4.2.1.3 Placement of the apprentices at the workplace

In this category, the participants were asked to indicate what they perceived as the role of the stakeholders in the management of the apprenticeship programme. The majority

of the participants in this study expressed the views that the most critical role of the stakeholders was the placement of the apprentices at workplaces.

PM2 revealed that:

> *"Over and above that industry as another stakeholder in terms of providing work placement experience as much as colleges can do in terms of offering an institutional experience"* (PM2).

PM1 made a valuable remark that:

> "*In my opinion, the external stakeholders is the industry, government departments, NGOs, and NPOs because in terms of placing our students in getting workplace and development we need all these institutions to assist us, so their role is to make sure that our students are trained and they understand the operational activities of the workplace" (PM1).*

In relation to the role of the stakeholders, CM1 offered this view:

> *"The student support unit can't place the apprentices because they got no clue of what is happening. They help in some cases; they work with an engineering person that is involved in the placement" (CM1).*

The above excerpt implies that there are two placement centres in the colleges, one for business-related studies, and the other one for engineering studies including the apprenticeship programme. Therefore, it can be concluded that placement of learners in TVET colleges is fragmented.

Another dimension in the role of the stakeholders in the management of the apprenticeship programme was expressed by DPA1 as follows:

> ***"****The role of the community is to assist with work placement" (DPA1).*

According to Bush et al. (2009, as cited in Mashaba, 2012:103), the term 'community' refers to all organised stakeholders, whether statutory (e.g. government departments) or non-statutory (e.g. business communities) with an interest in learner achievement.

In this study, community refers to all the stakeholders involved in the management of the apprenticeship programme.

The finding is consistent with the White Paper for Post-School Education and Training (DHET, 2013). According to the White Paper, colleges should be rooted in their communities. The HRDC (2014:7) further argues that the local TVET colleges and stakeholders (companies, SETAs, business chambers, local authorities, social partners, and social groups) are jointly able to better identify and anticipate skills needs and deliver them according to local expectations of both students and firms. Local communities boost student internship opportunities.

This research finding on the role of the community in the placement of the learners at the workplace confirms Onduru's (2012:42) research findings about the relationship between the local community and the college. According to the findings, the college is meant to benefit the community directly. Hence, a relationship of co-existence should be created between the college and the community.

Given the findings highlighted above on the role of the community in the placement of the apprentices at the workplace, the researcher aligns himself with the findings. Firstly, the community supplies the college with learners, workers and resources needed. Secondly, where the parents are not involved in the management of the college, their prospective contribution might otherwise remain hidden and therefore underutilised for the good of the college. Thirdly, the community can assist with the creation of a healthy climate in different ways; for example, it can provide direction regarding the recruitment of volunteers to help at college functions and provide learning opportunities for learners (apprentices).

In highlighting a relationship of co-existence between the college and the stakeholders, in his keynote address at the launch of Quality Council for Trades and Occupations (QCTO) on 23 February 2010 at Gallagher Estate in Johannesburg, the former Minister of Higher Education and Training, Dr Blade Nzimande, said:

> *"We know now that college training is, on its own, not enough. If work training does not complement the learning done at colleges, we could*

well find that the youngsters we work so hard to train remain unemployed after they qualify."

The former Minister implied that the colleges offer a theoretical training component with limited practical training. If the stakeholders do not provide workplace training for the apprentices, they would not be able to complete their trade tests and become qualified artisans. Consequently, they would not be able to compete for skilled employment.

The former Minister of DHET, Mr Mduduzi Manana in his address on the partnership between the employers and the TVET college held on 28th and 29th January 2016 in Polokwane stated that one of the objectives of his department was to see SETAs opening offices in public FET colleges in order to facilitate work placement. In addition, the former Deputy Minister of DHET also told employers that the SETAs play a vital role in facilitating workplace learning partnerships between employers and educational institutions.

The findings supported by the literature review are an indication of the critical role played by the stakeholders in securing workplaces for the apprentices. The findings further emphasise the importance of the workplace learning component in the apprenticeship training.

The next section deals with the second theme established in this study, namely, systemic barriers to the apprenticeship programme. In this theme, categories and sub-categories and possible innovative strategies to deal with the challenges are discussed.

4.3 SYSTEMIC BARRIERS TO APPRENTICESHIP PROGRAMME

The participants' views on the systemic barriers to the management of the apprenticeship programme can be clustered as: Lack of monitoring of the apprentice at the workplace; inadequate resources (i.e. unavailable training material, shortage of equipment of modern technology, and poor training facilities), insufficient workplace training; poor quality of recruited learners; insufficient funding; lack of professional capacities of supervisors at the workplace; low-quality curriculum; evolution of apprenticeship legislation; and poor physical facilities.

The ensuing section discusses these barriers to the management of the apprenticeship programme as they emerged from the main theme and the possible innovative strategies to overcome them.

4.3.1 Lack of Monitoring of the Apprentices at the Workplace

The participants were asked to explore the challenges that the stakeholders experience in the management of the apprenticeship programme. It was noted that most of the participants expressed their serious concerns about the lack of monitoring of the apprentices at the workplace.

The CM1 explained that:

> *"The big challenge is monitors in the workplaces, monitoring the workplace effectively. From the college point of view, we don't have really a person that can monitor the workplace. We have got the artisan but who do not always understand the process of monitoring"* (CM1).

Sharing similar sentiments, PM1 stressed that:

> *"Colleges lack the capacity to monitor and evaluate. We do place students in industries, government departments but we do not visit them, we do not monitor their progress. I think that's a major challenge. We rely on log books and supervisors there". (PM1).*

FG1 corroborated:

> *"We have challenge with the auto-training. When we send them back they come back to us, they tell us there is nothing they have done. They sit the whole day by the municipalities used to clean gardens. There is no feedback on on-job-training and no supervision" (FG1).*

The above findings imply that monitoring of the apprentices at the workplace is unstructured, weak and carried out on an *ad hoc* basis. It can be concluded that the colleges are not entirely in charge of the management of the apprenticeship programme. Furthermore, they are also not aware of the capacity of the host employers to provide workplace training, the quality and the practical knowledge of the training

the apprentices receive, or the compliance of the employer with the training regulations.

The expression of these concerns clearly reveals how participants felt with regard to lack of monitoring of the apprentices at the workplace. The findings are consistent with the views of Woldetsadik (2013:67) that the mechanisms for monitoring the quality of workplace training were found to be few and weak. Even if they exist, they do not let trainees prepare a report on their practical training signed by the receiving firm, and sometimes the college may not be in contact with the firm.

However, the criteria for monitoring firm-based training were weak in general. Even the legal framework regulating workplace training was weak as there was no contract signed between the receiving firm and the provider. Tshilonamulezhe, Coetzee and Masenge (2013:4) assert that there is a lack of structured and sufficiently monitored practical work exposure as well as exposure to the trade, particularly in the case of apprentices in the workplace. The quality checks were found to be superficial: checking policies and procedures, but not thoroughly checking what is actually happening during training. The primarily paper-based checks were found to be insufficient or non-existent.

In relation to lack of monitoring of the apprentices at the workplace, Garraway, Bronkhost and Wickham (2015:4) indicate that the rules at the workplace are mostly linked to production, and are determined by the workplace. With production, the focus is on timelines and project completion. In other words, the culture of the workplace is determined by getting a job done, rather than by a focus on student learning or curriculum. Workplace supervisors maintain that their responsibility is to make sure that they complete the project on time and with a high quality of workmanship. They do not see monitoring the apprentices as their role.

The finding suggests that lack of monitoring of the apprentices at the workplace is attributed to a number of factors. On the one hand, the industries are production and profit-oriented. Hence, they are not willing to make available the supervisors for monitoring purposes. On the other hand, the industry does not show commitment to improving the management of the apprenticeship programme.

FG2 indicated the following:

> "*We still have SETA funded students coming with Grade 12, non-technical Grade12 over our recommendations and the minimum requirements. Is it the problem between the SETA and us I do not know. The students come without 'N' courses which is the theoretical part of training. These students make the training difficult because it is hard for them to understand"* (FG 2).

CM3 highlighted the challenge as follows:

> "*Whether when the learners go to the workplace, they are able to meet the requirements in terms of the logbooks for example whether they can complete practical portion at the workplace that is one critical point we have got. The other challenge with us is we should be able to send staff to all those different workplaces to ensure that they did meet the regulation in terms of learners needed to cover so much in an area on a specific knowledge item. Let us say for example the learner needs to do transformers, whether they have the transformers that the learner must do if not you will never know. What is it they are doing about it. In terms of the logbooks they can agree with the learner to sign so that he/ she can finish training" (CM3).*

4.3.2 Inadequate Resources

The analysed data that emanated from the participants revealed that the stakeholders experience a problem of limited resources. The shortage varied in degrees of severity. The majority of the participants pointed out that their colleges were lacking in the following resources: training material, modern technology equipment, and training facilities. The ensuing paragraphs discuss the concerns of the participants.

4.3.2.1 Non-availability of training material

The data gathered from the interviews revealed that training material is the most significant challenge facing the stakeholders.

PM3's view was depicted in the following paragraph as:

> *"The learning material is key across all trades, the review of that, the ETQA it takes time in making the learning material available, the training providers or trainers have to scavenge the training materials from industry whereas the SETAs have the role of ETQA to play. Some SETAs will make material available; some will not make it available, some will make available for review time. So, the biggest challenge is training material" (PM3).*

CM3 cited the following complaint and elaborated that:

> *"The very same consumables that you must deliver you can't get, you put in two or three or four or five requisitions for the same item. You wait for weeks for some of those things and finally when you got it can even sometimes wrong things because the people that are dealing with these things are not an expert in this field"* (CM3).

FG2 remarked that:

> "*Learning material should be aligned with SAQA and also the different SRAs. They need also to make sure that learning material is aligned to curriculum of what the companies are calling for"* (FG2).

FG1 interview indicated that:

> "*Material is not sufficient. If you say let's get material, they say there is no money"* (FG1).

It was quite clear from the interviews that most of the participants argued that training material was critical in the management of the apprenticeship programme. As highlighted in the above excerpts, non-available training material can hinder the effective management of the apprenticeship programme. This suggests that the apprentices at TVET colleges receive poor quality training. This also implies that there are administrative problems that need senior management's urgent attention. It can be concluded that the availability of resources, both human and physical, is vital in any

training, and the availability of adequately equipped workshops in apprenticeship training is one of the most critical.

4.3.2.2 Shortage of modern technology equipment

In this category, the participants' opinion was sought in reference to the challenges hindering the management of the apprenticeship programme. Most of the participants indicated shortage of modern technology equipment as a challenge.

P1 cited the following challenge:

> *"The other challenge is in terms of resources. I don't think that colleges are adequately resourced, its equipment which are outdated but also in terms of personnel we still have people that are in the system that left other institution of learning where they were working some 10-15 years back and they've never develop further to say how do they then adapt to the new technological changes that are happening is a challenge. When we train, for instance, the Minister will make an example that TVET colleges are still training people on how to fix Valiant and yet none of these cars produced today still have carburettors" (P1).*

FG1 interview highlighted the challenge that:

> *"This year we receive for example tools, we did not order them, we had to return them or exchange them. This cost money and time"* (FG1).

Only one principal raised the concern about the shortage of modern technology equipment. This could be atrributed to the fact that the other two principals' apprenticeship workshops were upgraded to world-class workshops. Therefore modern technology equipment was not always a challlenge in implementing and managing the apprenticeship programme. The researcher's view was supported by PM1 in the following quotation:

> *"In terms of being innovative, I think we were innovative by using the money to build up to standard you know, top of the range workshop which really work better for us now" (PM1).*

The researcher understands that the apprenticeship training is design to involve a dual system whereby the apprentice spends 70% or 80% of the instruction time in the workplace (industries/firms) and 20% or 30% at the college. If equipment and facilities are lacking at the training institutions and the apprentices are being trained with the machines and tools that are not the replica of the work environment, the possibility of producing 'half-baked' apprentices is high.

The finding could be ascribed to the fact that most of the TVET colleges, formerly known as state-funded colleges, inherited poor infrastructure, resources and staff establishments. It is expected that these colleges should expand and deliver new modern programmes such as apprenticeships. Despite these challenges, the TVET colleges that offer apprenticeshipship programmes are under tremendous pressure to deliver on their mandate to produce at least 30 000 artisans a year. Therefore, it can be concluded that the shortage of modern technology equipment has an adverse effect on the training of the apprentices and the apprenticeship programme.

The researcher holds the view that the TVET colleges could manage the apprenticeship programme efficiently and effectively if the workshops were equipped adequately with modern technology equipment that guarantees sustainable skills.

4.3.2.3 Poor training facilities

The participants were asked to explore the challenges that stakeholders experience in the management of the apprenticeship programme. Participants unanimously concurred that one of the challenges of managing the apprenticeship programme is inadequate training facilities. This challenge hinders effective management of the apprenticeship programme.

PM3 mentioned the following challenge:

> *"I think, to be honest with you the Department of Education is not playing a role in the infrastructure of those workshops. The funding that was made available was for NC(V). They are not in an up to the scratch state. I think in the North West Province there is only one TVET, which has a training centre, which is compatible in training and testing of artisans, and*

this training centre has been inherited from the previous private company that used to train artisans. The state is not up to the standard of training and testing artisans. It is only meeting the minimum requirements of NC(V) training which is also not sufficient" (PM3).

DPA 1 remarked that:

"*Our facilities need to be looked at but money, money" (DPA1).*

The above excerpts imply that the college recapitalisation in 2006-2009 was not adequate to upgrade the training facilities. With regard to lack of the training facilities in the colleges, Cosser, Kraak and Winnar (2010:62) and Matea (2013:93) reported that the last time the training facilities were upgraded was in April 2005 when the South African government announced an allocation of R1.9 billion for the recapitalisation of FET colleges. The college recapitalisation grant aimed to improve delivery of vocational education programmes so that they would become responsive to the needs of the industries, and cater for youth who are Not in Education, Employment, and Training (NEET). Specifically, the grant was primarily aimed at improving infrastructure, acquisition of equipment, development of a new curriculum, and skilling of human resources. Maclean (2011:11) observes that a perennial problem in the FET is the high cost of equipment, and a scarcity of classrooms, textbooks and ill-equipped workshops with outdated equipment instead of state of the art equipment.

The researcher holds the view that the shortage of resources is likely to continue unattended in the identified research sites. The reason is that during the interviews, there was no indication of commitment from the senior management to upgrade the training facilities. This notion is attributed to the fact that the occupational programmes (apprenticeships, learnerships, and skills programmes) constitute 20% of the colleges' core business. These programmes are non-ministerial, meaning that the DHET does not fund them. The colleges obtain income from the profit generated from the training.

To minimise the challenge of inadequate resources such as workshop equipment, learning material and consumables, PM1 suggested the following as possible solutions:

> *"I believe that external stakeholders because we have workshops they should also be responsible for donating some machines to TVET colleges; so, because we understand that technology changes now and again. We might have machines that are outdated that we are using only to find that when our students go to their organisations, their industries, their companies, they are not able to perform to the level they are expecting because of the old machines they are using. We expect them to do that and we also expect them to act maybe as guest lecturers sometimes"* (PM1).

From the above excerpt, possible solutions to the challenges of managing the apprenticeship programme, namely, donation of machines by external stakeholders and staff development, are mentioned.

The solution on the donation of the machines by the external stakeholders is consistent with the literature. Matea (2013:70) suggests that the colleges should lease workshop equipment rather than buy it. The risk of buying is that equipment becomes outdated and irrelevant to labour markets as technology advances and changes. Further, equipment is expensive to maintain once its warranty expires. Therefore, the expensive equipment should be leased when the need arises rather than be purchased. As a result, the colleges would no longer be responsible for the expensive maintenance of the equipment and they would have access to the latest equipment in the markets.

The other solution like guest lecturers implies that there is a need for ongoing staff development to enhance the relevant knowledge and skills of the apprenticeship lecturers. Papier (2011:106) maintains that the TVET lecturers are either vocationally qualified or professionally qualified but not both. This implies that public TVET colleges' lecturers hold qualifications which are inappropriate.

In addressing the problem of the inadequate resources in the TVET colleges, the former Minister of Finance, Pravin Gordhan, acknowledged several issues:

- The TVET colleges are not in good shape;
- Management is not effective;

- The curriculum is not responsive to industry needs; and
- Infrastructure and the quality of the teaching staff leave much to be desired (SABC2 Morning Live, 23 February 2017).

In the same breath, he appealed to the management of the TVET colleges to make sure that their institutions were functional. The Minister further indicated that the problems above would be addressed over the next three years.

4.3.3 Insufficient Workplace Training

The data collected from the unstructured individual interviews revealed that the majority of the participants indicated inadequate workplace training as another hindrance to the management of the apprenticeship programme.

PM3 insisted that:

> *"The industry has the major role to play, provide the apprentices with workplace training"(PM3).*

The above interview excerpt was corroborated by P1 who said the following:

> *"What we have observed is that some of the levy payers do not mind to 1% skills levy, but they would not open their doors in terms of allowing the colleges to bring their apprentices. Now the fact that they have contributed 1% does not mean anything as long as they do not open their doors for training it becomes useless for us if I may use this term" (P1).*

PM3 emphasised this challenge:

> "*The other challenge is the workplaces, the issue of the workplace, the reluctant of the host employer or industry in absorbing learners into their training spaces, some of them have fear of the issue of liabilities, injuries especially the mines, some say they impede on their production because it is not incentivised" (PM3).*

Inadequate workplace training implies that TVET colleges produce apprentices who are not exposed to an authentic learning environment in completing the practical

component of the training. This also implies that some of the apprentices may complete the theoretical component but struggle to get workplace training. Therefore, this corroborates the perception of some of the employers that the TVET colleges produce artisans of poor quality.

This finding contradicts the SDA that states that a person who has completed NC(V) or any other learning programme resulting in an occupational or vocational qualification must complete a period of prescribed work experience before they are entitled to sit for a trade test (cf. 2.3.2).

In relation to this notion, the literature review reveals that the former Minister of Public Service and Administration, Fraser-Moleketi (2008), argues that it is through the SDA that employers are expected to ensure that the workplace environment can provide work-related experience to entrants. More importantly, the workplace contributes immensely to the transferring of skills through experiential learning.

The participants were asked to suggest innovative strategies to deal with insufficient workplace training for the apprentices. From the empirical investigation gathered most of the participants suggested the following strategies to deal with insufficient workplace training.

CM2 expressed the following:

> *"The learner should be allowed to move between various employers to complete his/her in-service training. It will allow the learner to learn to get training; it will allow the learner to get the required number of months required for the trade test. Whereas the learners stick to one employer and that employer only train the learner when there is a break-up" (CM2).*

The above-cited quotation suggests that the training contract that the apprentice sign between the college and the host employer should make provision to change the workplace training should the need arise.

DPA1 concurred and expressed the following opinion:

> *"Get the Small Medium and Micro-Enterprises (SMMEs) involved in the training, to let the company understand what the importance of hosting and training the students. The company takes the ownership of the students from an early age and that the students can basically grow up in this company" (DPA1).*

As highlighted in the above excerpt, it is clear that, when given an opportunity, SMMEs would be able to provide workplace training and help to address the challenge of inadequate workplace training.

In a study conducted by Malale and Sentsho (2014:683), it emerged that students who were placed with SMMEs were afforded more opportunities than at big businesses where they might sit and do nothing. The students reported that in the townships or villages many customers bring their cars for repair, so they had enough practical experience.

The researcher holds the view that insufficient workplace training for the apprentices could be ascribed to an obsolete apprenticeship curriculum and the new NC(V) which is the feeder to the apprenticeship training. Employers perceive that the NC(V) curriculum as not industry-specific and lacks foundational knowledge for the preparation of apprentices and artisan development. Instead, they see the NC(V) curriculum as academic programmes preparing the students to study in institutions of higher learning such as universities, or creating employment opportunities. On the other hand, the dilapidated infrastructure, insufficient resources and poor industry participation in curriculum development also contribute to the employers' reluctance to make their workplaces available for learning and training.

The researcher observes that not all companies might be ready to take apprentices into their workplaces. Moreover, they might not have an adequate work environment or the internal organisational capacity that would allow the intake of novices to be trained and supervised.

4.3.4 Poor Quality of Recruited Learners

The participants were asked to share their views on the challenges that the stakeholders experience in the management of the apprenticeship programme. The analysis of the interview data revealed that most of the participants were concerned about the quality of the learners selected for the apprenticeship training.

FG1 interview remarked.

> *"We have to chase numbers, and we have to produce something like 20 000 artisans within the next three/four years"* (FG1).

FG3 agreed that the learners recruited into apprenticeship programme are of poor quality:

> *"We still find that between some SETA funds we have students coming from Grade 12 with non-technical qualification, so our recommendations and minimum requirements are the problem between the SETAs and us"* (FG3).

FG1 interview remarked that:

> "*There is no link between the high school and the TVET with regard to the training of the apprentices. The intake of students is not up to standard"* (FG1).

The aforementioned findings may be attributed to a number of factors. Firstly, the TVET colleges do not have a structured recruitment and selection guideline that the candidates go through before becoming the apprentices. Secondly, the TVET colleges are meant for learners who academically under-achieve in the basic education school sector. These learners seem to struggle to succeed in apprenticeship training. Thirdly, there is no link between vocational education in the secondary schools and the TVET colleges offering apprenticeship programmes. So most of the learners who entered TVET colleges lack vocational education. Fourthly, the TVET colleges do not have on-course support for the learners from disadvantaged backgrounds.

4.3.5 Insufficient Funding

Regarding this category, the analysed data revealed that most of the participants indicated that inadequate funding was another vital challenge the stakeholders' experience in the management of the apprenticeship programme. In addition, the analysed data also indicated that the SETA-allocated funds were inadequate to meet the needs of the apprenticeship programme. The analysis of the interview data further pointed out that this problem was evident in all the colleges in this study. The researcher discovered that insufficient funding hinders the effective and efficient management of the apprenticeship programme because the colleges are not able to provide the resources needed.

CM1 expressed his opinion as follows:

> *"Another challenge is the funding norms we receive. Funding is always not sufficient. They have worked out the training of artisan is costing about R500 000, how much fund the SETA is providing us? R150 000. Then you must pay a stipend to the student. From that, we cannot pay them more because the funding we receive is limited" (CM1).*

As highlighted in the above excerpt, it is clear that the apprenticeship programme is inadequately funded.

P1 revealed TVET colleges' sources of funding of apprenticeship programme in the following quotation:

> *"At the moment we rely on SETAs funding as well as the National Skills Fund and these are the main streams of funding. Yes, we do find in our area that there are companies that are willing from their own coffers also to bring people that are already employed and it is not anybody that just come from the street and train from the college. Therefore, the funding is there, but it is not adequate. It's also expensive exercise to train and develop apprentices and if it's not adequately funded, then it becomes a problem for the institution" (P1).*

A similar sentiment regarding funding was expressed by PM1 as follows:

> *"It is also funding. Sometimes it is difficult to place them if there is no stipend. That is a challenge that affects both of us because they won't go to work if there is no stipend. That is why funding is a major challenging which impacts on accommodation and transport. Funding in terms of accommodation, PPEs, medical testing is all based on funding" (PM1).*

Insufficient funding of the apprenticeship programme could be attributed to the TVET colleges' funding model. Teofy (2011:43) and Zungu (2014:18) maintain that the National Norms and Standards currently govern the funding of the TVET colleges (Department of Education, 2009).

The researcher holds the view that SETAs perceive the TVET colleges as lacking capacity in terms of infrastructure, accreditation, management and administration to implement and manage the apprenticeship programme. They prefer to contract private providers to offer apprenticeships instead of public TVET colleges. The funding for the delivery of apprenticeship programmes is limited and remains a challenge.

Therefore, it can be concluded that the funding of the apprenticeship programme was a challenge that needs urgent attention. The researcher contends that insufficient funding for the apprenticeship programme will continue to pose a challenge to TVET colleges. This is attributed to the fact that during the interviews none of the participants indicated innovative strategies that the colleges might employ to augment the current funding norms and standards. In addition, there were also no suggestions for developing the apprenticeship programme into a sustainable programme. The funding of the apprenticeship programme is left to the SETAs and government departments.

4.3.6 Lack of Professional Capacity of Supervisors at the Workplace

Participants revealed that supervisors who do not have professional qualifications did the supervision of the apprentices at the workplace. As a result, this impacts negatively on the management of the apprenticeship programme.

In relation to lack of professional capacity of supervisors at the workplace, FG3 explained as follows:

"What is happening here now is you give apprentices to a person and that person is not a good artisan himself or herself and these apprentices are put under somebody in front and is not a good artisan and they start learning the bad ways. There needs to be a control in the workplace" (FG3).

CM3 indicated that:

"*One of the challenges is that you must have dedicated people that can do that and also the resources. You have a staff member but you do not have a transport to do different workplaces" (CM3.*

DPA1 claimed that:

"The workplace itself that is for me a problem because I do not think that everybody is paying attention to it" (DPA1).

PM3 maintained that:

"If the workplace is not monitored by the institution, those learners will be frustrated in doing duties and tasks that are not related to their trade. If there could have been the workplace monitor who is doing that on the full-time basis that could be easily picked up. Now those are picked up after they have gone beyond the extreme period and the intervention in most cases is late by institution because the learners are losing time" (PM3).

The findings from the above quotations imply that supervisors who lack professionalism and pedagogical skills supervise the apprentices at the workplace. Their conduct is not monitored. Therefore, it can be concluded that the apprentices at the workplace emulate the unacceptable conduct of their supervisors. This conduct compromises the quality of the training and the apprentices that the workplace produces.

4.3.7 Low-Quality Curriculum

Participants perceive outdated curriculum as one of the systemic challenges to the management of the apprenticeship programme. This challenge hampers the effective management of the apprenticeship programme in TVET colleges.

P1 was disgruntled about the outdated curriculum and expressed his feelings as follows:

1. *"Coming to the TVET colleges, I think we are more challenged in as far as the curriculum is concerned. There needs to be a curriculum review. I feel that part of the curriculum is way outdated. When we train, for instance, the Minister will make an example that TVET colleges are still training people on how to fix Valiant and yet none of these cars produced today still have carburettors. I think our curriculum is outdated, needs to revised"* (P1).

PM3 described the apprenticeship programme curriculum as follows:

> *"The apprenticeship programme is still using or prescribing an outdated curriculum as access towards trade test. Let's us look at the N2 curriculum that has been there sometime and it has not been reviewed but it is still used as an access to trade testing so, the curriculum has not been reviewed for a long time and to me that is a challenge because how do you expect a learner to be compliant with the recent technological changes when the curriculum is outdated"* (PM3).

The findings are consistent with the findings of Allais (2012:3) and Malale and Gomba (2016:282) who indicate that a persistent problem in TVET colleges in South Africa is the low quality apprenticeship curriculum that continues to be offered although it is not responsive to the needs of the industry.

It is worth noting that some of the principals and deputy principals academic service did not comment about the obsolete apprenticeship curriculum. This could be ascribed to the fact that in South Africa the TVET colleges are macro-managed by the DHET. This implies that everything is done and controlled by the DHET with little invovelment of the TVET colleges leadership. In the main, the college principals do not regard themselves as the leading forces in curriculum change. The researcher is of the opionion that there is lack of curriculum leadership on the side of the TVET colleges.

The researcher is also of the view that there is lack of curriculum leadership on the side of the SETAs and the National Skills Fund (NSF) which is a Directorate of DHET. The SETAs and NSF continue funding the obsolete apprenticeship programme curriculum. This seems to be wasteful expenture of public funds because the apprentices are unable to get workplace learning as the employers are sceptical about the apprenticeship curriculum. The apprentices also battle to study in higher education institutions such as the universities because the apprenticeship curriculum lacks articulution.

4.3.8 Evolution of Apprenticeship Legislation

The TVET colleges are currently governed by numerous Acts. The majority of the participants concurred that the evolution of the apprenticeship legislation has had a negative impact on the effective management of the apprenticeship programme. With regard to the evolution of the apprenticeship legislation CM1 offered the following insight:

> *"Another challenge…industry do not always know what all the changes in legislation with regard to artisan training" (CM1).*

A similar sentiment was expressed by PM3 in this excerpt:

> *"I would say the sector is new in the sense that there has been an evolution in terms of legislation; there are new challenges that are coming. Right And you find that there is disjuncture in terms of what is required by the management and DHET and there is also a disjuncture in terms of the expectations of the workplace and the SETA" (PM3).*

P1 emphasised that evolution of apprenticeship legislation is a challenge that hinders the effective management of the apprenticeship programme. This sentiment was expressed as follows:

> *"It is also the issue of regulations and how they're implemented and I will make an example of a good document that was signed at NEDLAC called Skills Accord if you look at the document and what is the target that was set out. The moment we engage with the local industry none of them has got an idea of what we are talking about. So, at the national level, business is aware, but when it comes to this level, they are not aware" (P1).*

The researcher believes that there was a need for legislative changes. These changes were a step in the right direction taking into consideration the evolution of the apprenticeship programme in South Africa. Some of the major legislative changes included the establishment of the DHET which brought all post-school education and training institutions under one ministry in order to build a single and coherent, articulated post-school education system. The White Paper for Post-School Education and Training is the latest legislation which is significant in the management of the apprenticeship programme, and saw the establishment of the National Artisan Development System.

In view of the above findings, it can be concluded that other stakeholders are not conversant with the legislation that regulates the management of the apprenticeship programme. Given the fact that some of the stakeholders are not familiar with the legislation that regulates the apprenticeship programme, the researcher sees a need for advocacy training for all stakeholders.

4.3.9 Poor Physical Facilities

The data collected revealed that the management of the apprenticeship programme was conducted in a poor physical environment, which did not promote, but rather discourages lecturers and students. As Baliyan (2016:156) argues, physical characteristics of the college are an important factor that students consider essential

when choosing an institution of higher learning. The attractiveness is an important factor.

In this sub-category, the participants were asked to explore the challenges that the stakeholders experienced in the management of the apprenticeship programme.

CM3 expressed complaints regarding poor physical facilities as follows:

> *"You know your premises are the eyes of the institution. I can show you in black and white how I have just battled to get them to come and clean the yard. I am not talking about a week or two weeks or three weeks. I am talking literally months that I have been asking to come and help me.so that they can get it clean. It is not only that it is a lot of other things for example to get SMT, but they also come here and sit here, they agree in principle, you know what? We can see that it is very hot here, that your place is" (CM3).*

The researcher argues that the challenges in the selected colleges cannot be expected to be identical. The challenge in Vuselela may not be the same as in Majuba. However, even though there are differences within the colleges or campuses, the provision of the apprenticeship training is mandatory and the proper management of the apprenticeship programme is imperative.

As expressed in the quotation above, poor physical facilities in TVET colleges are an indication of the ageing infrastructure and lack of college maintenance plans. The data gathered through the interviews revealed that only one participant raised concern about poor physical facilities of TVET colleges. This suggests that some participants did not complain about poor physical facilities merely because the facilities on their campuses were at the acceptable level.

4.4 STRATEGIES FOR DEVELOPING SUSTAINABLE APPRENTICESHIP PROGRAMMES

4.4.1 Strengthen Partnerships Between the Colleges and Industry

The TVET colleges lack the capacity and credibility to engage with industry on equal terms. On the other hand, the employers are reluctant to work with the colleges. They do not have faith in the colleges' ability to produce quality graduates.

The researcher holds the view that the college and industry partnerships initiative would facilitate and support collaborative relationships between companies and colleges. The reason for this view is that there would be a closer alignment between the training provided by the colleges and the needs of employers. It will also increase capacity in the college so that they can respond more effectively to the needs of the economy.

Participants in this study unanimously revealed that numerous challenges characterise the management of the apprenticeship programme. The participants further suggested the strategies that can be employed to enhance the quality of managing the apprenticeship programme. These strategies are discussed in the subsequent sections.

The participants were asked to respond to the question that sought to explore the strategies to enhance the quality of managing the apprenticeship. The data gathered from the interviews revealed that most of the participants were of the view that there was a need to strengthen the college-industry partnership.

This feeling was expressed by P2 as follows:

> *"I think strengthening the partnership with the industry with the external stakeholders. It should be done continuously because the other problem that we had before was that if you don't have the exposure to the industry knowing exactly what it is required"* (P2).

P1 expressed the view that:

> *"Not all TVET colleges have got a strong partnership with industry and it depends on where the institution is located, for instance, our Richard's Bay Campus which is in Richards Bay in an industrial town. So, it is easier for us to secure partnership, but for a campus of the same institution that happens to be 50 or 100 kilometres away from the city or the main city, we find [it] very difficult to train apprentices. Yes, you will find that in those areas we have some other departments, be it the municipalities and so forth but it will not be at the same magnitude as the people here at Richards Bay"* (P1).

The aforementioned quotations are consistent with the White Paper (2013c:12) which states that the DHET's highest priority is to strengthen and expand the public TVET colleges so that they become institutions of choice for a large proportion of school leavers. Key objectives in strengthening colleges include improving access, student support services, strengthening governance, building partnerships with employers and other stakeholders, increasing the responsiveness of colleges to local labour markets, and improving placement of college graduates in jobs.

The above assertion in the White Paper (2013:12) suggests that there is a need to strengthen the existing partnerships between the colleges and industry and forge new partnerships where they are non-existent because the employers are fundamental to the success of apprenticeship training.

Having discussed what entails college and industry partnerships, the value these partnerships would add both to the colleges and the industry, the responses of the participants regarding strategies for sustainable apprenticeship programmes, the next section turns to developing an apprenticeship guide.

4.4.2 Develop Apprenticeship Training Guide

The apprenticeship training guide is designed to help the apprentice to better understand his or her role in the apprenticeship training, including competency based training and assessment process (Bendigo TAFE, 2015:3). The apprentice and

employer negotiate and agree on the training and assessment that will take place during the apprenticeship training. This agreement is known as the training plan and it outlines all the training and assessment required for qualification. The guide entails some of the following:

- It establishes a contract with the apprentice regarding institution policy requirements and procedures,
- Lists the topic to be addressed in each lesson, and the work to be done by students outside of class,
- It sets the tone for the module by clarifying the roles of the instructor and the apprentice,
- Determines the administration of the individual training plan by keeping records of training and assessment (Bendigo TAFE, 2015:3).

Participants revealed that the outdated apprenticeship training guide or the absence thereof hindered the management of the apprenticeship programme in TVET colleges. The colleges continued to train apprentices without a training guide. In some instances, the lecturers use learnership guides or devise their own internal plan. These *ad hoc* arrangements compromise the quality of managing the apprenticeship.

FG3 revealed that:

> "*We don't work with the training guide as such, we don't have a training guide, and we used to have one" (FG3).*

FG2 remarked that:

> *"Although we are using modular based, the electrical section is still using unit standard based. The modular one and the unit standard one is the same thing. The cable joining in modular one and the unit standard is still cable joining. We understand that training guide spells out exactly what you going to train and what you lecture should consists of. We have as I say course plan not training guide per se"* (FG2).

PM3 expressed a similar sentiment regarding the non-availability of the apprenticeship training guide as follows:

> *"Every SETA has its own guide which is not standardised and it depended on SETA to SETA and college to college. The SETAs will make it available and the college will adopt it. There is no standard training for apprenticeships training at this point in the institutions" (PM3).*

DPA1 remarked that:

> "*We do have what can I call it, we have policy. We have, I am sure the operating procedures, and the project manager is on your list later he can comment on it. It is not totally finalised. But we getting there. But there is some kind of guide on how it must be done and how it is done" (DPA1).*

The findings imply that each college has its own training guide. This is likely to affect the management of the apprenticeship programme in which the standards and quality are likely to be compromised.

The empirical investigation revealed that the selected TVET colleges for this study do not have training guides. This is a serious concern as it impacts negatively on the management of the apprenticeship programme. The training guide should outline all the training and assessment required for the qualification and include expected start and completion dates of each competency.

4.4.3 Capacity Building and Empowerment of Staff

Matea (2013:11) argues that the professional development of TVET college lecturers has a history of neglect which resulted in the sector employing newly qualified artisans and technicians from industries and turning them into lecturers with neither professional pedagogic training nor technical practical experience.

The above assertion is supported by the Green Paper for Post School Education and Training (2012) which highlights the challenge as follows:

> "*College lecturers in technical fields have through the years been recruited from industry. They usually possess technical*

qualifications as well as workplace experience and knowledge, but little pedagogic training. Many lecturers in academic subjects like language, mathematics or science entered colleges with school teaching qualification but no industry experience. Many lecturers are also college graduates who have completed their N6 courses or graduates from universities of technology who have completed a National Diploma" (DHET, 2012:24).

The Green Paper implies that the TVET college lecturers are either underqualified or unqualified. This challenge needs to be prioritised and attended to.

Chetram (2017:6) maintains that capacity building and empowerment of staff, includes lecturers' improvement which expands the individual lecturer and expands his or her talents, thereby improving lecturers' mastery of the programme and their knowledge across their abilities in educating and aiding learning. Every individual at each level in their lifestyle ought to have lifelong learning opportunities to acquire the knowledge and abilities to satisfy their goals and lead to their success

There are successful TVET capacity building and empowerment initiatives of staff that are recognised in the international TVET community (HRDC, 2014:7). Some of the examples of TVET capacity building and empowerment of staff programmes are Vuselela TVET and Harrow partnership, and Orbit TVET and Harrow partnership (HRDC, 2014:7).

The empirical investigation revealed that the most of the participants were concerned about the state of the apprenticeship programmes in their respective colleges. They suggested a Continuing Professional Development Programme (CPD) for the managers and the lecturers in the TVET colleges as one of the strategies that can be employed to enhance the quality of managing the apprenticeship programme.

PM1 remarked as follows:

"I would say one in terms of managers themselves if there can be programmes that can assist managers specifically. Let's say now higher education institutions can now look at what other training programmes

can be there specifically directed at managing training programmes" (PM1).

CM1 offered the following insight into capacity building and empowerment of staff :

"Many colleges are sitting with persons not experienced enough and qualified enough to train apprentices. They have theoretical and university of technology diploma, they have got six months' industry experience. Now they must explain to students what is going on in the industry, they can't do it. Industry experience of lecturers is a challenge and to get to industry is also a challenge" (CM1).

FG3 expressed the following opinion during the focus group interviews:

"*I won't say retraining but constant training wherever the training officer feels, listen you need to look at the training in specific field, we must find and apply it for example on PLC that's ongoing system that keeps on changing, keeps on changing but I do not say you must on every second we go for training but especially in those technical things that keep on changing you need to get your training officers on training. If your training officers are untrained your quality of learners will be low" (FG3).*

Sharing the same sentiments FG2's interview indicated that:

"*As the technology improves we need to attend the workshops. How can we teach the learners if ourselves we are not familiar with the new technology. The main aim is to give learners the skills, so we need the skills to pass it on"* (FG2).

DPA1 emphasised that:

"We have exchange programmes for our staff to go. There is now people coming from Germany and then our staff will go to Germany to see how training is done. Yes, capacity building is also important. I think we need" (DPA1).

These findings are consistent with the findings by Shah, Rahman, Ajmal and Hamidullal (2011:984) that teachers are encouraged to develop themselves so that they are on par with the machinery and technology being used. This can be achieved through the capacity-building, staff-development programme that may include foreign visits, local industry visits and teacher in-service training.

Mgijima (2014:362) explains that continuing professional development is often associated with ongoing training activities that take place after the completion of initial training. A broader view is that CPD encompasses systematic activities to prepare lecturers for their job, including initial training, induction, courses, participation at conferences, seminars or workshops, and in-service training.

The above assertion is supported by the Green Paper for Post-School Education and Training (2012) which highlights the challenge as follows:

> *"College lecturers in technical fields have through the years been recruited from industry. They usually possess technical qualifications as well as workplace experience and knowledge, but little pedagogic training. Many lecturers in academic subjects like language, mathematics or science entered colleges with school teaching qualification but no industry experience. Many lecturers are also college graduates who have completed their N6 courses or graduates from universities of technology who have completed a National Diploma"*

4.5 CHAPTER SUMMARY

This chapter presented a detailed discussion of the empirical findings of this study. It also interrogated critical systemic barriers to the management of the apprenticeship programme in TVET colleges. The empirical investigation revealed that the apprenticeship programme was inadequately funded and the DHET should revise the funding norms so that the TVET colleges can achieve their mandate of producing 30 000 artisans by 2030, and play an important role in post-school education and training by addressing unemployment, poverty and inequality, 'the biggest enemies' of South Africa.

Another finding was that there is an obsolete apprenticeship curriculum which needs a complete overhaul and be replaced with new industry-responsive occupational programmes. Most importantly, leadership change management in TVET colleges is imperative as this would assist college management to facilitate and implement curriculum changes. Against the contextual factors revealed by the research findings in this study is the need to develop a standardised apprenticeship training guide for all the TVET colleges. This guide should be aligned with the new curriculum.

The next chapter provides a general overview of this study, a summary of key findings and recommendations drawn from these findings of this study. It also points out limitations and areas for further research.

CHAPTER 5

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

5.1 INTRODUCTION

The main aim of this study was to explore the management of the apprenticeship programme in selected TVET colleges in South Africa. The qualitative study was conducted with reference to the main aim and the following objectives:

(a) To determine the role of stakeholders in managing the apprenticeship programme in TVET Colleges in South Africa.

(b) To explore the challenges, if any, that stakeholders experience in managing the apprenticeship programme.

(c) To determine the possible innovative strategies to deal with these challenges.

(d) To explore the strategies to enhance the quality of managing the apprenticeship programme.

(e) To develop guidelines that may be used to enhance the effective management of the apprenticeship programme in TVET colleges in South Africa.

In the previous chapter, the qualitative empirical data was presented, analysed and discussed. The presentation and discussion of findings was supported by what the participants in the study said during interviews. This was done in order to defend the conclusions and recommendations that would be reached in this chapter.

5.2 SUMMARY OF MAJOR FINDINGS AND CONCLUSIONS

The literature review in the study showed that in the four selected countries the stakeholders play a prominent role in the management of the apprenticeship programme. According to the research findings , participants in the study also revealed that the stakeholders have a role to play in the management of the apprenticeship. The roles of theses stakeholders are briefly discussed as follows:

5.2.1 Funding of the apprenticeship programme

Findings from the literature review revealed that in Germany firms conduct the apprenticeship training. However, there is no direct financial transfer of public money into the apprenticeship training. The employers bear all the costs of the firm-based apprentices. These costs include, but are not limited to, wages of apprentices, costs for training personnel, infrastructure and recruitment. In Australia, the GTOS and the AACs fund the apprenticeship programme. The funding of the apprenticeship programme is done by the government of Botswana that pays 95% of the apprenticeship training costs and the trainees pay only 5%. In Ghana, the funding of the apprenticeship programme lies with the master or mistress who provides a 'training loan'. The parents or guardians also pay training fees for their apprentices. The funding of the apprenticeship programme by these stakeholders indicates support and commitment in the management of the apprenticeship programme.

However, the empirical investigation in this study revealed that the participants mentioned that they rely only on SETAs funding for apprenticeship training. The empirical investigation showed that the participants did not display awareness that funding of the apprenticeship training was not the responsibility of the SETAs alone. The employers, industry, private companies, and SOEs also fund the apprenticeship training. It can be concluded that what appeared to be lacking in the research finding was the participants' awareness about the sources of funding. This left a lot to be desired as most of the participants were college senior management.

Furthermore, the empirical evidence indicates that the TVET colleges grapple with inadequate funding in managing the apprenticeship programme in their respective colleges. In view of this, it can be concluded that inadequate funding contributes to lack of monitoring, irregular visits to workplaces, incurred costs for recruitment and administration, training material, and compensation for food or living expenditure. Moreover, inadequate funding also contributes to low quality training. As a result, the colleges need ongoing additional financial support in order to improve.

5.2.2 Conduct supervision and monitoring

It was established from the literature that in Germany the Chambers of Industry and Commerce, Trade Unions and Work Councils conduct supervision and monitoring of the apprenticeship training. More importantly, the chambers monitor the quality of the training, conduct mid-term and final examinations and the craftsmen's examinations. In Australia, the GTOs are responsible for induction of the apprentices, perform the employment function and assume the risk of keeping the apprentice employed for the period of the contract. The BQA conducts the supervision and monitoring of the apprenticeship programme in Botswana. The BQA regulates the work-based training standards to the level of skilled artisan, coordinates compliance, and formulates and reviews policies related to the apprenticeship training. In Ghana, the master/mistress plays the role of the supervisor for the apprentices. It can be concluded that this indicates that the stakeholders perform their roles effectively in supervising and monitoring of the apprentices at the workplace. Apprentices in the workplace may be faced with insurmountable challenges such as personal life adjustments, interacting with the new environment and the use of new technology. It is through supervision and monitoring at the workplace that the apprentices can adjust smoothly to real workplace learning. The data collected from the interview revealed lack of monitoring of the apprentices in the workplace. The participants were of the view that inadequate monitoring of the apprentices in the workplace impacted negatively in the management of the apprenticeship programme. This suggests that the apprenticeship programme is unsupervised and uncoordinated.

5.2.3 Inadequate Resources

Availability of both human and material resources in TVET colleges was found to be critical for effective management of the apprenticeship programme as established in the reviewed literature. The shortage of qualified workplace supervisors impacts negatively in the management of the apprenticeship programme. In most instances supervisors who are not qualified artisans supervise the apprentices. In addition, the TVET lecturers are either unqualified or underqualified. Some lecturers have industry experience without classroom teaching strategies. Others have classroom methodologies without industry exposure.

Findings from the empirical investigation also showed that lack of adequate resources was another major obstacle in managing the apprenticeship programme in TVET colleges. It was established from the empirical investigation that the stakeholders faced inadequate physical and human resources such as training material, modern technology equipment and training facilities. The provision of inadequate resources compromise the quality of apprenticeship training and the colleges end up producing apprentices of poor quality.

The empirical investigation also revealed that the apprenticeship training took place in a poor physical environment. Poor physical facilities manifests in the form of buildings, workshops and the physical environment. This finding may impact negatively on the morale of the staff, lecturers and the learners. This finding suggests that the maintenance of the infrastructure is not done at the TVET colleges. Moreover, this finding indicates that the colleges do not have an infrastructure maintenance plan.

The analysed data further revealed that some of these supervisors were not good artisans and the standard of education of some supervisors was low. This finding indicates that there is weak monitoring and evaluation system in the TVET colleges and at the workplaces. Accordingly, the colleges should pay attention to acquisition of occupational skills for the improvement of some of supervisors' professional qualities that could potentially affect the participation of the apprentices in the workplace.

5.2.4 Low-quality Curriculum

The literature review showed that TVET colleges still use the old curriculum to facilitate apprenticeship training**.** It was discovered from the empirical investigation that low-quality curriculum for the apprenticeship programme was another barrier in managing the apprenticeship programme in TVET colleges. The apprenticeship curriculum was characterised as outdated and of low quality, and not responsive to the needs of the industry. This finding indicates lack of curriculum supervision from the DHET and the SMTs of the colleges as the custodians of the apprenticeship programme. This can hamper the quality of training and the quality of the apprentices produced by the TVET colleges. This finding also suggests that the curriculum policy is not revised. It is recommended that the principal, the deputy principal: academic service, lecturers, and

the employers should manage the apprenticeship programme because it is assumed that they are experts in their own right.

5.2.5 Evolution of Apprenticeship Legislation

The literature review indicated that various Acts relevant to the management of the apprenticeship programme were promulgated. The legislation includes the Green Paper on Skills Development for Economic and Empowerment Growth in South Africa, SDA (No 97 of 1998), FET Act (No 98 of 1998), FET Act (No 16 of 2006), Green Paper for Post School Education and Training, and the White Paper for Post School Education and Training. The purpose of this legislation was to redress the skills development imbalances of the apartheid era, to resuscitate the apprenticeship training, and to improve the management of the apprenticeship programme. The empirical evidence gathered in the interviews showed that various legislation was put in place as intervention strategies to improve the management of the apprenticeship programme in TVET colleges. However, there was always the disjuncture in terms of what was required by the college management, the DHET and workplace expectations. This finding indicates that the stakeholders are not conversant with the legislation that regulates the apprenticeship programme. In view of this, it is recommended that relevant stakeholders should be adequately trained on the application of this legislation. Furthermore, it is recommended that whenever the new legislation and/or initiative is promulgated intensive and extensive advocacy workshops should be held with the relevant stakeholders right from the beginning. It is not like these workshops are not held; rather, they do not address what the stakeholders want and for this reason the stakeholders have found the workshops to be a waste of time.

5.2.6 Strengthen Partnerships between the Colleges and Industries

From the literature review it was discovered that weak linkages and partnerships between colleges and industry hampered the management of the apprenticeship programme. The TVET colleges are unable to secure sufficient workplace learning for the apprentices because of weak stakeholder engagement. The finding from analysed data indicated that there is a need to strengthen the partnerships between the colleges and industry with the view to enhancing the quality of managing the apprenticeship

programme. It can be concluded that partnership between the colleges and industries can assist to address challenges such as insufficient workplace training, inadequate funding and inadequate resources. The partnership between the colleges and the industry can also create the apprenticeship programme that would be responsive to the needs of the labour markets.

5.2.7 Capacity Building and Empowerment of Staff

According to literature review there are two cohorts of lecturing staff in TVET colleges. The first group are the lecturers who have industry experience but lack classroom teaching strategies, and the second cohort are lecturers who have teaching methodologies but lack industry exposure. The findings from empirical investigation revealed that the TVET colleges should continuously provide training to the lecturers to keep them on par with educational development and innovations. The lecturers should also strive to improve their qualifications. The staff development should be an ongoing activity after the completion of initial training. This finding suggests that, through CPD, the colleges can improve the qualifications of lecturers who have industry experience but lack classroom teaching strategies and the lecturers who have teaching methodologies but lack industry experience.

5.4 CONCLUSIONS

The main aim of this study was to explore the management of the apprenticeship programme in TVET colleges in South Africa. In addition, the study sought to develop guidelines that may be employed to enhance the role of the stakeholders in the management of the apprenticeship programme.

This study raises important issues that have implications for quality management of the apprenticeship programme. The study revealed that the management of the apprenticeship programme constitutes the primary responsibilities of the following stakeholders: SETAs, QCTOs, NAMB, College SMTs and middle management. However, the findings suggest that these stakeholders are beset by poor governance and mismanagement, underperformance and ineffective use of public resources. This hinders stakeholders from executing their responsibilities in managing the apprenticeship programme.

The management of the apprenticeship programme in TVET colleges requires the active engagement of the stakeholders. However, the involvement and participation of the employers in the management of the apprenticeship programme in TVET colleges was found to be *ad hoc*. This was attributed to the fact that the legislation is not enforced on the side of the industry to participate in apprenticeship training.

The management of the apprenticeship programme in TVET colleges need college and industry collaboration. The college and industry synergy is critical in the sense that the employers should avail the workplace for practical purposes, with mentors to guide, monitor, coach and supervise the apprentices. Apprenticeship training without industry support will be a fruitless exercise and wasteful expenditure.

5.5 RECOMMENDATIONS

This research study would be incomplete without making pertinent recommendations to other stakeholders in the TVET colleges. These include the DHET, policymakers, college senior management team, lecturers, and apprentices. This section provided the recommendations in accordance with the main research aim and objectives of this study. The recommendations provided in this section arise from the literature review and the findings from the empirical investigation.

Recommendation 1: Motivating and supporting companies to assign qualified trainers or tutors

In order to ensure the quality of apprenticeship programmes, the research recommends that the DHET should establish quality frameworks defining minimum skills requirements for trainers/tutors and their cooperation with the apprentices and the TVET colleges. The trainer/tutor should be an experienced worker/employee with a specific number of years of previous work experience in the relevant trade. He or she should acquire and constantly update the necessary training-related competencies to oversee the practical training and acquisition of work experience of apprentices/trainees in the workplace.

Trainers/tutors are lifelong learners, so we should recognise their identity and work and support their lifelong learning. Renewal of certification may be considered as a way of

ensuring that trainers maintain and update their competencies. Supporting trainers/ tutors in companies should be a shared responsibility. DHET should ensure effective cooperation and coordination between government, sectoral organisations (trade unions, SETAs, chambers of business) and TVET colleges.

To address lack of monitoring of the apprentices at the workplace, the researcher suggests that the TVET colleges should have proper internal systems. Firstly, proper internal monitoring mechanisms should be established to ensure that proper orientation is done including company culture, and visiting learners at the institutions. Secondly, in the workplace, there should be a dedicated team comprising the relevant stakeholders to make sure that there is proper management of the training. This team should ensure that the logbooks are completed correctly and that the apprentice candidate is exposed to the right tasks which address overall competence in a trade. Before the college embarks on apprenticeship training the following should be in place: Firstly, the college should obtain a pre-approval consent letter from the would-be host employer indicating the number of supervisors who are artisans in the same institution an apprentice is registered for and the number of apprentices the company can host. Secondly, the relevant SETA should approve the workplace. Thirdly, the college should establish a workplace monitoring team that would monitor the workplace activities.

Recommendation 2: Supporting measures that make apprenticeship more attractive and accessible to the small, medium and micro-enterprises

In dealing with the challenge imposed by insufficient workplace training spaces, the DHET should support measures that make apprenticeships more attractive and accessible to the SMMEs.

Both the literature review and empirical research findings are in consensus that students that are placed at these SMMEs are afforded more opportunities than at big businesses. Having said that, not all companies might be ready to take apprentices. They might not have an adequate work environment or the internal organisational capacity that would allow the intake of novices to be trained and supervised (Molz,

2015:29). In the light of this notion, the following supportive measures may assist DHET to capacitate the SMMEs in hosting the apprentices in their workplaces:

Promoting a training culture among SMMEs: Compared to large companies, many SMMEs have a less advanced training culture and limited training budget. As an apprenticeship should be regarded as an investment, efforts may be needed to make SMMEs more aware of the benefits that offering apprenticeships can provide for SMMEs, such as providing them with skilled employees tailored for the company. Promoting a training culture can be done by launching campaigns or company visits targeting SMMEs combined with guidance and support highlighting the benefits and the returns on investment of offering apprenticeships. The TVET colleges may play a key role in helping SMMEs.

Promoting the benefits of apprenticeships to employers: Many companies, in particular SMMEs, are reluctant to take on apprentices because they are not convinced that there is a net benefit for them. In addition, employers may find the return on their investment uncertain because apprentices may want to move to another company after the training. Although apprenticeships can be a burden to employers that requires time, money and human resources, there are also benefits to employers of which the employers are unaware. Such benefits are: apprenticeships allow the business to secure a supply of people with the specific skills and qualities that the business requires and that may not be available on the external job market. Recruiting apprentices also enables employers to fill the skill gaps that exit within their current workforce as apprentices begin to learn sector-specific skills from day one. The apprenticeships can help secure a supply of skilled young recruits, especially important for the replacement of an aging workforce.

Recommendation 3: Striking the right balance between the company-specific skills needs of the employer and the general employability of the apprentice

The implementation of a good quality apprenticeship requires significant investments in financial, infrastructure and human resources, to mention a few. Understandably, most employers want to tailor the training to the specific skills needs of the company

to help offset these costs. However, focusing only on a single company's needs may be a very narrow approach since it is important that an apprentice also has the opportunity to develop general skills and competencies covering 'whole professions' and ensuring their general employability, also in view of future job opportunities. Hence, it is important to strike the right balance between the company specific skills needs of the employer and the general employability of the apprentice.

Recommendation 4: Provision of adequate resources

The literature review and the findings from the empirical evidence are in agreement that human and material resources in TVET colleges leave a lot to be desired. In view of this, the DHET as the custodian of the apprenticeship programme should provide adequate resources in the TVET colleges. More importantly, the DHET should consider recapitalising the TVET colleges with more funding allocated to apprenticeship training workshops and the replacement of the outdated equipment and machinery. In the same vein, managing the apprenticeship programme in TVET colleges needs sufficient funding. To minimise this problem, the researcher suggests that the college should establish an infrastructure committee as a sub-committee of the College Council in accordance with the FET Colleges Amendment Act. This committee would be answerable to the College Council and should include the manager responsible for the college infrastructure, and parents with knowledge of plumbing, painting, and electricity. The role of this committee would be to regularly inspect the physical facilities on the campuses and at the Central Office or Corporate Centre. The committee should report to the College Council regularly. The committee should also develop a policy regarding the use of physical facilities by both the learners and the lecturers. Most importantly, the existing physical environment should be maintained.

Recommendation 5: Introduction of workplace induction programme for the apprentices

The researcher recommends a workplace induction programme for the apprentices as this would help the apprentices to learn the ropes and make a smooth transition from off-the-job training to on-the-job training. It is not only valuable for employers in helping

the apprentices adapt to the workplace learning effectively but it is also a source of support. A good induction should aim at helping apprentices settle into the business and made them feel comfortable in their new workplace learning environment. Induction gives the apprentices opportunities to get to know their colleagues and to integrate effectively into the wider workplace culture, and provide reassurance about where they can go to for help if difficulties arise. Through induction apprentices understand their duties and have clearly explained to them the lines of authority and the roles of the supervisors and managers. In addition, induction provides practical guidance in areas such as working time, breaks, pay, working conditions, dress codes and health and safety.

Recommendation 6: Strengthen partnerships with TVET colleges, local stakeholders and industry

Establishing a partnership culture in TVET colleges is complex but imperative. These colleges are beset by institutional capacity constraints, role confusion, poor governance and administrative systems, inadequate funding, labour market information gaps and dependence on the state for virtually everything (HRDC, 2014: 35). The partnerships these colleges forged are short term contract opportunities - commonly referred to as ‘marriages of convenience’ - and are unsustainable. The Green Paper (DHET, 2012:50) advises that the “possibility of partnerships between public and private institutions should be explored within a clearly define regulatory framework that sets out the parameters for operation”. The public and private partnership should be a formal arrangement between the TVET college and the private sector. Through this arrangement the TVET works directly with the private sector to jointly pursue common goal. The researcher recommends that the DHET should strengthen TVET college partnerships with the private sector. Firstly, the college managers and other personnel who are involved in the implementation of public/private partnerships should be given sufficient training to enable them to have confidence and the capacity to cope with intricacies of the partnerships. The managers should be trained to a level where they would understand their counterparts in the private sector in order to effectively protect the interests of the TVET sector. In the light of this notion,

the DHET should upgrade the position of Business Development and Innovation in all the colleges to a Deputy Principal Innovation.

Secondly, The role of the government should be clearly articulated so that it should not be too involved in regulating partnerships as this will discourage partners from entering the relationship (German system). Thirdly, some companies may be too small or specialised to provide a full apprenticeship covering the whole curriculum. The TVET private partnership may assist by arranging an external training centre to alleviate such problems. Taking a leaf from the German apprenticeship system, the small companies should closely cooperate with the training counsellors at the chamber of industry and commerce, the Federal Employment Agency and other education providers' colleges to assist with the apprenticeship training. In addition, the college should assist the industry or company in obtaining SETA workplace approval and quality control procedures. The colleges should also assist to train unqualified workplace supervisors to become qualified workplace artisans.

Recommendation 7: Curriculum development should involve all stakeholders

Curriculum development for TVET colleges is a national imperative. The DHET is the custodian of the apprenticeship programme. This implies that the TVET colleges play a minimal role in changing it to meet the needs of the industry and even reduce the length of the training and the costs. Against this backdrop, the researcher recommends that change management strategies should be implemented to facilitate curriculum change. In revising the apprenticeship programme curriculum, there is a need to ensure collaboration between high schools and TVET colleges such that the curriculum offered at the high schools complements the TVET college curriculum. Moreover, the apprenticeship curriculum should also be revised jointly with industry, government representatives, educational experts, industry associations, representatives of employers, and trade unions.

The provision to engage the stakeholders above would minimise the tensions that often manifest themselves between a government that might prefer academic subjects in the curricula and the knowledge and technical foundations that industry wants to see reflected in the curricula. By aligning the apprenticeship programme curriculum to the

needs of the industry, the government would address the disjuncture between what the colleges offered and what is needed in the job market.

The findings from the empirical investigation suggest that there should be a standardised apprenticeship training guide for all the SETAs, TVET colleges and other stakeholders providing the apprenticeship programme. All the relevant stakeholders involved in apprenticeship training, including the lecturers teaching apprenticeships, should be consulted for inputs. The training guide should be reviewed every three years taking into consideration the advances in technology.

The curriculum currently compromises the quality of the apprenticeship training and it should be replaced with a unit standards-based curriculum. The colleges should involve industry in developing a responsive curriculum that would address the needs of the labour market.

In addressing the authoritarian and bureaucratic approach between the DHET and the colleges with their over-centralised campus activities, the researcher suggests collaborative and participatory leadership as a strategy that could promote collegiality because it attempts to balance top-down and bottom-up approaches. The researcher further suggests the implementation of a communication model that comprises of a variety of communication methods. Such a model would be a crucial change management strategy to improve the efficiency of communication between the DHET and TVET colleges as well as between the colleges and the multi-campuses (Terblanche, 2017:211).

Pertaining to the alienation of lecturers in curriculum change, the researcher suggests workshops on curriculum change. Lecturers require knowledge, new abilities, sufficient time and appropriate technical support to deal with curriculum change in a smooth and seamless way. Therefore the workshops in curriculum change should create a platform for critical response and inputs on the curriculum from the lecturers, not just workshops where the lecturers are informed about the new curriculum, documents and material, so that they understand and accept the innovation (Kanyane, 2016:112). Among other things, curriculum change should reflect the following attributes:

The employers should lead curriculum development as they know what is needed in a particular trade, from content to recruitment, assessment and qualification. However, caution should be taken that short term benefits do not outweigh educational goals. The TVET college staff should also be included in reviewing and redesigning curricula as they have a wealth of experience and knowledge.

Curriculum leadership should have crucial competencies such the knowledge of the TVET sector, strong leadership with industry knowledge and experienced networking skills, innovation, creativity, subject expertise and the will to change in order to manage curriculum change. It should be responsive to the needs of the industry, which would lead to the apprentices being productive, employable or self-employed.

In addition, curriculum should strive to improve articulation between the school curriculum, college programmes and the tertiary qualifications, in particular, at universities. This process should be accelerated through stakeholder engagement and dialogue in the review of curriculum (German system).

Furthermore, curriculum should allow flexibility regarding the duration of the apprenticeship training. This flexibility may help because some occupations demand substantial theoretical and practical training. This would ensure that apprentices reach their training objectives and the costs and benefits of the training to employers will be in balance.

Recommendation 8: The DHET should conduct change management workshops

The literature revealed that the TVET colleges have been exposed to various forms of change over the past 23 years. These changes have involved the introduction of new programmes, plans to phase out others, recapitalisation of infrastructure, new forms of governance, shifts in line function accountability of colleges and shifts in staff employment regimes. These multiple waves of change have had an impact on the colleges by imposing tremendous pressure on the stakeholders to deliver on their mandates.

The researcher suggests that change management should be introduced to enable the SETAs, QCTO, NAMB INDLELA, and the verifiers to cope with it. The DHET should

introduce a stakeholder strategy – how to identify and engage stakeholders through the full lifecycle of change. The researcher also believes that there is a dire need for stakeholders' change management workshops. These workshops may help, among other things, to strengthen SETAs, TVET colleges and employers' linkages; improve and streamline college leadership which is currently wide and complex; assist the stakeholders to fully implement some policies which were not fully implemented; and upskill staff in curriculum development.

The researcher suggests change management workshops and partnerships with international and local stakeholders like industry and universities to keep abreast with technological and industrial changes. Furthermore, the college management team under the leadership of the principal should adopt a participatory management strategy and establish consultative forums among his or her team. This strategy would instil a sense of ownership, empowerment and team work among his or her colleagues.

Recommendation 9: The TVET Colleges should develop apprenticeship recruitment and selection criteria

The empirical investigation revealed that the recruitment and selection of the learners posed a severe challenge in managing the apprenticeship programme. For instance, most of the learners recruited into the apprenticeship programme do not cope with the apprenticeship training. In order to address the challenge of poor quality of recruited and selected learners, this study recommends that the TVET colleges should follow criteria provided below as a guideline for recruitment and selection of the learners:

The minimum entry requirements for apprenticeship training in public TVET colleges is N2 or N3 or technical trade theory programmes quality assured by a SETA deemed to be equivalent to NQF level 3 or a relevant engineering NC (V) certificate with seven subjects at NQF level 3 or Technical Grade 11 in Mathematics, Physical Science, fundamentals and related trade theory subjects or relevant knowledge directly related to the trade theory subjects (N6 certificate or National Technical Diploma);

The psychometric test uncovers essential information which was not available during the interview. The information obtained from the psychometric test would be used to

complement the information obtained from the interview and may assist to screen potential learners for the apprenticeship training.

The colour blindness test for the electricians is imperative. All the learners who wish to be admitted for electrical apprenticeship must be tested for colour blindness. It is a requirement of law. This is done for safety reasons and to avoid costly errors. The results of the colour blindness test would indicate whether the learner could be admitted for the electrical apprenticeship training or not.

These guidelines may assist the TVET colleges recruit, select and admit potential learners who are more likely to cope with the apprenticeship training. This recommendation may help to improve retention of learners in the training, learner achievement and certification rates.

Recommendation 10: Professional development of lecturers and trainers

The professional development of TVET college lecturers has a history of neglect which resulted in the sector employing newly qualified artisans and technicians from industries and turning them into lecturers with neither professional pedagogic training nor technical practical experience (Matea, 2013:11). The Green Paper indicates that the TVET college lecturers are either underqualified or unqualified. This challenge needs to be prioritised and attended to. Empowerment of staff includes lecturer improvement which expands the individual lecturer and enhances his or her talents. Development improves lecturers' mastery of the programme and their knowledge in educating and aiding learning. Every individual at each level in their lifestyle ought to have lifelong learning opportunities to acquire the knowledge and abilities to satisfy their goals and to continue to their success (Chetram, 2017:6). The researcher also appeals to the DHET to prioritise the lecturers' continuing professional development with emphasis on lecturers' industry exposure or Work Integrated Learning (WIL). This would assist the lecturers to keep abreast of advanced technologies used in the industry.

The researcher aligns himself with the views of the participants that one of the strategies to enhance the quality of managing the apprenticeship programme in TVET colleges in South Africa is to embark on empowerment of staff. This programme, if

seriously considered, would, for instance, benefit two cohorts of lecturers. Firstly, it would address the needs of lecturers who have the industry and workshop practical experience but without classroom teaching strategies; and, secondly, the lecturers who have theoretical knowledge and classroom strategies but lack practical experience for workshops should be retrained. In addressing this challenge, the colleges and the industries should collaborate and jointly train the lecturers.

The guidelines below are consistent with the objective of this study: To develop guidelines that may be used to enhance the effective management of the apprenticeship programme in TVET colleges in South Africa. The guidelines are adapted from Modern Apprenticeships of the University of Edinburg as an international benchmark and have been modified to be used by the relevant stakeholders in South Africa

GUIDELINES IN MANAGING THE APPRENTICESHIP PROGRAMME IN TVET COLLEGES IN SOUTH AFRICA

1. Scope and purpose

These guidelines provide the TVET colleges with a wide framework for institutional training, workplace based learning, recruitment and developing the apprentices. The guidelines ensure that the legal requirements and obligations regarding the institutional training and workplace learning of apprentices are met. They track the continuum of activities and responsibilities required to improve and enhance the management of the apprenticeship programme in selected Technical and Vocational Education and Training colleges in South Africa. The guidelines also place the management of the apprenticeship programme at the core of apprenticeship training, supported strongly by resources and availability of workplace-based learning to ensure that core deliverables for quality training and learning are firmly in place for the apprentices.

An important point of note is that the scope of these guidelines provides regulations, obligations, and principles with specific reference to the apprenticeship programme in public TVET colleges in South Africa. Other methods of training the apprentices such as indentured (contracted) apprenticeships are beyond the scope of these guidelines

2. The objective of the guidelines

2.1 The objective of the guidelines is to enhance the effective management of the apprenticeship programme in TVET colleges in South Africa.

3. Definitions of concepts

For the purpose of the guidelines, it is imperative to first define the concepts related to these guidelines within the context of this study.

Apprenticeship: A form of initial vocational education and training that combines theoretical/practical training/simulation with workplace-based learning, and upon successful completion leads to a nationally recognised TVET college qualification.

Apprenticeship programme: Nationally recognised programme which combines institutional and workplace-based learning, leading to the apprentice gaining an industry experience that leads to a trade test and full qualification on the National Qualification Framework (NQF).

Workplace-based learning programme agreement: This is a legally required written agreement between the employer, learner and the training provider that contains the terms and conditions of the employer, apprentice, and the training provider. It also includes a statement of the skill, trade or occupation for which the apprentice is being trained.

Workplace-based learning programme: Means an intervention as contemplated in an occupational qualification in which a person internalises knowledge and skill competencies, and gains insight through exposure to work by achieving specific outcomes to enhance employability.

Learning programme: It is the process through which the learner achieves the standards or qualification or part qualification which includes a structured work experience. This has been expanded upon to include apprenticeships, learnerships, candidacy, internships for a diploma, student internship category A or B, student internship category B or C, student internship and graduate internship in terms of the Learning Programme.

Training agreement: This is a service level agreement entered into between two or more parties to agree on the service level required in performing their roles and responsibilities.

Training provider: It is a recognised provider accredited by the relevant Quality Council for the relevant curriculum components associated with the learning programme. The training provider should also be responsible for organising, managing and delivering the training.

4. Legislative framework

4.1 In the context of these guidelines the apprentices sign training contracts for the duration of the training which ranges from 12 months to 36 months depending on the specific qualification. The apprentices will also receive a monthly stipend determined by the fund. There are three main stages in the process of recruiting apprentices:

Adapted from: Modern apprenticeships: The University of Edinburgh (2015).

Detailed guidelines for each stage are provided in the next section.

Stage 1: Selecting the framework

The first stage in the appointment of the apprentice is to identify a relevant and suitable framework. In the context of this guideline 'framework' refers to the trade the apprentice will be involved in, and a set of required outcomes and content to be

achieved. There are 125 trades in the National list of Artisan Trades dated 1 July 2012 published by the DHET, and also the RSA Government Gazette Volume 568 dated 31/08/2012, No 35625. Such trades include: 641201 Bricklayer, 652302 Fitter and turner, 65 1302 Boiler maker, 641502 Carpenter.

Stage 2: Selecting the training provider

Once a suitable framework has been identified, the next stage is to select a training provider. The criteria for selecting the training provider include accreditation, quality assurance by external bodies, training delivery methods, infrastructure, and previous experience.

Stage 3: Recruitment and selection of apprentices

In this stage the apprentices should be recruited through a full recruitment process that is advertising, shortlisting, interviewing, and appointment of the potential apprentices. When recruiting the apprentices, the training providers are not looking for the finished product but for apprentices for whom the interview will be the first of their professional life. They may have difficulty demonstrating their skills during the interview because of lack of experience.

3.1 Planning and preparation

When planning the recruitment and selection process it is important to establish timescales for the different stages of the recruitment process. It is also important to schedule shortlisting panel meetings and interviews in advance of advertising to ensure availability of the interviewers and interviewees.

3.2 Drafting adverts and further particulars documents

The training provider should produce an advert. The wording of the advert should be concise and give the candidates a good understanding of their role. The purpose of the advert is to attract an appropriate range of candidates. The required supporting documents are:

. Certified copy of South African Identity document

. Certified copy of highest qualification

. If the learner has a disability, a letter verifying the learner's disability in terms of the employment Equity Act (No 55 of 1998),

. Proof of residence

. Last college attended and

. Support group

3.3 Advertising

The training provider should advertise all vacancies externally. It may be advisable to advertise in more than one media to ensure that the college reaches all the appropriate candidates and in particular to encourage applications from a diverse range of social and ethnic backgrounds. The aim of advertising the vacancies is to attract high caliber individuals using a fair and non-discriminatory process, so that high potential individuals are appointed and developed.

3.4 Shortlisting and interviewing

In order to arrive at a fair and transparent applicant shortlist, all candidates should be properly informed of the selection process and practice surrounding shortlisting. It is essential that there is a structure to the process that flows smoothly from start to finish. Interviewers must do their own preparation beforehand by carefully studying the information available to them, e.g. the application forms of shortlisted candidates and further particulars.

The shortlisted candidates should be invited to attend a technical aptitude test administered by an accredited provider. The successful candidates should be invited for a screening interview and also attend a second interview by the employer for final selection. In selecting the candidates the employer should ensure equity in the workplace.

3.5 Pre-checks and appointment

All appointments should be made following a fair and transparent process. When appointing the apprentice the following documents are essential:

. Workplace-based learning programme agreement

. Workplace-based learning programme.

. Learning programme

. Training agreement

3.6 Induction

3.6.1 A well planned effective and relevant induction programme is vital in this stage. The managers should bear in mind that apprentices are often less experienced workers or college leavers who, in addition to the normal stress associated with beginning a new training, are also learning what it means to be part of a working environment. Therefore, it is particularly important to provide the appropriate induction and support in the initial weeks. The following may be included in the induction programme:

3.6.1.1 College and employer policies and procedures

3.6.1.2 Occupational health and safety, and risk management

3.6.1.3 Basic conditions of employment and grievance procedure

3.6.1.4 Legal requirements and obligations of all parties.

3.6.2 Providing a well thought through induction is not only valuable for training providers and employers in helping the apprentices to adapt to training and workplace environment but is a source of support that is generally appreciated by the apprentice themselves. A good induction programme should aim to:

3.6.2.1 Provide practical guidance in areas such as working time, breaks, payments, working conditions, dress code and health and safety.

3.6.2.2 Help the apprentice understand their duties and clearly explain the line of authority.

3.6.2.3 Assist the apprentice settle in the training institution and workplace, and make them feel comfortable in their new surroundings.

3.6.2.4 Give the apprentice opportunities to get to know their colleagues and to integrate effectively into the wider training institution and workplace culture.

3.6.2.5 Provide reassurance about where the apprentice can go to for help if difficulties arise.

4. THE RIGHTS AND DUTIES OF THE EMPLOYER

4.1 Right of the employer

The employer has the right to require the learner to:

. Perform duties in terms of the agreement; and

. Comply with the rules and regulations concerning the employer's workplace policies.

4.1.1 Duties of the employer

The employer must:

. Comply with all the duties in terms of the Skills Development Act (No 97 of 1998) as amended and applicable legislation including:

. Basic Conditions of Employment Act (No 75 of 1997)

. Labour Relations Act (No 66 of 1998)

. Employment Equity Act (No 55 of 1998)

. Occupational Health and Safety Act (No 58 of 1993) or Mine Health and Safety Act (No 27 of 1996)

. Compensation for Occupational Injuries and Diseases Act (No 130 of 1993)

. Unemployment Insurance Act (No 30 of 1996).

The apprentices are at the workplace because they have made an active choice to learn on the job and a commitment to a specific career, so it is imperative that the employer build on this commitment and give them the appropriate levels of responsibility but also the support they will need to succeed. The employer thus:

.Gives a clear outline of expectations and provides a safe supportive environment to learn and develop.

.Encourages the apprentices from the beginning to own and drives their programme targets and also seeks regular feedback from self-assessing their performance.

The line manager determines the success of an apprentice entering the workplace. As such, winning the support of the apprentice and ensuring that they feel comfortable with their new responsibility is an important step. However, the employer can facilitate this by upskilling and developing line managers so that they can coach their apprentices and act as a role model. The role of the line managers are, among others:

. Communicate, review progress and meet regularly with the apprentice

. Provide feedback, praise and recognition

. Take an interest in the individual

. Be available to talk if the apprentice has a question or a problem

. Be approachable and understanding.

. Have an apprenticeship agreement in place with their apprentice for the duration of the workplace learning

. Keep a commitment statement signed by the apprentice, their provider and the provider

. If an apprentice has a specific learning disability, this should be factored into the programme and additional support provided.

. Put a workplace learning mentor in place to further enhance the experience, addling and creating a proactive environment that builds on the apprentice's eagerness, motivation and commitment.

.The workplace mentor should be a qualified and experienced artisan in the same trade for which the apprentice is registered.

. Introduce a 'buddy' system. This can be an experienced worker nominated to assist the new recruit in all the day-to-day questions that may arise. Buddies provide another layer of informal support, which can also be helpful in preventing new apprentices from feeling isolated.

4.2 RIGHTS AND DUTIES OF THE TRAINING PROVIDER

4.2.1 Right of the training provider

. The training provider has the right to access the learner's portfolio of evidence and workplace related assessment.

4.2.1.1 Duties of the training provider

The training provider must:

. Provide the structured learning specified in the apprenticeship

. Provide the learner support as required by the apprenticeship

. Record, monitor and retain details of the education and training provided to the learner in terms of the apprenticeship and periodically discuss progress with the learner and the employer

. Conduct off-the-job assessment for the structured learning component specified in the apprenticeship or cause it to be conducted

. Ensure that the assessment against the outcomes of the qualification associated with the apprenticeship is conducted at the end of the apprenticeship; and

. Issue a written statement of results in respect of the learner's final assessment for the qualification associated with the apprenticeship within 21 working days of the assessment, to the learner, SETA and the ETQA accredited for the qualification

4.3 THE RIGHTS AND DUTIES OF THE LEARNER (APPRENTICE)

4.3.1 Rights of the learner

. Have access to the required resource for the achievement of the specified outcomes for the structured learning component as well as the specified practical workplace experience activities of the apprenticeship

. Be assessed and have access to the assessment results for the structured learning component as well as the specified practical workplace experience activities of the apprenticeship

. Raise grievances in writing with the SETA of ETQA accredited for the qualification associated with the apprenticeship concerning any shortcomings in the quality of the education and training.

4.3.1.1 Duties of the learner

. Apprentices should attend all theoretical learning sessions and practical learning activities with the training provider.

. Complete logbook and make sure that it is signed off by the mentor and/or line manager.

. Comply with the employer's workplace policies and procedures

. Carry out all occupationally related work for the employer required for the practical workplace experience activities specified in the apprenticeship.

Complete projects and participate in any assessment activities that are required for the final assessment at the end of the apprenticeship.

5. Monitoring and evaluating progress

Once the recruitment and selection process is completed and the training has started, monitoring and evaluation also commence. The college project steering committee should be established to guide the overall management of the apprenticeship programme. The college project steering committee should ensure the availability of the entire requisite resources to deliver all aspects of the training stipulated by the curriculum and the qualification, and extensive engagement with other stakeholders regarding the responsiveness of the curriculum to the labour market. The project steering committee should consist of the following stakeholders:

2x Training provider representatives

2x Employer representatives

2x Apprentices' representatives

2x Funder representatives

2x SETA representatives

6. EXIT STRATEGY AND SUPPORT FOR APPRENTICES

6.1 Continuous learning and development

Once the apprentices have completed training, learning does not stop. The college should have a personal development plan for the apprentices who have just completed the training. Learning can take place in formal settings, by attending organised training events or workshops, or studying for formal qualifications. Learning can also be informal such as coaching others, and relieving lecturers when they are on leave.

6.1.1 Entrepreneurship

The college with collaboration with other stakeholders should assist the apprentices that have just completed to earn sustainable livelihoods through self-employment or establishing a company or cooperative.

6.1.2 Public/private partnerships

Effective management of the apprenticeship programme requires public/private partnerships (PPPs). The PPPs should not be gentlemen's agreements but rather an agreement in the form of a contract that spells out the obligations of each partner. The contract should define the nature of the partnership and the commitment of each stakeholder. The purpose of signing a PPP is to enhance the effective management of the apprenticeship programme in TVET colleges.

The TVET colleges should partner with various mining houses, agricultural houses, chambers of commerce, SETAs, municipalities, steel and engineering industries and the Federation of South Africa (Seifsa) which is a bargaining council for employers. Not only is this partnership a business transaction but it should also be seen as a way for colleges to ensure that the training of the apprentices is of a high standard. On the other hand, the employers should see the partnership as a way of developing the critical skills needed in South Africa and to ensure the successful management of the apprenticeship programme.

5.6 LIMITATIONS OF THE STUDY

The researcher identified the following as some of the possible limitations that pertain to this study:

The study used a qualitative case study design in investigating the management of the apprenticeship programme in selected TVET colleges in South Africa. This study was restricted to three TVET colleges, which were purposively sampled, namely, Vuselela, Umfolozi and Majuba. The findings of this study could have been different if the study was extended to other TVET colleges. More views and rich information on the

management of the apprenticeship programme might have been collected. Nevertheless, the findings of this study cannot be generalised because the study focused on the in-depth understanding of the dynamics of a particular case. However, the results of this study may relate to other similar situations and can assist others to learn something about the management of the apprenticeship programme in TVET colleges in South Africa.

Using the purposive sampling techniques, the college management team, programme managers, campus or project managers and college lecturers were selected for the unstructured interview schedule from Vuselela, Umfolozi and Majuba TVET colleges. These groups of participants were chosen because they are all directly or indirectly involved in managing the apprenticeship programme. Therefore, the use of purposive sampling was a limitation on its own. It is possible that a different conclusion might have been reached if simple random sampling had been used.

Non-availability of some of the initially proposed participants for interview purposes was also a limitation. Despite prior arrangements, some participants were still not available because of commitments like attending conferences and busy work schedules. However, the researcher secured interviews with their counterparts. The unavailability of these initially earmarked participants made it difficult for the researcher to obtain rich information to answer the research question. In this study, purposive sampling was employed. Johnson and Christensen (2012:231) explain purposive sampling as a non-random sampling technique in which the researcher solicits persons with specific characteristics to participate in a research study. The rationale for using purposive sampling was to locate information-rich informants, specific experience or cases that can be used to meet the purpose of the research study (Englander, 2012:19). The researcher considered purposive sampling to be appropriate for this study because he was not interested in making empirical generalisations of the findings but rather wished to select information-rich participants who were assumed knowledgeable, and could provide ‘thick descriptions’ of the management of the apprenticeship programme in selected TVET colleges in South Africa. Marshall (1996, as cited in Letseka, 2012:96) contends that “some informants are richer than others and that these people are likely to provide insight and understanding”. Most

importantly, the purposive sampling was used to answer the research question: how do different stakeholders discharge their role of managing the apprenticeship programme in selected TVET colleges in South Africa?

According to McMillan and Schumacher (2010:140), a very important consideration in conducting and evaluating research is the size of the sample or the number of participants. Qualitative samples can range from 1 to 40 or more. Fraenkel, Wallen and Hyun (2012:103) state that, in qualitative studies, the number of participants in a sample is usually somewhere between 1 and 20. In view of these notions, the researcher believes that the sample size of 30 participants in this study was adequate, the reason being that the aim of this study was not to generalise the findings of this study to a large population. .

The use of purposive sampling enabled the researcher to explore, analyse and describe the perspectives and views of the principals, deputy principals: academic service, programme managers campus managers or project managers, and the apprenticeship lecturers thoroughly in their respective colleges. As a result, an in-depth insight into the role of the stakeholders and the challenges that hindered the management of the apprenticeship programme was gained. In addition, some omissions may be present in this study and it does not necessarily mean that they are insignificant, but they were not thought of at that time. Despite the limitations indicated above, the value of this study should not be underestimated

5.7 AREAS FOR FURTHER RESEARCH

During the course of this study, the following areas for further research emerged. The researcher recommends the following as possible areas for further study:

It is recommended that this study be explored in other TVET colleges to deepen insights regarding the management of apprenticeship. The researcher suggests a quantitative study that would cover a larger focus area and make provision for generalisation**.**

The current study has indicated that the apprenticeship programme and other college programmes are funded differently. It is recommended that further investigation be

carried out on funding norms. The findings of such research may provide valuable information on the costs of apprenticeship training and how funding may be leveraged to improve the management of the apprenticeship.

The study recommends that an investigation be conducted to determine the supervision of the apprentices in the workplace. This recommendation would determine the quality of the training the apprentices received at the workplace. The information received from this study would provide significant information that may assist to improve the management of the apprenticeship programme.

This study focused on the views of the TVET college principals, deputy principals: academic service, campus or project managers, programme managers and the lecturers. It is therefore recommended that further research be done on the views of other stakeholders such as the SETAs, employers, apprentices, and the parents. Such a study would gather more data on the management of the apprenticeship programme.

5.8 CONCLUSION

This final chapter has presented a critical summary of the study in terms of the management of the apprenticeship programme. It provides a summary of the four chapters. This chapter also highlighted some critical conclusions emanating from the study. In addition, the chapter highlighted some critical limitations, and made recommendations regarding areas for further study, which the researcher experienced during the investigation. The recommendations presented in this study may assist in enhancing the management of the apprenticeship programme.

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APPENDIX A: ETHICAL CLEARANCE CERTIFICATE

COLLEGE OF EDUCATION
2015 -10- 22
Office of the Executive Dean

UNISA university of south africa

COLLEGE OF EDUCATION RESEARCH ETHICS REVIEW COMMITTEE

14 October 2015

Ref # **2015/10/14/55382290/20/MC**
Student#: Mr IB Shole
Student Number #: 55382290

Dear Mr Shole

Decision: Ethics Approval

Researcher:
Mr IB Shole
Tel: +2718 406 7800
Email: shole@vuselelacollege.co.za

Supervisor:
Prof. P Mafora
Registrar: Academic, Enrolments and Administration
Tel: +2712 429 2270
Email: pmafora@unisa.ac.za

Proposal: Managing the apprenticeship programme in technical and vocational education and training colleges in South Africa

Qualification: D Ed in Educational Leadership and Management

Thank you for the application for research ethics clearance by the College of Education Research Ethics Review Committee for the above mentioned research. Final approval is granted for the duration of the research.

The application was reviewed in compliance with the Unisa Policy on Research Ethics by the College of Education Research Ethics Review Committee on 14 October 2015.
The proposed research may now commence with the proviso that:

1) *The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*
2) *Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the College of Education Ethics Review Committee. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.*

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa

3) *The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.*

Note:

The reference number **2015/10/14/55382290/20/MC** *should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants, as well as with the College of Education RERC.*

Kind regards,

Dr M Claassens
CHAIRPERSON: CEDU RERC
mcdtc@netactive.co.za

Prof VI McKay
ACTING EXECUTIVE DEAN

APPENDIX B: LETTER REQUESTING PERMISSION TO CONDUCT RESEARCH

IBB Shole (Mr)

60 Boshoff Street

La Hoff

Klerksdorp

2570

20 September 2015

The Director-General

Department of Higher Education and Training

123 Francis Baard Street

Pretoria

0001

Sir

REQUEST FOR PERMISSION TO CONDUCT RESEARCH: STUDENT NUMBER 55382290: PERSAL No. 90300823.

I am registered Doctor of Education student at the University of South Africa specialising in Educational Management. I hereby request permission to conduct my research in TVET colleges in North West and KwaZulu- Natal provinces. My research topic is: *Managing the apprenticeship programme in Technical and Vocational Education and Training Colleges in South Africa.* The study seeks to make contributions that may improve the management of the apprenticeship programme in TVET Sector.

I will ensure strict confidentiality and anonymity of all participants at all levels of this research study. For more information regarding the study, kindly contact my supervisor. His contacts are:

Professor P Mafora

University of South Africa

Registrar: Academic, Enrolments and Administration

Tel: 012 429 2270

Email: pmafora@unisa.ac.za

Your assistance in this regard will be appreciated

Yours faithfully

Bogart Shole

APPENDIX C: APPROVAL LETTER FROM DHET

higher education
& training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

Private Bag X174, PRETORIA, 0001, 123 Francis Baard Street, PRETORIA, 0002, South Africa
Tel: (012) 312 5911, Fax: (012) 321 6770
Private Bag X9192, CAPE TOWN, 8000, 103 Plein Street, CAPE TOWN, 8001, South Africa
Tel: (021) 469 5175, Fax: (021) 461 4761

Enquiries: Renay Pillay ***Email: Pillay.r@dhet.gov.za*** ***Telephone: 012 312 6191***

Mr Isaac Bogart Shole
PO Box 14168
Flamwoodwalk
POTCHEFSTROOM
2535

By e-mail: Shole@vuselelacollege.co.za

Dear Mr Shole

REQUEST TO UNDERTAKE RESEARCH IN THREE TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING COLLEGES – VUSELELA, MAJUBA AND UMFOLOZI: MANAGING THE APPRENTICESHIP PROGRAMME IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING COLLEGES IN SOUTH AFRICA

I acknowledge receipt of your request for permission to conduct research in three (3) Technical and Vocational Education and Training (TVET) Colleges – Vuselela TVET College, Majuba TVET College and Umfolozi TVET College on the topic "Managing the apprenticeship programme in Technical and Vocational Education and Training Colleges of South Africa".

Your request has been evaluated by the Department of Higher Education and Training (DHET) and it is my pleasure to inform you that your request for permission to undertake the above research has been granted. You are advised to obtain further permission from the Principals of Vuselela, Majuba and Umfolozi TVET Colleges before commencing any research activities.

Higher Education and Training • Hoër Onderwys en Opleiding • Imfundvo Lephakeme Nekuceceshwa • Ifundo Ephakamisako Nebandulo

You are also requested to attach the following documents to correspondence addressed to the Principals of Vuselela, Majuba and Umfolozi TVET Colleges:

a) copy of this letter from the DHET;
b) copy of the "Ethical Clearance Certificate" issued by UNISA; and
c) copy of the "completed application form to undertake research in public colleges".

The topic of your research is of great interest to the Department. It will therefore be appreciated if you could share the findings of your research with the Department upon completion of your research.

I wish you all of the best in your research study.

Yours sincerely

F.Y.Patel

pp **Mr GF Qonde**
Director-General

Date: 11/12/2015

APPENDIX D: LETTER TO TVET COLLEGE PRINCIPALS

60 Boshoff Street
La Hoff
Klerksdorp
2570
12 January 2016
shole@vuselelacollege.co.za
018 406 7800

The Principals
Vuselela TVET College
Majuba TVET College
Umfolozi TVET College

Dear Sir/ Madam

REQUEST FOR PERMISSION TO CONDUCT RESEARCH: STUDENT NUMBER 55382290: PERSAL No. 90300823

I am registered Doctor of Education student at the University of South Africa specialising in Educational Leadership and Management. I hereby request permission to conduct my research in the TVET Colleges in North West and KwaZulu- Natal provinces. My topic is *managing the apprenticeship programme in Technical and Vocational Education and Training Colleges in South Africa.* The study seeks to make contributions that can improve the management of the apprenticeship programme in the TVET Sector.

I will ensure strict confidentiality and anonymity of all participants at all levels of this research study.

For more information regarding the study, kindly contact my supervisor. His contacts details are:

Professor P Mafora
University of South Africa

Registrar: Academic, Enrolments and Administration
Tel : 012 429 2270
Email : pmafora@unisa.ac.za

Please receive the following attached documents:

- Ethical clearance certificate issued by UNISA
- Letter from the DHET
- Completed application form to undertake research in public colleges

Your continuous support will be appreciated

Yours faithfully

Bogart Shole (Mr)

……..

APPENDIX E: INFORMED CONSENT FORM

TITLE OF THE RESEARCH: Managing the apprenticeship programme in Technical and Vocational Education and Training Colleges of South Africa.

PURPOSE OF THE STUDY: This study seeks to make contributions that can improve the management of the apprenticeship programme in Technical and Vocational Education and Training Colleges.

UNIVERSITY: UNISA

SUPERVISOR: Professor P Mafora

DATE: 20 September 2015

RESEARCHER'S CONTACT DETAILS:

IBB Shole

Tel : 018 406 7800

Fax : 018 406 7810

Mobile: 082 569 8572

Email: shole@vuselelacollege.co.za

I have read the information presented in the information letter about the study. I have the opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and add any additional details I wanted. I am aware that I have the option of allowing my interview to be audio recorded to ensure an accurate recording of my responses. I am also aware that excerpts from the interview may be included in publications to come from this research, with the understanding that the quotations will be anonymous. I was informed that I may withdraw my consent at any time without penalty by advising the researcher. With full knowledge of foregoing, I agree, of my own free will, to participate in the study.

Participant's Name (Please print)……

Participant's Signature ……..

Researcher's Name……

Researcher's Signature……

APPENDIX F: FOCUS GROUP INTERVIEW CONFIDENTIALITY AGREEMENT

TITLE OF THE RESEARCH: Managing the apprenticeship programme in Technical and Vocational Education and Training Colleges of South Africa.

PURPOSE OF THE STUDY: This study seeks to make contributions that can improve the management of the apprenticeship programme in Technical and Vocational Education and Training Colleges.

UNIVERSITY: UNISA

SUPERVISOR: Professor P Mafora

RESEARCHER'S CONTACT DETAILS:

DATE: 20 September 2015

IBB Shole

Tel : 018 406 7800

Fax : 018 406 7810

Mobile: 082 569 8572

Email: shole@vuselelacollege.co.za

I ……. grant consent that the information I share during the focus group interviews may be used by the researcher, Bogart Shole, for research purposes. I am aware that the focus group interview will be digitally recorded and grant consent for these recordings, provided that my privacy will be protected. I undertake not to divulge any information that is shared in the focus group interviews to any person outside the group to maintain confidentiality.

Participant's Name (Please print)…….

Participant's Signature……..

Researcher's Name……

Researcher's Signature…….

APPENDIX G: INTERVIEW GUIDE

PRINCIPALS, DEPUTY PRINCIPAL ACADEMIC, PROGRAMME MANAGERS AND CAMPUS/ PROJECT MANAGERS

- I would like to take this opportunity to thank you for taking this time to meet with me today.
- My name is Isaac Bogart Bassie Shole and I would like to talk to you about your experience in managing the apprenticeship programme in TVET colleges in South Africa.
- The interview will take between thirty to sixty minutes, and I will be recording the interview sessions because I do not want to miss any of your comments.
- I will also be taking some notes during the session, but I cannot write fast enough to get it all down. Because we will be on tape, please speak up so that I do not miss your comments.
- All responses will be kept confidential. This means that any information I include in my thesis will not identify you as the participant.
- Are there any questions regarding what I have explained?
- In the absence of no questions, let's go through the informed consent form.
- Questions will follow as per interviews questions schedule.
- Is there anything more you would like to ask or add?
- Closure.

APPENDIX H: INTERVIEW QUESTIONS

1. Can you please share your views on what you perceive as the role of external and internal stakeholders in managing the apprenticeship programme in Technical and Vocational Education and Training colleges in South Africa?

2. What challenges, if any, do you think external and internal stakeholders experience in managing the apprenticeship programme in TVET colleges in South Africa?

3. In your view which innovative strategies are being used or can be employed to address these challenges effectively?

4. What in your opinion should be done to enhance the quality of managing the apprenticeship programme in TVET colleges in South Africa?

It was an informative experience interviewing you. Thank you for your time and your invaluable contributions.

APPENDIX I: EDITING AND PROOFREADING CERTIFICATE

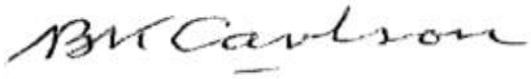
8 Nahoon Valley Place
Nahoon Valley
East London
5241
2 March 2020

TO WHOM IT MAY CONCERN

I hereby confirm that I have proofread and edited the following thesis using the Windows 'Tracking' system to reflect my comments and suggested corrections for the student to action to produce a clean copy for examination purposes:

Managing the apprenticeship programme in selected technical and vocational education training colleges in South Africa by ISAAC BOGART BASSIE SHOLE, a thesis submitted in accordance with the requirements for the degree of DOCTOR OF EDUCATION in EDUCATION MANAGEMENT at the UNIVERSITY OF SOUTH AFRICA.

In addition to the suggested changes I have made, the thesis contains some language and formatting issues that the student is still required to address to bring the thesis up to standard for examination purposes. As editor, however, I will not see nor verify the final copy of the thesis that is submitted for examination.



Brian Carlson (B.A., M.Ed.)

Professional Editor

Email: bcarlson521@gmail.com

Cell: 0834596647

Disclaimer: Although I have made comments and suggested corrections, the responsibility for the quality of the final document lies with the **student** in the first instance and not with myself as the editor.