Lecturers' experiences of the implementation of the National Certificate (Vocational) in Technical Vocational Education and Training Colleges in South Africa

By

MOTSWALLE CHRISTINA KANYANE

Submitted in accordance with the requirements for

the degree of

MASTER OF EDUCATION

in the subject

COMPARATIVE EDUCATION

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: PROF. E.M. LEMMER

January 2016

DECLARATION

I declare that **Lecturers' experiences of the implementation of the National Certificate (Vocational) in Technical Vocational Education and Training Colleges in South Africa** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

M.C. Kanyane

2016-02-08
Date

ACKNOWLEDGEMENTS

I would like to pronounce my heartfelt thanks, firstly, to my heavenly Father, Ebenezer, who carried me through my studies; and secondly, my thanks goes to the following persons, for their invaluable contribution to this work -

- my supervisor, Prof. Eleanor M. Lemmer. You were with me from the start to the end, nudging me on when I was being overwhelmed by circumstances beyond my control. You were more than a supervisor, being so patient with me. Patience (one of the Fruits of the Holy Spirit) is a virtue, and you exercised it with me. Thank you, and God bless you, my dear Prof.

- Prof. G.G. Cuthbertson, for encouraging me, and insisting that I carry on. You kept me going.

- Dr. J.M. Ranko-Ramaili, for your relentless support and encouragement.

- Dorcas Mosala Khomari, you were there from the very start of this study, willing to listen to me and giving your honest opinion. Thank you.

- the DHET and the CEO, for permitting me to conduct the study at one of your college campuses. I enjoyed every moment of our interaction.

- the Campus Manager, Divisional Heads and the lecturers, for willingly giving me of your precious time, and for sharing your rich experiences in a changed TVET landscape.

- Prof. Laurette Pretorius. I appreciate your understanding and consideration.

- my colleagues at the College of Graduate Studies, in particular the 'family' at the Academy of African Languages and Science, for your encouragement and support.

- my mother, aunt and late grandmother. Your wish is three-quarters met. You first started the journey *for* me, and then *with* me. Thank you.

- my sister, Merika Mashile, for praying the Finisher's anointing over my study, especially when I became despondent. Thank you, 'Lilita'.

- my sons, Kagiso-Portia and Kabelo, who at times stayed up late just to be there with me for trouble-shooting, and at times, to meet deadlines.

- my five grandchildren, my friends and relatives who prayed for and with me when I needed strength.

- Lastly, my daddy, Bishop D.J. Comfort and the Favors Cathedral Church, for their fervent intercessory prayers and their trust in me that with God, I can.

ABSTRACT

The Technical Vocational Education and Training (TVET) system in South Africa has undergone transformation. This includes the introduction of the National Certificate (Vocational) [NC (V)]. The literature on curriculum development and on the TVET college sector in South Africa informed a qualitative inquiry into the lecturers' experiences of the implementation of the NC (V). The research site was the Tshwane South TVET College, Gauteng Province. Data were gathered by means of individual and focus group interviews with the Campus Manager, four Divisional Heads, and seven lecturers, selected by means of purposeful sampling. The findings were organised around the following key themes, namely the limited participation of the lecturers in curriculum design, the effectiveness of curriculum dissemination, the lecturers' participation in curriculum review, their perceptions of the NC(V) entry level requirements, the NC(V)'s positioning on the NQF, assessment in the NC(V), the fit between the lecturers' qualifications and the curriculum, the lecturers' capacity-building, and finally, their perceptions of the involvement of the industry in the NC(V).

Key words:

Technical Vocational Education and Training

South Africa

National Certificate (Vocational)

Qualitative inquiry

Tshwane South TVET College

Interviews

LIST OF ABBREVIATIONS

CNE	Christian National Education
CPIX	Consumer Price Index
DBE	Department of Basic Education
DET	Department of Education and Training
DH	Divisional Head
DHET	Department of Higher Education and Training
DoE	Department of Education
DoL	Department of Labour
ETDP	Education Training and Development Practices
FET	Further Education and Training
GCE	General Certificate of Education
GET	General Education and Training
HRDC	Human Research Development Council
HSRC	Human Sciences Research Council
LoTL	Language of Teaching and Learning
NATED	National Technical Education
NCFE	National Committee on Further Education
NC (V)	National Certificate (Vocational)
NPC	National Planning Commission
NQF	National Qualifications Framework
NSC	National Senior Certificate
NSF	National Skills Fund

NSFAS	National Student Financial Aid Scheme
OECD	Organization for Economic Co-operation and Development
PDE	Provincial Department of Education
PSET	Post-school Education and Training
RSA	Republic of South Africa
SACE	South African Council of Educators
SAQA	South African Qualifications Authority
SETA	Sector Education and Training Authority
TSC	Tshwane South College
TVET	Technical Vocational Education and Training
VET	Vocational Education and Training

TABLE OF CONTENTS

CHAPTER 2
CURRICULUM DEVELOPMENT AND THE VOCATIONAL AND TECHNICAL EDUCATION (VET) CURRICULUM

CHAPTER 3
OVERVIEW OF THE PROVISION OF TECHNICAL VOCATIONAL EDUCATION AND TRAINING IN SOUTH AFRICA

CHAPTER 4
THE RESEARCH DESIGN

CHAPTER 5
PRESENTATION OF THE FINDINGS

CHAPTER 6

SUMMARY OF THE RESEARCH, FINAL CONCLUSIONS AND RECOMMENDATIONS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

CHAPTER ONE
BACKGROUND, PROBLEM FORMULATION, AIMS AND METHOD

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

During the apartheid period (1948-1994) the education and training sector in South Africa was provided for by a highly fragmented, unequal and racially-based system of national education departments. In particular, the vocational education and training (VET) sector, as it was then known, comprised a complex mixture of state-aided, state, and manpower homeland-based technical colleges, the so-called historically-white autonomous technical colleges, and the less autonomous historically-black urban technical colleges, homeland technical colleges and lower level training centres (McGrath, 2004; Akoojee & McGrath, 2007; Booyens, 2010; Powell, 2013). After the first democratic elections in 1994 the public Further Education and Training[1] (FET) sector was restructured and transformed by means of a series of policies and by legislation (cf. Table 1.1). The FET system, which was still fragmented along racial lines at every level, signalled an urgent need for overhauling, integration and articulation vertically and horizontally, for the redesigning of the curricula for relevancy and currency; for the upgrading of the lecturers' qualifications; for a new infrastructure; for the revisiting of management systems to make them more accountable and efficient; and for the overhauling of the assessment systems (Ensor, 2003:327; McGrath, 1998; 2000).

In Table 1.1 the transformation landmarks from 1995 to 2014 in the public FET sector are indicated, demonstrating the ongoing complexity of the system, even today. The Government Gazette (RSA, 2014:9) mentioned that "the evolution of vocational education in South Africa remains complex and multifaceted; and even controversial."

These landmarks and their implications will be discussed in greater detail in chapter 3.

[1] From 1994 to January 2014 the vocational education and training sector was known as the Further Education and Training (FET) sector. As from 15 January 2014 the Further Education and Training sector was renamed as the Technical Vocational Education and Training (TVET). In this dissertation terminology will be used according to designation during different periods of time.

Table 1.1: Public TVET College sector transformation landmarks: 1995 to 2014

Date	Transformation Landmark
1995a	National South African Education and Training System established
1995b	South African Qualifications Authority (SAQA) Act (Act.58 of 1995) and the National Qualification Framework (NQF)
1996	The National Education Policy Act (Act. 27 of 1996).
1998	The Further Education and Training Act (Act 98 of 1998).
2001a	The General and Further Education and Training Quality Assurance Act (Act 58 of 2001).
2001b	A New Institutional Landscape for Public Further Education and Training Colleges: Reform of South Africa's Technical Colleges
2006	The Further Education and Training Colleges Act (Act 16 of 2006)
2007	National policy regarding Further Education and Training Programmes: approval of the amendments to the certification requirements for the National Certificate (Vocational)
2008	National Qualifications Framework Act (Act 67 of 2008), Articulation Policy.
2012a	The Further Education and Training Act, 2006 (Act 16 0f 2006) and the National Qualifications Framework Act, 2008 (Act 67 of 2008). Amendments to the National Policy regarding Further Education and Training programmes: Approval of the documents, policy for the National Certificate (Vocational): Qualifications at Levels 2 to 4 on the National Qualifications Framework (NQF).
2012b	The Green Paper for Post-school Education and Training
2013a	The Further Education and Training Colleges Amendment Act (Act 1 of 2013)
2013b	The White Paper for Post-school Education and Training: Building an expanded, effective and integrated post-school system

To organize the ensuing discussion, these landmarks are referred to according to the three phases used by Powell (2013) to describe the evolution of the FET College sector as informed by the

stages of the development and implementation of the policy. Powell's (2013) demarcation of the phases is useful in ordering such a complex and fluctuating field that is still under constant review. A discussion of the third phase (Deconstruction – a new moment) has been expanded by reference to the 2013 White Paper on Post-school Education and Training (DHET 2013a).

Curriculum change in the sector, which incorporates a brief introduction to the NC (V), the topic of this dissertation, is presented in the ensuing section (1.1.1).

a) 1994-2003: Period of reconstruction

The period 1994-2003 marks the first decade of the democratic dispensation in South Africa. This period was characterised by the reconstruction of the South African socio-economic configurations that led to the establishment of a national South African education and training system in 1995 (Powell, 2012). This, in turn led to the formation of the South African Qualifications Authority (SAQA) and the National Qualification Framework in 1995, which were established by the SAQA Act (Act 58 of 1995) (SAQA, 1995). This was followed by the promulgation of the FET Act (Act 98 of 1998) (RSA, 1998). 2001 saw the unveiling of a national education plan for public FET colleges: *A new institutional landscape for public Further Education and Training Colleges*: *Reform of South Africa's technical colleges* (Department of Education (DoE), 2001). This plan was aimed at transforming public FET colleges from dysfunctional to effective institutions, capable of developing skills and addressing the skills shortage deficit in South Africa (DoE, 2001). This necessitated the merging of the 152 state-aided, state and manpower technical colleges, which had been racially segregated, into 50 multi-sites FET colleges (DoE, 2001; Akoojee, 2008; 2009). The mergers culminated in 2003, when all colleges were conceptualised as public FET colleges to provide the intermediate to higher skills required for economic growth and for participation in a competitive global economy (Powell, 2013). The mergers were driven by the need to desegregate; however, they were also intended to address concerns of quality, relevance, staffing, management and leadership (Powell & McGrath, 2014).

b) 2004-2009: Period of early critique

The period of early critique, so termed by Powell (2013), was also a period of consolidation in FET. Powell (2013:67) describes the phase as follows:

> *The post-democratic government was firmly established and the policy and structural foundation of education and training in place. This period saw the consolidation of the FET college landscape and a policy shift to institutional reform, particularly the development and finalisation of the FET Colleges Act, the finalisation of college mergers, the appointment of college principals and new governing councils, the management of the R1,9 billion recapitalisation fund and the development and implementation of the new FET college curriculum.*

This period culminated in the establishment of education and training in two distinct departments, namely the Department of Education (DoE) and the Department of Labour (DoL) (Powell, 2013), the former with the task of transforming and funding the FET colleges, and the latter with the task of isolating the skills needed for the economy, and the funding of skills programmes. This division was problematic and sharpened the divide between academic and vocational programmes (Kraak, Lauder, Brown & Ashton, 2006). In addition, a new FET curriculum, the NC (V), was introduced (cf.1.1.1).

c) 2009 to the present: Deconstruction - A new moment

The period 2009 to 2013 is termed by Powell (2013) as the period of 'Deconstruction – A New Moment'. This period saw the creation of the new Department of Higher Education and Training (DHET), with the responsibility for higher education, further education and work-based skills being repositioned from the Department of Labour. The aim was to create "a single, coherent, differentiated and highly articulated post-school education and training system" (DHET, 2011:4). This was an important step forward in organising the sector more efficiently. It also shifted the

role of the colleges from a single focus on meeting industrial needs to incorporate a second focus, namely to develop and uplift disadvantaged learners and communities by providing post-school education and training (Powell & McGrath, 2014).

In 2012 the Green Paper (now the White Paper for Post-school Education and Training) advocated a TVET college system that is located and rooted within communities as a pivotal first priority for the DHET's attempt to strengthen and expand the post-school education system (PSET) (DHET, 2012a). The TVET college system is pivotal in the country's attempt to overcome the prevailing structural challenges (DHET, 2012a).

1.1.1 Curriculum change in FET

During the period of apartheid in South Africa different curricula were introduced to entrench the former government's educational policy of separate development according to race. Curriculum development was the pursuit of white males and was largely "non-participative for the majority of the departments" (Christie, 2006). Reinforcing the imposition process of curriculum development for the education of blacks, Stoffels (2004:3) argues that 'experts' in the Department of Education and Culture, which catered only for white learners developed the core syllabi, whilst the Department of Education and Training, which catered only for African learners, participated "as mere observers and recipients of these prescriptive and content-laden syllabi." Carl (2009:18) contends that South Africa's curriculum development practices and procedures were, until the early 1990s, characterised by a process whereby the curricula were normally designed at central level and then disseminated in a 'top-down' manner to the level of implementation (cf. par. 2.2.1.1).

During the apartheid era, the diverse range of vocational and technical colleges was served by the National Technical Education (NATED) curriculum, N1 – N6, a job-specific curriculum, and its concomitant technical vocational qualifications (Powell 2013). This curriculum had remained unchanged after 1994 until 2006 when the FET NATED curriculum was replaced by the three-year National Certificate (Vocational) (NC (V)) which combined job-specific skills with generic

skills (DHET, 2012a; Powell, 2013). The NC (V) curriculum was introduced in the classrooms of the FET colleges in 2007 (DoE, 2007a; Papier, 2010). The NC (V) comprises transformative curricula, developed to redress the past apartheid legacy and to respond to the priority skills demands of the economy. The NC (V) offers core industry-focused programmes on the NQF levels 2, 3, and 4. These programmes also incorporate three fundamental subjects: a language as a First Additional Language (FAL), Mathematics or Literacy Mathematics; and Life Orientation (DoE, 2007b; Papier, 2010; Powell, 2013). The implementation of the NC (V) was a phased-in process starting with the enrolment of learners[2] at Level 2 in 2007, Level 3 in 2008 and Level 4 in 2009 (Papier, 2010). To qualify for admission to these programmes learners should have passed Grade 9 of the General Education and Training (GET) band (DoE, 2007). The duration of the NC (V) programme is one full year per level, with each year serving as an exit level. At the completion of every level, a certificate is issued (DoE, 2007). To obtain a diploma in a specific field, learners need to have passed all the three levels of the NC (V) (DoE, 2007).

Curriculum change and implementation, such as outlined above, always present educators and lecturers at all levels of the education system with formidable implementation challenges. Lecturers as implementers of curriculum change need to make meaning of what is expected of them and on how they perceive the extent of their involvement in an innovation (Young, 2006). This impacts on how they relate to the innovation (Robinson 2002). Their inputs should be recognised to ensure ownership of curriculum change (Darling-Hammond, 2013). Every change usually encounters some resistance and rarely immediate acceptance. Resistance is often associated with fear of change or of the unknown; alternatively, resistance may also be linked to how change is disseminated, especially when implementation processes precipitate disgruntlement on the part of agents of the implementation (Carl, 2009). Lecturers require knowledge, new abilities, sufficient time and appropriate technical support to deal with curriculum change in a smooth and seamless way (Penuel, Fishman, Yamaguchi & Gallagher, 2007; Carl, 2009; Papier, 2010).

[2] The terms 'learners' and 'students' are used interchangeably in the dissertation with reference to the TVET colleges. The Further Education and Training Colleges Act (Act 16 of 2006) (RSA 2006:8) defines a *student* as any person registered as a student at a college.

In the case of the implementation of the NC (V), curriculum change occurred simultaneously when FET college staff were grappling with many other organisational, administrative and practical challenges posed by the mergers of the 152 technical colleges into 50 multi-site FET colleges (Papier, 2010: Powell, 2013). Merging the state-aided, state technical colleges and homeland manpower technical colleges of the previous dispensation itself signalled a transformation of the role of the lecturer staff from a narrower definition of teacher to that of a facilitator of learning (Young, 2006). The mergers also potentially affected clarity on the meaning of the vocational role of FET colleges which had been focused on job-specific skills to a broader conceptualisation of employability (Young, 2006). In the light of these pressures brought about by transformation, a need was created for greater input and participation by lecturers regarding the changing landscape in which they operated. In this regard, Carl (2005:223) makes the point that "there should . . . be an opportunity for their [lecturers'] "voices" to be heard before actual implementation". This chance to be heard would have reduced possible lecturer resistance to curriculum change and implementation in TVET colleges in South Africa, as embodied in the NC (V) (RSA, 2006).

1.1.2 Problem statement and rationale for the study

Not much research has been done on the TVET college sector, and is confined to the labours of a small group of scholars (Wedekind, 2009; 2013). However, it has progressed significantly in recent years (Powell 2013; Powell & McGrath, 2014). Powell (2013) asserts that research on the sector has in particular neglected the experience of lecturers and students in TVET colleges during transformation. Wedekind (2009) indicates that the body of research dealing with the college-based lecturers' experience of change in the sector is extremely limited. He (2009) argues that much research on the process of transformation of the TVET sector has neglected to understand the people in the system and their need. This study, by exploring the experiences of lecturers at a selected TVET college, seeks to add to the existing body of research which focuses mainly on structures and systems in TVET (Powell, 2013). The study seeks to make a contribution by exploring the experiences and views of lecturers as crucial implementing agents of the curriculum.

1.2 RESEARCH QUESTIONS

In the light of the above discussion, the primary research question can be stated as:

How do the lecturers experience the implementation of the National Certificate (Vocational) in Technical Vocational Education and Training Colleges in South Africa?

In order to address this research question the following sub-questions need to be answered:

- How is the curriculum and curriculum development defined and described, with special reference to the vocational and technical curriculum, and what philosophical perspectives shape the development of the vocational and technical curriculum?
- What role does Technical Vocational Education and Training (TVET) play within the educational post-school provisioning in South Africa? What has the process of curriculum reform been since 1994? What particular challenges are faced in the effective implementation of this reform?
- What has the experience of a purposeful sample of college-based lecturers at a selected TVET College been of the implementation of the NC (V) curriculum?
- Based on the findings of the literature and the empirical inquiry, what recommendations can be made for the improvement of practice?

1.3 THE AIM OF THE RESEARCH

The aim of the research is to ascertain how the lecturers experience the implementation of the NC (V) in Technical Vocational Education and Training (TVET) Colleges in South Africa.

The objectives are:

- to define the curriculum and curriculum development, with special reference to the vocational and technical curriculum and to indicate the philosophical perspectives in the development of the vocational and technical curriculum;
- to provide a brief overview of the provisioning of TVET in the post-school education sector in South Africa, to describe the process of curriculum reform since 1994, and to identify the specific challenges faced in the effective implementation of this reform;
- to explore how a purposeful sample of TVET college lecturers have experienced the introduction of the NC (V) curriculum; and
- based on the findings in the literature and the empirical inquiry, to make recommendations for a possible curriculum implementation model and strategies that could enhance practice.

1.4 THE RESEARCH DESIGN

The problem as indicated above is investigated by means of a review of the literature and by an empirical investigation, using a qualitative approach**.**

1.5 LITERATURE REVIEW

A literature review offers an informed assessment of the existing research on the topic under study. It is a critical synthesis of existing research that demonstrates that the researcher has read extensively and intensively on the subject (Vithal & Jansen, 2012). The goal of a literature review is to "identify limitations in existing research on a subject in order to justify the proposed research" (Vithal & Jansen, 2012:16). In this study relevant legislation and policy, reports, research reports and articles, journal and press articles, Internet sources and other relevant information on issues relating to vocational and technical education (VET) globally and to TVET in South Africa were consulted in order to assess the state of the research, to identify gaps, and thus to inform the empirical inquiry.

1.6 THE EMPIRICAL INVESTIGATION

A qualitative approach was adopted to explore the lecturers' experiences of the implementation of the NC (V). A synopsis of the investigation is given here; full detail is provided in chapter 4.

The study is primarily based on the ontological and epistemological interpretive philosophy (Kuper, Reeves, & Levinson, 2008). Interpretive research is fundamentally concerned with the meaning it seeks with a view to understanding social members' definition of situations, in this case the college lecturers (Henning, Van Rensburg & Smit, 2004). The framework used allows for the subjective experiences and perceptions of TVET College lecturers to be expressed and interpreted in their natural context (Henning *et al*., 2004). The qualitative research approach was deemed appropriate as it allowed for the in-depth description and the highlighting of the strengths and challenges encountered in the implementation of the NC (V) curriculum from the point of view of the participants.

1.6.1 Selection of the site

The site of the research was the Tshwane South College (TSC[3]), Odi campus, which is one of the eight TVET multi-site colleges located in the Gauteng Province. The campus was selected by a combination of purposive and convenience sampling. The aim of purposive sampling is to locate information-rich individuals or cases likely to be knowledgeable and informative about the phenomena under investigation (Tongco, 2007). The TSC, Odi campus, was regarded as an information-rich site due to its history in the pre- and the post-merger periods (pre- and post-1994) (cf.1.1). The TSC, Odi campus, evolved from a former homeland Manpower Center (Tshwane South TVET College, 2015) which functioned as a provider of vocational and technical education prior to 1994. In 2003 the former technical and vocational college campuses and/or manpower centers merged to become part of the multi-site FET colleges. In 2006, this campus was transferred

[3] The name and identifying detail, such as the geographical location of the research site is used throughout the study. Ethical clearance was obtained from the Department of Higher Education and Training (see appendix B), the University of South Africa (see appendix A). However, the identity of all the participants has been protected by the use of pseudonyms and the removal of personal identifying detail (cf. Chapter 4).

from the North West Province to Gauteng due to the provincial border demarcations (Tshwane South TVET College, 2015).

The element of convenience also played a role in the selection of the site: the proximity of the campus to my home and my workplace made data-gathering accessible and cost-effective. Moreover, I had briefly worked at the campus as a lecturer, and had access to gatekeepers who facilitated my entry into the research site.

1.6.2 Selection of the participants

Twelve participants were selected as being information-rich by means of purposive sampling (N=12) on the presumption that they would generate useful data for this study (Patton & Cochran, 2002). The participants embodied specific characteristics that were integral towards addressing the research question (Patton & Cochran, 2002). The participants were the following, namely seven full-time lecturers, the campus manager who has the responsibility of ensuring compliance to policies, including the implementation of the NC (V), and four divisional heads (with co-ordination and lecturing responsibilities). The criterion for the selection of the participants was their in-depth engagement in implementing the NC (V) curriculum since its inception in 2007 to the present. To recruit participants, I solicited the help of gatekeepers, that is, the campus manager and his designee, to identify the lecturers and management staff who would be willing to participate in this study (Patton & Cochran, 2002).

1.6.3 Data-gathering

Data were gathered from the participants as the authentic and original owners of knowledge in the natural setting at the campus, using both in-depth individual interviews and focus group interviews (Cohen, Manion, & Morrison, 2002; Walsham, 2006; Baxter & Jack, 2008; Kuper *et al.*, 2008). The lecturers and the campus manager participated in semi-structured in-depth individual interviews supported by an interview guide (Appendix E**).** After receiving the names of suitable participants, I personally invited the participants to a discussion lasting 30 minutes where I briefed

them on the research topic, the aims and objectives of the study, and their role in the study. I negotiated interview times and venues that would best suit them. Each lecturer participant signed a letter of consent (Appendix C) before the interview was conducted. I recorded and transcribed the interviews verbatim. The duration of each interview was 30-45 minutes. The four divisional heads participated in two focus group interviews. I first met with all the participants in a one-on-one situation and explained the aim of the research. I requested them to indicate a time and venue that suited them for the focus group interviews. Each divisional head (DH) signed a letter of consent **(**Appendix D) before participating in the interviews. The first focus group session lasted 90 minutes. It was supported by an interview guide (Appendix F). I recorded and transcribed all the interviews. Transcribing the data can be considered the basic stage in data-analysis in qualitative research. During the process preliminary research findings emerged (Patton and Cochran, 2002). A second focus group interview of 45 minutes was also held with the divisional heads. At this interview copies of the transcription of the first focus group interviews were returned to the participants for their scrutiny, and any points that needed clarification were dealt with. I made field notes during the second focus group interview.

1.6.4 Data-analysis

According to Baxter and Jack (2008), in qualitative study the collection and analysis of the data occur concurrently. Full details are presented in Chapter 4.

1.6.5 Trustworthiness of the data

In qualitative research the reliability and validity of the data are referred to as its *trustworthiness*. The concern with trustworthiness is whether the whole process from the research question to its implications was truly transparent and open to critical interpretation by both the researchers and the users of the research findings - internal and external; whether the concepts used in the research made sense, given the data-collection, analysis and interpretation; whether the arguments were compelling, and were supported with sound reasoning and ample evidence (Lincoln & Guba, 1985; Loh, 2013). Brown (2001) advises that to enhance the trustworthiness of the research findings,

researchers usually carry out triangulation, among others. This entails deliberate attempts to seek evidence from a wide range of sources, and comparing the findings from those different sources (Patton & Cochran, 2002). Guba (1981) and Shenton (2004) summarise the four criteria for trustworthiness as: credibility, dependability, confirmability and transferability, and suggest means to ensure compliance.

The strategies used in this study to meet these criteria are discussed in chapter 4.

1.6.6 Ethical considerations

As a researcher I was conscious of my responsibilities towards the research participants, the institutions they represent and my own institution.

Permission for this study was obtained from:

i) The Ethical Committee of the College of Education, University of South Africa. This permission included using the actual name of the institution investigated, as mentioned in Footnote 3 (See Appendix A).
ii) The Department of Higher Education and Training. Permission included using the actual name of the institution investigated, as mentioned in Footnote 3 (see Appendix B).
iii) The individual participants' consent letters (see Appendix C and D).

Informed consent comprised informing the participants of the objectives and the duration of the study; their voluntary participation; the option to withdraw at any stage without fear of intimidation; anonymity and confidentiality; and the safeguarding of privacy (Cohen *et al.*, 2002; Kuper *et al.*, 2008; Brewer, 2007; Baxter & Jack, 2008). Field notes, digital recordings and transcriptions were kept on a password-locked computer throughout the study. The data generated were used only for the purposes of this study. All the participants were identified in the report (cf. chapter 5) by pseudonyms. Upon the successful examination of the dissertation, an electronic synopsis of the dissertation would be distributed to all the participants.

1.7 CLARIFICATION OF THE TERMS

Terms are clarified according to how they have been used in the context of this study.

1.7.1 Curriculum implementation

Curriculum implementation is a structured process that requires rigorous planning and strategies for the phasing-in of the programmes. The involvement of all stakeholders, such as the national department or ministry of education, administrators, the teaching staff, the parents, the learners and the interest groups, is critical at all the planning stages of a new policy or an innovative amendment of an existing policy. In this case, the input of all the stakeholders is necessary to consider the conceptualisation, design, development, dissemination, implementation and the evaluation of the curriculum (Slattery, 2013).

1.7.2 Further Education and Training College

A Further Education and Training (FET) College is the term used to refer to a former technical college that facilitates NC(V) courses from L2 to L4 and NATED courses to apprentices up to National N Diploma level (DHET, 2012b:20). This terminology was used during the period 2003 to 2014.

1.7.3 Lecturer

A *lecturer* is defined as **"**any person who teaches, educates or trains other persons or who provides professional educational services at any college" (RSA, 2006:8). Other vocation and technical education systems in other countries also use the term *instructor* for a lecturer (cf. Finch & Crunkilton, 1999). In this dissertation the terms are used according to the national context.

1.7.4 Manpower centres

Manpower centres were the formal training centers in the former homeland's technical vocational education and training system during the apartheid period until the merges took place (DHET, 2013b).

1.7.5 Multi-site Technical Vocational Education and Training (TVET) College

A multi-site TVET College is a college with more than one campus due to the merges of the former 152 technical colleges into 50 TVET colleges (DHET, 2013b).

1.7.6 National Technical Education (NATED)

NATED courses, also known as Report 191 or N courses, in particular N1, 2, and 3 were to be phased out and replaced by the NC (V). The N courses were seen as occupationally-oriented and narrow in scope, as opposed to the NC (V) which was deemed to be closely aligned to the needs of business and labour (Akoojee, 2009). The N courses have been reinstated since 2010 because of the vocational and practical emphasis of the courses (DHET, 2013b).

1.7.7 National Certificate (Vocational) (NC (V))

The National Certificate (Vocational) (NC (V)) is the curriculum that was introduced to public FET colleges in South Africa in 2007. NC (V) replaced the NATED courses (N1-N3) that were offered at traditional technical colleges (DoE, 2007a; 2007b).

1.7.8 Post–school education and training (PSET)

Post-school education and training (PSET) refers to a diverse set of education and training institutional arrangements for school leavers as well as for those adults who have never been to school but require education and training (DHET, 2013b:10).

1.7.9 Technical Vocational Education and Training (TVET) Colleges

The name of the TVET Colleges is a new term given to the former FET colleges because the name "better reflects their nature and better defines their main role in the diversified post-school education and training system" (DHET, 2013b:12).

1.7.10 Vocational Education and Training (VET)

VET is a term often used in the general literature to describe vocational education and training in certain education systems (Finch & Crunkilton, 1999). Various other synonyms are also used in the literature according to the context, such as vocational education (VE), career-technical education (CTE), vocational technical education (VTE), technical vocational education and training (TVET), and education for work.

1.8 CHAPTER DIVISION

The dissertation is divided into six chapters as follows:

Chapter 1

This chapter introduces the topic and gives the background to the study. It also looks at the problem statement, the aims of the research, the research questions and the objectives and the motivation for the research.

Chapter 2

This chapter examines and defines the curriculum and curriculum development with special reference to the vocational and technical curriculum, and investigates the philosophical perspectives that shape the curriculum development of the vocational and technical curriculum.

Chapter 3

This chapter outlines the evolution of the TVET, the aims of the TVET College sector, its management, governance and funding; it discusses curriculum change and the implementation of the NC (V) since 2007.

Chapter 4

In this chapter the research design, site selection, sampling, instruments, data-gathering and analysis will be explained; the applied theoretical framework, techniques and methods will be justified.

Chapter 5

An overview, synthesis and interpretation of the findings will be elaborated on in this chapter.

Chapter 6

Conclusions will be drawn from the primary and secondary data that were collected and reviewed, and recommendations will be made based on the findings and the conclusions.

1.9 CONCLUSION

This chapter introduced and gave an overview of this study. In the light of this discussion, the problem statement, research questions and the aim of the study were formulated. This was followed by a synopsis of the research design. Key terms were clarified and an outline of the structure of the dissertation was given.

In the following chapter the researcher discusses the theoretical framework that underpins the development and implementation of the technical vocational education and training curriculum.

CHAPTER 2
CURRICULUM DEVELOPMENT AND THE VOCATIONAL AND TECHNICAL EDUCATION (VET) CURRICULUM

2.1 INTRODUCTION

This chapter provides a review of the literature dealing with curriculum development in general and curriculum development in vocational and technical education (VET) in particular. VET is used and defined as elaborated on in chapter 1, paragraph 1.7.10. The chapter commences with a definition of the term *curriculum* and the different curriculum types. Thereafter, attention is given to conceptualising the curriculum within the context of VET and the main philosophical perspectives which shape decision-making in curriculum development in VET. The three stages of curriculum development, as demarcated by Finch and Crunkilton (1999) are expounded. The chapter closes with a discussion of barriers to curriculum implementation and the key role played by lecturers (cf.1.7.3) or teachers in schooling systems in the process.

2.2 THE CURRICULUM

There are a myriad of definitions of what a curriculum is (Westbury, 2008). Levin (2008:7) puts it very simply, namely a *curriculum* as "an official statement of what students are expected to know and be able to do." Finch and Crunkilton (1999) define a *curriculum* as the sum of the learning activities and experiences that a student has, under the auspices or direction of the educational institution. Walkington (2002) states that a curriculum comprises various ways of organizing content focused upon what the students need to know. Dopson and Tas (2004) describe a curriculum as an organized set of experiences to which students are subjected so that their behaviour will be modified in a desired and predetermined manner. Van den Akker, Fasoglio and Mulder (2010:5) give a generic description of a curriculum "as a course or plan for learning." Billett (2006) adds to these definitions of curriculum an important dimension, namely that of the student's preparation for the workplace. He (2006:1) regards a curriculum as "directed to individuals' progression towards full effective workplace performance, yet whose enactment is

shaped by workplace factors and is ultimately experienced by workers as learners." Deducing from Billett's (2006) perception, a curriculum is an all-encompassing plan comprising of general (academic) education as well as preparation for a vocation in particular. Definitions of a curriculum should thus not only focus on the aims and objectives of the curriculum, content and instruction; it should also focus on why and how these aspects relate to the student's context: life-outcomes, including employment. In particular, the VET curriculum is aimed at the inclusion of courses and experiences associated with the preparation for life and for earning a living in a specific occupation (Finch & Crunkilton, 1999; par. 2.3).

Furthermore, these definitions imply that a curriculum is not only the focus of curriculum specialists. Many other stakeholders in society - the government, politicians, employers and employer unions, as well as teachers, students, parents and academic institutions - all have an interest in what goes into the curriculum (Karseth & Sivesind, 2010). McGrath (2007) argues that curriculum development should be a consultative process congruent with stakeholder views and needs. In developing a curriculum, stakeholder inputs with regards to knowledge and content need to be solicited from the planning stage to implementation and review. Thus, curriculum designers ought not to lose sight of the pivotal role significant stakeholders in the teaching and learning context play. The emphasis, therefore, should not only be on the educational authorities who initiate curriculum development. For example, teachers (in the case of this study, lecturers) as significant stakeholders should also be considered because they are the ones to put the curriculum into operation and to effectively translate it into practice. The teacher's role in curriculum implementation illustrates what Darling-Hammond (1990:339) calls "the power of the bottom over the top". Although it is incumbent on the educational authorities to create an environment in the education system that would allow for the effective and efficient translation of a curriculum into practice, teachers ought to be seen as by far the most important agents of curriculum development and implementation (Darling-Hammond, 2006). Thus, teachers should be involved from the outset of curriculum development. Another significant stakeholder is the student for whom the curriculum is developed. Curriculum, for the student, is intended to shape and mould him/her in a predetermined manner. A symbiotic relationship amongst these agents of curriculum development ought to exist at all levels of an education system: the macro level (the national department or

ministry of education), the meso level (states, provinces or districts), the micro level (schools and teachers), and the nano level (the students) during all the phases of curriculum development, from the research, initiation, design, dissemination and implementation phases to the evaluation phase, namely the review (Van den Akker *et al*., 2008). There needs to be a conjunction not a disjunction with regard to what the macro, the meso, the micro, and, to a certain extent, the nano levels have to contribute to the curriculum. The links need not only to be clear from the outset to show that the macro, meso and micro levels need to function as components of a single process, but they also need to be continually sustained throughout all the curriculum processes.

2.2.1 Types of curriculum

Different types of curricula inform the teaching and learning contexts. The determining factor is the goals and objectives envisaged to be attained. In this section, three types of curriculum, namely the centralised national curriculum, the decentralised site-based curriculum, and the subject-centred curriculum are explained to elucidate the crucial elements in each, which also impact on curriculum implementation. Each of these curriculum models may be applied to the development of a curriculum for vocational and technical education.

2.2.1.1 The centralised national curriculum

Gvirtz and Beech (2004) argue that a centralised national curriculum is a highly centralised model of curricular regulation whereby the national state monopolises all the decisions about the objectives and content of education, designs and develops curriculum policy documents, and disseminates them directly to the states, the provinces or the districts without the latter's contribution. This type of curriculum seeks to guarantee that the teachers teach the same content to every student in order to promote the national identity or nationhood (Gvirtz & Beech, 2004). By implication, a centralised national curriculum would entail a top-down approach to curriculum development and implementation (MacDonald, 2003). Through the top-down approach, the state, with no or symbolic consultation with the teachers, communities and other stakeholders, initiates, develops, disseminates and presents a curriculum to educational institutions for implementation

and, in certain contexts, the state also monitors and evaluates the curriculum (Gvirtz & Beech, 2004; Shawer, 2010). The state also procures the services of consultants in the form of experts to define, what Shawer (2010) terms 'curriculum knowledge', by determining what the teachers should teach, when and how. This top-down approach takes place in linear and systematic stages (MacDonald, 2003). This approach is deemed to be highly prescriptive and has the potential to influence the teachers' approach to curriculum delivery adversely. It is presumed that in a top-down approach context, the teachers would implement such a curriculum as it is presented, irrespective of whether they understand it or not. Potentially, this would impinge on their creativity and innovativeness. The common approach teachers adopt with a top-down oriented curriculum is the fidelity approach to curriculum implementation whereby the focus is only on content transmission (Fullan & Pomfret, 1977; Shawer, 2010). A *fidelity* mode to curriculum implementation is defined as a process whereby a particular curriculum is implemented as intended by the developers. Teachers are accorded no role in the design of the curriculum apart from that of the implementation of the curriculum as it is intended. In some cases the teachers would affect minor modifications because the monitoring and evaluation of the curriculum is orchestrated, also from the centre. It is deduced, therefore, that with a centralised national curriculum the teachers have no voice or say from the outset of the curriculum development to its implementation, monitoring and evaluation, except the assessment of the classroom activities. The transmission model, it is assumed, disregards both the prior knowledge and experiences of the teachers. According to Gvirtz and Beech (2004), the basic idea in a centralised national curriculum is to ensure that every school or educational institution behaves as one teaching the same content at the same time and with the same methods to every student. Centralised state-based curriculum development offers the state a set of powerful tools for managing national educational problems and needs, and allows the state great latitude to 'steer' the field of curriculum-making, and thus what happens in the schools (Westbury, 2008).

2.2.1.2 Decentralised site-based curriculum

A decentralised site-based curriculum (DSBC), by implication, means that all curricular decisions ought to be made at school level. This denotes that the development to the implementation and

assessment activities in the decentralised site-based curriculum context (planning, designing, producing, implementing, and monitoring and evaluation) are conducted at the district and/or school level (Gopinathan & Deng, 2006). DSBC has some underpinnings of a centralised national curriculum. The design of the general objectives and the processes of control are still the domain of the state, and therefore centralised. It is only at the implementation phase where curriculum activities are decentralised (Gvirtz & Beech, 2004). Proponents of the decentralised site-based curriculum see this type of curriculum as an attempt to create a curriculum that is more meaningful and relevant to the students and the communities (MacDonald, 2003; Gvirtz & Beech, 2004; Gopinathan & Deng, 2006). The argument is that by involving the teachers in the curriculum processes, the decentralised site-based curriculum not only promotes the teachers' professional identity by developing their professional competence but also empowers them to take up their roles responsibly (Gopinathan & Deng, 2006).

The decentralisation of a curriculum curtails state control. It is a strategic change that emphasises meso and micro planning and a relook at the roles and responsibilities of the teachers. The decentralised site-based curriculum signals a move away from the top-down approach to curriculum development and implementation to a bottom-up approach; an approach which focuses more on the actions of the schools and districts as opposed to of the central government. This model of curriculum development attends to the nature of the problem designed to be addressed by "describing networks of implementation" (Schofield, 2001:251). This promotes a collaborative approach to curriculum development and implementation. The decentralised site-based curriculum approach, as Schofield (2001) attests, is also a methodological contribution to implementation-analysis. According to this approach, the teachers are accorded the opportunity for input in a meaningful way in policy-making by taking up their responsibility and asserting themselves in the process of curriculum decision-making (Schofield, 2001). They develop and/or change the existing curriculum during the process of implementation, what Fullan and Pomfret (1977) call "mutual adaptation", while Shawer (2010) calls it an *adaptation* or *enactment approach* to curriculum implementation.

On the one hand, the adaptation curriculum approach encourages the teachers to adjust the curriculum to suit their teaching and learning (Craig & Ross, 2008). On the other hand, through the enactment approach, the teachers create curriculum-in-action out of student experiences (Shawer, 2010). The role of curriculum developers in DSBC is to make adjustments to the curriculum objectives, while that of teachers is to adapt them for relevance to the school or classroom context (Shawer, 2010). Accordingly, the process results in conversations between curriculum developers, irrespective of who they are, and the teachers for introducing the adaptations necessary to match the curriculum to the local contexts. The approach, however, does not suggest that the knowledge of the curriculum would differ considerably from the fidelity approach, since experts still define the curriculum. What the adaptation approach signals is that curriculum change becomes more flexible through collaborative efforts between the teachers and the experts.

2.2.1.3 Subject-centred curriculum

The subject-centred curriculum is a subject-matter specific type of curriculum. With the subject-centred curriculum, the subject matter itself serves as the organising structure for what is being studied and how it is studied (Burton & Nwosu, 2002). In its purest form, the curriculum for each subject area is designed by subject matter experts and is intended to be studied using subject-specific methods and tools of inquiry. Its emphasis is on developing and understanding the major facts, concepts, contexts and processes specific to the subject content. Subject-centred curriculum is curriculum that is centred on a single subject or learning area. Each subject is taught at its scheduled time. A subject-centred curriculum describes and orders the objectives, goals, objects, content, methods, instructional learning activities, curriculum material, and evaluation procedures for a subject in a systematic way. It is preceded by broader or general curriculum development. The intentions of a subject curriculum one would argue, is more of an instructional design, namely designing programmes for the different learning areas. Finch and Crunkilton (1999) see instructional design as a micro activity that builds on curriculum development, implying that a subject-centred curriculum expounds on content that was identified in curriculum development during the content determination process. It is at the subject-centred curriculum level that strategies

that inform classroom activities are planned to help teaching and learning to take place to yield the desirable learning results.

2.3 CONCEPTUALISING THE VOCATIONAL AND TECHNICAL EDUCATION CURRICULUM

Since antiquity to around the eighteenth century, education for work took the form of an apprenticeship, whereby a learner understudied a seasoned craftsman or artisan on the job in order to learn a craft or trade (Finch & Crunkilton, 1999; Wang, 2011). Initially, at the advent of the Industrial Revolution in the 1800s, the apprenticeship programmes declined as the immediate need of factory owners and managers was cheap, unskilled labour. However, as industrialisation progressed, the need for trained, skilled workers became imperative and apprenticeships revived (Finch & Crunkilton, 1999). With the advancement of technology during the early twentieth century and beyond came a need for new equipment and a properly trained manpower to operate them. Consequently, the rise in the level of preparedness required the training of workers for different occupations and precipitated the demand for formal, institutionalised vocational and technical education. Thus, the Industrial Revolution and later the revolution in technology, although not the only factor, contributed largely to the demand and form of vocational and technical education in developed countries, that is, school-based vocational and technical education. Other factors beyond the scope of this research which were also a catalyst in the evolution of the present forms of school-based vocational and technical education were World Wars I and II (Wonacott, 2003).

Today the literature lacks consensus on the conceptualisation, nature, scope and location of vocational education (Rojewski, 2002). Various terms and abbreviations have also been used in different time periods and in different education systems to denote this type of education: vocational education (VE), career-technical education (CTE), vocational education and training (VET), vocational technical education (VTE), technical vocational education and training (TVET) and education for work, to name a few. In this regard, consideration of the context is probably the most useful way to define and determine the nature and scope of this type of education, with due

consideration of the terminology used. Patton (2005) argues that the concern of vocational and technical education is to develop students' lifelong learning, that is, the skills, attitudes and understanding to help them live and earn a living. In some education systems, such as Turkey, vocational and technical education is offered in formal and mass education institutions; vocational high schools are establishments for the training of technicians (Sağlam & Oral, 2010). Accordingly, vocational and technical education is seen as geared not only to meet the industry, commerce and the service sector needs for a qualified workforce, but also as a transitory phase from school system to work or university entry. Wang's (2011:9) notion of vocational and technical education is that it is a collaborative effort whereby the educational aim of transmitting society's heritage, its accumulated knowledge, values, and skills is realised. Education for work is premised on teaching skills to students that will be useful in the workplace (Wang, 2011). Implied in all these is vocational and technical education's sharp focus on the needs of multiple workplace-related environments, customers and levels of specialization (Finch & Crunkilton, 1999; Patton, 2005; Sağlam & Oral, 2010; Wang, 2011).

It can thus be concluded that curriculum development for any vocational education programme is extremely complex, given the great diversity in the field. Simply put, the National Association of State Directors of Career Technical Education Consortium (n.d.) in the U.S. identifies as a key principle for the vocational education curriculum a curriculum which draws its content, standards, accountability and organising principles from the workplace. Lynch (2000) expands on this definition by identifying four current schools of thought regarding the curriculum for vocational and technical education: i) a curriculum focused on education through occupations; ii) a curriculum which integrates academic and vocational education around broad career clusters; iii) a curriculum based on job-specific, entry level training for educationally disadvantaged students; and iv) technical preparation for an occupation which incorporates site-based learning.

2.3.1 Philosophic underpinnings of the vocational and technical education curriculum

A philosophy comprises a particular set of assumptions or ideas regarding the nature of the world, the individual's place in it and the meaning of life, including what it means to know and learn

(Schuh & Barab, 2007). At all levels of education, curriculum development is influenced by the philosophies (and the learning theories which emanate from a philosophical position) of those associated with the educational process, particularly the philosophies held either covertly or overtly by the key decision-makers involved (Finch & Crunkilton, 1999; McNergney & Herbert, 2007; Wang, 2011).

Finch and Crunkilton (1999) maintain that behaviourism was and still is the most influential philosophical influence on vocational and technical education. Rojewski (2002) argues that essentialism, pragmatism and social reconstructivism are the three main philosophical positions which underpin decisions regarding the curriculum for vocational and technical education. Doolittle and Camp (1999) add constructivism to this triad as the most recent influence. Wang (2011:45) singles out pragmatism as the predominant philosophy for VTE, reflecting the economic need for teaching vocational skills to prepare the workforce for competition in a global world.

However, Rojewski (2002) cautions that a single philosophical position seldom simplistically influences specific choices about the vocational and technical education curriculum; rather decision-making about curriculum aims, structure, instructional strategies, and delivery, and so usually depends on a combination of philosophical positions held. Thus, it is important for educationists to take note of a range of philosophical positions in order to reflect critically on the curriculum, and identify strands of thought which have influenced it.

In the ensuing paragraphs a brief discussion is devoted to each of these key philosophies.

2.3.1.1 Behaviourism

Behaviourism is a philosophical orientation based on the belief that "human behaviour is determined by forces in the environment that are beyond our control rather than by the exercise of free will" (McNergney & Herbert, 2007:143). Learning is thus focused more on observable stimuli and responses that follow behaviour (Chen, 2003). To behaviourists valid knowledge is constituted by what can be observed, and does not depend upon introspection (Boghossian, 2006). This notion

completely rejects discussions about the internal mental state since it depicts behaviour as an effect, that is, a response triggered by an external stimulus. It further reinforces the notion that behaviourism is an objectivist and monist perspective with regard to individual actions and decisions (Schuh & Barab, 2007). Its proponents argue that behaviour can be predicted and controlled. They do not entangle themselves with how knowledge is derived from experience. Their concern is more on how action is shaped by experience (Chen, 2003; Hodge, 2007).

Behaviourists postulate that knowledge is simply transmitted from a more knowledgeable person to others who are passive recipients expected to regurgitate what was offered them. From a curriculum implementation perspective this is a prescriptive approach. This is indicative that it is only when a curriculum being implemented explicitly attains the intended learning outcomes that it would be deemed engaging in the educational process (Boghossian, 2006). Working on the premise that our sensory experience is the ultimate foundation of our knowledge (Hodge, 2007), behaviourists would make sense of a new curriculum. Aligning the tenets of behaviourism to curriculum implementation depict behaviourism as a knowledge-transmission approach to teaching and learning. A curriculum influenced strongly by behaviourism will stress teaching methods that provide feedback on and reinforcement of performance, and learning tasks will involve behaviour that can be directly observed, measured and evaluated (McNergney & Herbert, 2007).

2.3.1.2 Pragmatism

Pragmatism is the philosophical approach that "defines the truth and the meaning of ideas according to their physical consequences and practical value" (McNergney & Herbert, 2007:145). Pragmatism is the view that knowledge derives from interaction among groups of individuals and the artefacts in their environment, which together create a reality (Schuh & Barab, 2007).

The most well-known and influential philosopher to apply pragmatism to educational problems was John Dewey (1859-1952). Dewey linked the goal of education to educate people for living effectively in a democracy. According to a pragmatist viewpoint, people are tools of change and

are able to experience and test their ideas and beliefs through experimentation. Thus, they are able to grasp the practical consequences of their actions. Furthermore, in a democracy people can apprehend what the effect of their actions and decisions will have on others in society. Applied to an educational setting, students of any age are able to participate in activities that require critical thinking and problem-solving. In considering the vocational dimension of education, Dewey identified *vocation* very broadly to include not only work required to earn a living but also any purposeful activity within all life roles such as parent, friend and citizen. According to Wonacott (2003), Dewey made three points which influenced the development of vocational education in the U.S.: firstly, only through an occupation does a person develop him/herself, as well as serve society; secondly, only an occupation provides the context for learning in which the process of growing is paramount, and not the finished product; thirdly, the optimal training for occupations is through occupations. In summary, Dewey advocated against a narrow vocational training and called instead for a broad vocational education which equipped individuals not only for paid employment but also for all the other occupations or roles in their lives. Thus, Dewey's interpretation of pragmatism required all students to receive some kind of vocational education, to be taught problem-solving, and to live and work as dynamic social beings (Rojewski, 2000).

Pragmatism flourished in the late 1800s to the 1950s and continues to exercise an influence on education in most education systems in some way or another (Feinberg, 2014). Many vocational curricula reflect Dewey's notion of pragmatism: contextualised teaching and learning, hands-on learning, integrated assessment, experimentation, and openness to alternative and innovative solutions. Rojewski (2000) regards pragmatism as the predominant philosophy in career-technical education as implemented in the U.S. today. Pragmatists believe that values are relative to the situation and time, and that we must be flexible and willing to change our values based on consequences. If the consequences are undesirable, a change of values is inevitable (Wang, 2011). According to the tenets of pragmatism, there is no single perspective, overarching rationale or higher authority that can resolve all the dilemmas for curriculum choices to be made. The practical context and its users are in the forefront of curriculum design and enactment (Van den Akker *et al.*, 2010).

2.3.1.3 Essentialism

Essentialism is a philosophical position "that acknowledges … the existence of a body of knowledge that all people must learn if they are to function effectively in society" (McNergney & Herbert, 2007:148). Although essentialists do not agree on what comprise the 'essentials' of what people should know, they agree that such essentials exist and should be represented in the curriculum. The essentialist movement was founded by William Bagley (1874-1946) as a reaction to the pragmatic trends in education in the late 1920s and early 1950s. Essentialists advocate a common core of knowledge that should be transmitted to all students; from this emanates the idea of a core curriculum or core subjects within the curriculum (which may still also offer electives) and the notion of common core standards. To solve problems effectively as advocated by the pragmatists exemplified by Dewey (cf. 2.3.1.1), students still need to study certain great works of knowledge and to master certain subjects; only then will they acquire the cognitive tools required for effective problem-solving. Typical of an essentialist approach is an emphasis on fundamentals (the 3 R's) over personal experience and subject matter that focuses on basic skills, knowledge and attitudes (Tozer, 2014). Furthermore, essentialists stress certain 'essential' attitudes that should be nurtured in the student, such as self-discipline, perseverance and a strong work ethic.

According to Rojewski (2000), essentialism influences the vocational and technical education curricula in the following ways: The main goal of vocational and technical education is to meet the needs of the labour market and the economy. The vocational and technical education curricula should be sequentially organised to encourage the systematic mastery of core content, and instructors (lecturers) should demonstrate a broad and intensive experience of business and industry. The system of vocational and technical education should be separate from that of academic education. A standard curriculum for vocational and technical education is advocated, and successful students should demonstrate minimum competencies in subjects.

2.3.1.4 Constructivitism

Constructivism can be regarded as both a philosophical stance and a theory or a set of theories about how people learn. Doolittle and Camp (1999) point out that constructivism is not a unitary theoretical position; rather it is better described as a continuum which allows for multiple types of constructivism. Fundamentally, in constructivism, learning is viewed as a process of knowledge construction, with concept-development and comprehensive understanding as the goals (Chen, 2003). Constructivism combines cognition from a developmental perspective with other important issues, such as motivation, self-directed learning, and a focus on the social context. The historical roots of constructivism, Fosnot (2005) asserts, reside in Piaget's understanding of knowledge-formation and his concept of equilibration. Fosnot and Perry (1996:29) explains that Piaget theorised that "progressive experiences sometimes foster contradictions to our present understandings, making them insufficient, and thus perturbing and dis-equilibrating the structure, causing us to accommodate". Implying that to reach equilibration or to make sense, the mind engages in a conflict in an attempt to assimilate and accommodate new information, precipitating the individual to come to understand, or rather, to construct knowledge. The crisis that ensues in the mind in the process of locating what the mind associates the new thing with denotes that either new knowledge impinges on what is already known, or reinforces it.

According to the constructivists, such as Fosnot and Perry (1996), Chen (2003) and Lattuca (2006), individuals construct meaning based on their prior knowledge and experiences. Keiny (1994:157) concurs that constructivism's interest is "on the mode of arriving at the knowledge". Accordingly, it offers an epistemological framework for the learning process, that is, to understand the nature of knowledge, in particular how human beings learn and come to know specific/scientific phenomena (Fosnot & Perry, 1996). Lattuca (2006) argues that constructivists begin with the assumption that students, no matter how inexperienced, have knowledge and beliefs that form the basis for their understanding of the world. Sense-making is a process of cognition which requires the individual to actively participate in the construction of their personal knowledge; what Lattuca (2006) sees as the knower being incorporated into the process of producing knowledge. For Lui and Chen

(2010:63), one has to be involved in "constructing, creating, inventing and developing one's own knowledge and meaning".

The implication is that cognitive constructivism is "fundamentally oriented to an autonomous subject when she confronts the physical and the social world (Lourenço, 2012:284); indicative of the power of the individual's mind as the unit of analysis for learning". For Lourenço (2012) the Piagetian subject is, ultimately, the main constructor of, or responsible for all his or her actions, operations, and social interaction.

Social constructivism, Quay (2003:106) argues, "Broadens the basic individualistic constructivist understanding of learning." Pioneered by Lev Vygotsky, social constructivism posits that other things around the student could influence his/her learning in his/her learning environment (Quay, 2003; Whitman, 2009; Liu & Chen, 2010:63). For Quay (2003) the capabilities of an individual are influenced by the actions and understandings of the collectives. This draws on the aspect of collective sense-making as a characteristic of a cognitive framework, as espoused by Spillane, Reiser and Reimer (2002). From this perspective, it is deduced that a lecturer in a vocational and technical education setting constructs meaning from the reality of the interaction with other lecturers within the same context. A lecturer would thus not passively interpret a curriculum in a vacuum or from the teacher development programmes without interrogating the text (Whitman, 2009; Liu & Chen, 2010; Lourenço, 2012). Vocational and technical education students should also construct meaning attributed to new knowledge from their setting and optimise prior knowledge in the process. Thus, learning is situated in and inseparable from its environment (Quay, 2003; Whitman, 2009). Also, embedded in constructing knowledge by sense-making either collectively or individually is the element of language. As a social phenomenon, language has a propensity to either enhance or constrain learning.

To elucidate further on social constructivism, Lourenço (2012) maintains that, unlike Piaget whose subject confronts the physical and social world as an autonomous individual, Vygotsky's subject is a heteronomous individual whose development depends heavily on the existing diverse social

structure with which s/he is confronted. For Lourenço (2012), the Vygotskian subject's activity is always influenced by interaction with the external – the physical or social world.

For both Piaget and Vygotsky, the individual and his/her physical and social context are interdependent and relational realities (Lourenço, 2012). In curriculum implementation, a Piagetian and/or a Vygotskian lecturer makes sense of a curriculum through interactions with social counterparts. From a social constructivist perspective, the individual notices and frames an innovation from interaction with his/her context (Spillane *et al*, 2012). As a heteronomous individual the lecturer interprets a new curriculum from the point of the existing diverse social structure (Lourenço, 2012).

In summary, a broad constructivist approach to curriculum development for vocational and technical education embodies the following key ideas (Doolittle & Camp, 1999):

- learning should take place in genuine and real-world contexts;
- learning should involve social interaction and mediation through the use of language;
- learning should be focused on content and skills that are relevant to the student;
- content and skills should be understood within the context of the student's prior knowledge;
- formative assessment should be carried out to create the platform for new learning experiences;
- students should become self-regulated and self-aware learners;
- teaching should comprise a facilitation process, not an instruction process, and instructors (lecturers) should teach from a multi-perspectival basis in which multiple solutions to problems are encouraged and accepted.

2.3.1.5 Social reconstructivism

Social reconstructivism is a philosophy "based on the belief that people are responsible for social conditions and can improve the quality of human life by changing the social order" (McNergney

& Herbert, 2007:150). The early reconstructivists had their roots in pragmatism but extended their philosophical boundaries to advocate systemic social change. In the educational arena social reconstructivists argue that all educators must exhibit professional leadership to affect transformation in education and the development of a new social order. Schools should thus press for social change and take the lead in addressing social problems that arise from poverty, the lack of opportunity, and the lack of employment, to name a few. The goal of education is thus to create a better world through proactive action, inquiry and critical and divergent thinking and the curriculum should address social problems, global issues and environmental problems (Riley, 2014). Rojewski (2000) indicates that a social reconstructivist approach to the vocational and technical education curriculum stresses the transformation of the workplace into a democratic learning organisation. Existing workplace practices which are unjust or unequal, such as discrimination in hiring, gender segregation in certain occupations, poor working conditions and the lack of opportunities for advancement among minorities, should be confronted and addressed in and through the curriculum.

2.4 THE PROCESS OF CURRICULUM DEVELOPMENT WITH REFERENCE TO VOCATIONAL AND TECHNICAL EDUCATION

The concept of *curriculum development* is not easy to define in a single description (Carl, 2009). Rogers and Taylor (1998) provide a broad definition of curriculum development. *Curriculum development* comprises all the activities whereby an education system plans and guides teaching and learning. This teaching and learning can take place in groups or with individual students, inside or outside a classroom, in an institutional setting like a school, college, university or a training centre, or in a community organisation.

As is the case with the variety of definitions of curriculum development, so there are a variety of curriculum development models (Taylor, 2008). In this study, Finch and Crunkilton's (1999) model has been primarily used due to the application by the authors to curriculum development in VET. According to this model, the process of curriculum development in VET is characterised by three main phases: Phase one - Planning the curriculum; Phase two - Establishing curriculum

content; and Phase three - Implementing the curriculum. Each phase comprises a number of key tasks. Phase one: Planning the curriculum ((also known as the design phase) includes making decisions about the curriculum and collecting and assessing both institutional and community-related data. Phase two: Establishing curriculum content includes setting curriculum goals and objectives, determining content and making decisions about content. Phase three: Implementing the curriculum includes dissemination of the curriculum, identifying and selecting materials, the development of materials, the development of the school/college to work transition, and assessing or reviewing the curriculum (Finch & Crunkilton, 1999).

2.4.1 Phase one: Planning the curriculum

Carl (2009:64) defines the *planning phase* as one during which key decisions are taken which must be based on accountable criteria. Irrespective of whether the curriculum is being revised or a new one being developed, the curriculum ought to be planned to meet the needs of all the critical stakeholders (Finch & Crunkilton, 1999). In particular, a VET curriculum must take into account national human resource needs the requirements of business and industry, as well as the needs of teachers, students, parents, and the society as a whole. Furthermore, for a curriculum to be fully accepted as representative of the ideal for nation-building, it has to be planned in such a way that it entrenches the values and interests of the different stakeholders that constitute the nation (McGrath, 2007). It is within the planning phase of a curriculum that the methods of curriculum development, a team approach and responsible decision-making are paramount (Carl, 2009).

Curriculum planning includes long-range planning and strategic planning. Long-range planning is premised on the principle of all things staying on the same basis; while strategic planning is aimed at scanning both the internal and external environments. Strategic planning is an intense process that is characterised by a series of steps, looking into the strengths, weaknesses, opportunities and threats (SWOT analysis) to the formulation of vision and mission statements, developing specific plans, applying the strategies included in the plans, monitoring and evaluation (Finch & Crunkilton, 1999).

2.4.1.1 Decision-making in planning the curriculum

Most curricula are organized around at least two levels of aims: very general or broad goals, and much more specific learning activities and objectives. Making decisions on what knowledge competencies and skills to include in any curriculum is time-consuming (Finch & Crunkilton, 1999). Decision-making in curriculum-planning involves two major areas: policy decisions and operational decisions. Policy decisions deal with goals, objectives and some basic structures for achieving these goals and objectives. A national curriculum for VET must first of all align with the overall government policy, and also with the subsets of the government policy, such as the economic policy. Public policies govern virtually all aspects of education in all education systems, including the curriculum, whereby determining what teaching and learning is provided, how, to whom, in what form, by whom, and with what resources (Levin, 2008). Operational decisions involve the day-to-day activities of the curriculum and serve towards the smooth running of the curriculum, and also deal with the management of the approved curriculum. The decision-making process consists of several stages, each of which builds on the next. They include, according to Finch and Crunkilton (1999), stage one: defining the problem or opportunity and clarifying alternatives; stage two: establishing standards for each alternative; step 3: gathering institutional-related data that align with the standards; stage 4: analysing the data; stage 5: deciding which alternative is supported by the data.

2.4.1.2 Collecting institutional and community-based data

When VET curricula are being planned it is important to understand the provisioning system (school, college, training centres or workplace as site, among others) and related data, such as student enrolments, staff capacity, infrastructure, existing programmes, and articulation in the education system and trends.

Data-gathering should include inputs from the community (i.e., the lecturers, students, parents, businesses, industries, and the public) which are crucial as an attempt to promote the acceptance of any new programme or the reform of an existing programme. In many cases the lack of

community data and inputs has led to a misunderstanding about VET, which leads to its low status in general (Billett, 2004). The community and its relationship to planning quality vocational programmes need to be forged through partnership during assessment and evaluation of what already exists. Inputs from community groups help to create a curriculum that will not only serve the students, but also the community in general (Finch & Crunkilton, 1999). Seeking community data, particularly of the industries and the businesses, assists in making decisions about the demand for the curriculum and the sub-sets of the curriculum (Billett, 2000). Furthermore, collecting data and seeking ideas and suggestions from the students and the lecturers of VET is essential (Powell, 2014). The students and the lecturers are well-positioned to appraise existing practices and to indicate what works and what does not work. Further, the process of following-up on former students to track their employment data is an important step to solicit sound and realistic data on the effectiveness of the VET programme offerings and also, to encourage VET graduates to contribute in the review of the programmes. An analysis of the placement records of graduates in business and industry should be carried out to gather job-performance data (Rosenbaum, 2001). From this process distinct trends that have a strong implication on the future enrolments of students and the assessment of facilities will emerge which will facilitate the planning of the new curriculum (Finch & Crunkilton, 1999).

2.4.2 Phase two: Establishing the curriculum content

Carl (2009) indicates that content is a core aspect of the curriculum; it determines the nature and extent of the curriculum, and the content is used to achieve the goals and aims of the curriculum.

2.4.2.1 Setting the goals and objectives of the curriculum

The goals and objectives of a curriculum have to be established first before the content is identified to prepare the students for employability. The process of establishing meaningful curriculum goals and objectives is protracted and time-consuming. Broad VET goals are of prime importance to prepare students for entry into the national economy as well as for advancement in their chosen career. The goals of the curriculum are at best broad and therefore unmeasurable; they serve as

foundations to further curriculum-building, because through the goals the purpose of the curriculum is provided. Some curricular goals are national, state/provincial or community-based (Finch & Crunkilton, 1999). McNergey and Herbert (2007) also point out that the assessment or review of any curriculum is based on how well the goals have been met.

Finch and Crunkilton (1999) argue that the objectives should flow from and be congruent with the goals. Objectives include general objectives, specific objectives, terminal objectives, enabling objectives, and performance objectives. Some curricular outcomes are measurable or unmeasurable. Objectives on the other hand, are measurable outcomes in a curriculum. Measurable outcomes are easy to assess and yield data that is quantifiable. In developing curriculum objectives a detailed and systematic effort needs to be made to communicate exactly what is expected of the student. To this regard, a VET programme must have a considerable number of objectives that are measurable in order to assure and to determine the competency level of the students. Sequencing the order of objectives allows for a coherent flow of the content and needs to be decided upon in establishing and arranging curricular goals and objectives. This will help the objectives best to meet the students' needs (Finch & Crunkilton, 1999).

2.4.2.2 Determining the content of the curriculum

As with planning the curriculum, determining the curriculum content entails a protracted process of deciding which content to include or exclude. Determining curriculum content presupposes the outcome or throughput of a curriculum. What is put in as content not only determines the teaching and learning strategies, it also informs the monitoring and evaluation processes of the curriculum (Carl, 2009).

In vocational and technical education, determining the curriculum content becomes pivotal, given the important purpose the curriculum has to serve in the broader context (Finch & Crunkilton, 1999). Finch and Crunkilton (1999) argue that factors such as time and the funds available, internal and external pressures, national, state/province and local requirements, skills needed by employers, business and industry concerns, and the particular level of content to be provided need to be

considered before deciding on curriculum content. The hurried making of content decisions could have adverse consequences that could potentially lead to a protracted period of time required to remediate weaknesses and misjudgements and this in turn creates a burden on the budget for curriculum development. Finch and Crunkilton (1999) assert that irrespective of whether a curriculum is being developed or reviewed, the authentic context within which it is to be implemented has to take into consideration its relevancy and cost effectiveness. This, accordingly, determines the scope and range of the curriculum.

The ensuing discussion deals with the above factors as postulated by Finch and Crunkilton (1999).

Time and money are inseparable when considering the development, implementation, monitoring, evaluation and review of the curriculum. For example, the time assigned to develop the curriculum would determine the strategies to be used in deciding on the curriculum content. This implies that a prescribed time within which the content is to be established should be decided on early in order to facilitate progress. Likewise, the money allocated for procurement (i.e., traveling expenses and printing, and the short-term contracts of personnel, including researchers, experts and consultants) has a huge impact on determining the scope of curriculum development, in particular. This could be influenced by the fact that some strategies may require additional funds over and above what was allocated for the establishment of content, while others may not require any additional funds (Finch & Crunkilton, 1999:130).

Internal and external pressure could constrain or enhance the determination of the content. In deciding on the content to be included or excluded in a curriculum, there are various issues that could impinge on the process. Self-interest and the best interest of others are two of the critical elements that individuals and groups within or outside the educational environment could use to either accelerate or decelerate the process. Individuals or groups could agitate for the inclusion of specific content. A lack of consensus could impact negatively on decision-making in respect of the content and even influence strategies in the collection of the data (Finch & Crunkilton, 1999:130-131).

Government requirements as a factor, nationally, provincially and locally, could either contribute or inhibit the facilitation of the determination of the curriculum content. National governments at times dictate specific content, and also when, where, how, and how long it is to be offered, and to whom, and when it is to be assessed. Such stipulations have the potential to inhibit teacher creativity and innovativeness. In such contexts, so as to meet the intended curriculum goals, the lecturers of vocational and technical education are prescribed to teach the specified content without adapting it to the needs and experiences of the students (Finch & Crunkilton, 1999:131-132).

The skill needs of the employers are crucial factors influencing the VET curriculum. All education is an attempt to prepare individuals for employability. The curriculum content is in most cases aligned closely with the skills needs of the employers. However, this is even more important in VET institutions which have to provide the students with content that will address the identified needs of the industry. Therefore, curriculum developers should not lose sight of the skills needs of both the students and that of industry when making decisions on content selection for VET curriculum. In aligning the VET curriculum content to industry needs, it is incumbent upon the curriculum developers to consider current and future workplace basics and skills needs (Finch & Crunkilton, 1999:132).

These factors need to be considered in conjunction with the consideration of the educational and the occupational setting. Finch & Crunkilton (1999:137) also mention seven content determination strategies that determine curriculum content, namely, the philosophical basis, an introspection approach, the Developing A CurriculUM (DACUM) approach (see explanation in ensuing quotation below), task analysis, the "all aspects" of the industry-approach, the critical incident technique, and the Delphi technique. Finch and Crunkilton (1999:137) elaborate on these former terms as follows:

> *The philosophical basis is an approach whereby "a specific philosophy or set of philosophies serves as a foundation for content decisions … is most typically used to develop curriculum content in academic areas. The introspection approach is a strategy whereby "an individual or a group*

examine personal experiences and knowledges to incorporate these into a framework for the vocational curriculum content", and the DACUM approach is an approach whereby occupational experts are used to derive relevant content with its focus on development of a single-sheet skill profile that serves both as curriculum plan and an evaluation instrument. The task analysis strategy focuses on the identification and verification of tasks performed by workers in a certain occupation or cluster of occupations.

Some of these strategies are objective and costly, for example, the task-analysis strategy, while the others are subjective and inexpensive (e.g., the introspection-approach). Finch and Crunkilton (1999) encourage the use of several strategies for validity since each strategy has unique strengths and weaknesses. They recommend the "all aspects" approach to determine meaningful curriculum content for the VET because it aids in creating a curriculum with broadly-based, thematic content that expose the students to a wide range of industry- and field-wide experiences (Finch & Crunkilton, 1999).

2.4.2.3 Making decisions in respect of the content

The scope of the curriculum influences decision-making in respect of the curriculum content. Finch and Crunkilton (1999:166) argue that, "sound content decisions serve to bridge the gap between the identification of potential content and the development of objectives." They postulate this formula:

Potential Curriculum Content – Constraints = Usable Curriculum Content

The explanation of the above formula is as follows: Potential curriculum content consists of that which has been determined potentially relevant to students through one or more of the strategies (cf. par. 2.4.2.1) above. Constraints are those factors that may place serious limitations on the teaching of certain content. Usable content is that which best contributes to the students' benefit and, given existing constraints, can be taught. This formula is designed to enable content decision-

making to the point where it is most meaningful and manageable for use in designing instruction (Finch & Crunkilton, 1999:166).

Constraints related to curriculum content are "limitations present in the teaching-learning process" (Finch & Crunkilton, 1999:166). The four relevant areas that exist as constraints in this process are, namely the student, the instructors [lecturers] and the support staff, the curricular arrangement, and the employment setting.

These factors have the potential to limit the curriculum content, and are discussed in the ensuing section.

a) The student: The VET student shapes the curriculum content. The admission requirement level to enrol at a TVET should be considered and related questions should be asked: What are the students' general and applied skills? Are they interested and motivated? What are their maturity levels? These factors impact on the amount and type of content to be included or not.

b) The instructional and support staff: The instructors and support staff also have the potential to limit the determination of the content. Questions such as, what content are the VET lecturers qualified to teach? Are a sufficient number of lecturers available to provide the needed course-work in core content areas (e.g., mathematics, science, English)? Are sufficient numbers of lecturers available to teach vocational specialisations (e.g., engineering, tourism, and marketing)? Are qualified personnel available to provide adequate support services, such as guidance, placement and counselling?

c) Curricular arrangement: This represents the broadest range of concern in decisions on curriculum content. Specific questions need to be answered when making curriculum decisions to identify constraints. The following are a number of questions that may be asked, namely what time is or can be made available to teach the students? What content coverage is required for the certification or licensure of the graduates? What money is available for equipment, resources, and supplies in support of certain content? Answers

to these questions may help avoid or address the potential threats to the quality of the curriculum content.

d) Employment-setting: The employment-setting that VET graduates enter are crucial in identifying constraints in content decision-making. This raises questions such as, what minimum employability level is expected of the graduates. What occupational areas will the graduates be prepared for? Which experiences may be best obtained in the work settings? Answers to these questions will facilitate the making of decisions in respect of curriculum content and alleviate constraints that limit the content that could be decided on.

2.4.3 Phase three: The implementation of the curriculum

The implementation of a curriculum is not simply an extension of the planning and adaptation process; it is a phenomenon in its own right (Fullan & Pomfret, 1977). The implementation, particularly of a new curriculum, could presuppose various possibilities; it could be that the curriculum being implemented is either obsolete or unsuccessful; that perhaps the outcomes of the intended curriculum have not been realised; or that there is a gap between the intended curriculum and the implemented one (Paudel, 2009; Bantwini, 2010). The *intended curriculum* is defined as the one prescribed by the policymakers, the *implemented* curriculum is the one put into effect in the classroom, and the *attained* curriculum as the one pertaining to what is being learnt by the students (Schofield, 2001; Handal & Herrington, 2003; Paudel, 2009; Bantwini, 2010). There may possibly be a mismatch between the intended, the implemented and the attained curricula. Consequently, a mismatch in itself could lead to a change in the curriculum, and thus to the development and implementation of a new one.

2.4.3.1 Dissemination of the curriculum

The effective implementation of the curriculum depends predominantly on its effective dissemination (Carl, 2009). The dissemination phase follows after the planning/design phase has been completed and finalised. The phase comprises the preparation of curriculum utilisers through

the distribution or promulgation of information, thought and concepts in order to make them aware of the envisaged curriculum (Carl, 2009:112). This phase is important for the meaningful and successful implementation of the curriculum. The implementation of a new curriculum or a revised one fails, or is even resisted as a result of its defective and injudicious dissemination. Carl (2009:112) argues that, "Effective dissemination is a requirement not only for the effective implementation of a curriculum but also for the institutionalisation thereof."

The implementers of a curriculum need to be thoroughly prepared for its successful implementation. Carl (2009) puts forward that the implementers bring with different attitudes and depending on how the new curriculum is introduced to them, they can either accept or reject it. Carl (2009:112) further states that, "The manner in which information is disseminated often determines how acceptable the curriculum will eventually be". He indicates that the disseminated information may be received in various divergent manners, and that the designers have to take this aspect into consideration in deciding on which strategy to use to disseminate curriculum information (Carl, 2009). Therefore, the level of preparedness of those who will be involved in the implementation process is a factor that needs serious attention.

According to Carl (2009:114), "Change is an inherent part of dissemination". He argues that change in the curriculum is precipitated by various aspects in an attempt to address specific group needs. The needs could be national, regional, provincial, and/or community needs. This makes the dissemination phase a crucial phase in conveying information with regard to curriculum change. The phase opens up opportunities to solicit inputs from the stakeholders; inputs that further sensitise them to the change, in turn encouraging acceptance and support of the curriculum (Carl, 2009). Involving all the stakeholders effectively creates opportunities for the successful implementation. The prime function of dissemination is the preparation of all those who will be involved in curriculum change.

Carl (2009) argues that curriculum change is resisted due to various factors. He lists a few of these factors, such as fear of the unknown and the new, the security associated with the existing curriculum, a lack of self-knowledge as regards one's own abilities, a lack of motivation, fear of

criticism, insufficient support by education leaders, indistinct and faulty dissemination of the curriculum and ambiguity about and a lack of understanding of the nature and extent of the envisaged change (Carl, 2009:116).

These factors attest that the lecturers as the implementers of the curriculum in this context are not the cause of resistance to curriculum change. Such an argument indicates that it is imperative that the means and strategies that are to be used to disseminate a new curriculum be devised to turn around, what Carl (2009) terms 'limiting powers/inhibiting factors' into 'facilitating powers/factors'. For Carl (2009:118), facilitating factors are pleasurable and positive, and he attests that, "Curriculum dissemination is part of systematic administration with meeting, plans of action, timetables, distribution of information circulars and organised in-service training programmes, and thus is a structured and planned process". These factors include a renewal climate, that is, a positive climate necessary to stimulate enthusiasm and dedication for the implementation of the new curriculum. Accordingly, "within this climate there must be a conscious attempt to cultivate a high group morale, as this will determine the quality of involvement and co-operation" (Carl, 2009:115). Inherent in a renewal climate is thorough planning, good communication, a high level of curriculum expertise in facilitators and consumers, the involvement of all the interested parties and effective leadership (Carl, 2009).

Carl (2009) perceives the inhibiting factors, on the other hand, as those factors that render the dissemination phase as an unplanned and unstructured or a 'spur-of-the-moment' process. Carl (2009:119) points to the three inhibiting factors as the education system, the organisational and social structures, and the human factors. In the educational system the factors are, namely a lack of financial support, political pressure from the authorities, vulnerability in terms of community needs, excessive centralisation in respect of educational control, traditions, and poor salaries. The organisational and social structures are characterised by a lack of long-term planning and objectives, excessive accentuation of bureaucracy, weakly-developed channels of communication, and an absence of co-ordinated action on the part of the participating organisations and of a dissemination liaison person from the top of the structure. Carl (2009:119-120) lists numerous human factors that have a limiting and inhibiting effect on curriculum change. They are, namely,

poor leadership, incapability, poor training and defective skills, a lack of time, personal and psychological qualities, administrative duties, individual and mutual differences in preparedness, a variety of educational philosophies, defective understanding by the users of the curriculum, negative attitudes and emotions, passivity, defective self-confidence, periods of confusion and an absence of encouragement and motivation. The above are as a result of the chance dissemination, and decrease the possibility of the successful implementation of the curriculum because it is unplanned and unstructured (Carl, 2009:117).

The dissemination of curriculum change is a concerted and a conscious exercise that has to be planned with rigour. The intention is to prepare the lecturers for the change in curriculum, irrespective of the depth and extent of the change. The strategies used need not alienate the lecturers from effecting the change effectively and efficiently. Carl (2009) cites two strategies of curriculum dissemination, namely power strategies and/or influencing strategies. A *power strategy* is a macro-level strategy that renders the lecturers passive with little or no say in the decision-making process (Carl, 2009). An *influencing strategy* attempts to coax the lecturers. Though manipulative in nature, an influencing strategy affirms the value of lecturers and thus makes them amenable to curriculum change.

In conclusion, curriculum dissemination is the bedrock of successful curriculum implementation. The dissemination phase is a planned and structured phase in a concerted effort to distribute information to prepare the lecturers for the implementation of the curriculum.

2.4.3.2 Engaging the lecturers as curriculum implementers

According to Spillane *et al*., (2002), the implementation of the curriculum has to include preparing and engaging the lecturers (or teachers) as agents of the curriculum implementation process. For Spillane *et al*. (2002:387), "a key dimension of the implementation process is whether, and in what ways, implementing agents come to understand their practice, potentially changing their beliefs and attitudes in the process". Accordingly, curriculum implementers (i.e., VET instructors or lecturers) have "first to notice, then frame, interpret, and construct meaning" (Spillane *et al.*,

2002:392). Spillane *et al*. (2002) stress the supremacy of implementing agents in the implementation process. It implies that the implementing agents, whether national or school-based, should share a common sense of what the national curriculum requires. This, in turn, suggests the need for consultation and co-operation between the implementing agents.

Similarly, Handal and Herrington (2003:59) argue that teacher beliefs, not only "represent implicit assumptions about curriculum" they also "act as cognitive and affective filters through which new knowledge and experience is interpreted". Louis, Febey and Schroeder (2005) posit that the stage, or rather the extent to which teachers engage or resist policy text depends on how the new policy was signalled and presented to them. When consulted, teachers engage with the policy in a significant way. To reinforce this, Louis *et al*. (2005) state that when teachers are confronted with the implementation of a curriculum, how they interpret it will be determined by whether they engage with the change significantly, incrementally change or resist it outright. The implication is that, should the values that underpin the curriculum differ from the implementing agents' beliefs, values and culture there could be a propensity to influence the degree of the success of the implementation.

Teachers use the cognitive processes to understand new information to determine whether it is consistent or inconsistent with their prior knowledge (Spillane *et al.*, 2002; Louis *et al*., 2005). Any discrepancy with the usual way of doing things needs to be communicated and not imposed on the teachers to ease change, and thus prevent dissonance. While considering the influence of prior knowledge on change, the role of context and culture as conditions mediating change should not be precluded (Paudel, 2009).

Sense-making as a characteristic of a cognitive perspective could be made as a collective. The lecturers work as a group and at times influence one another in decision-making. Louis *et al*. (2005:179) assert that groups are the most effective unit of change if the goal is to alter the educational system. Like Spillane *et al*. (2002), they define *collective sense-making* as "the process by which individuals and groups evolve shared understandings of their setting" (Louis *et al*., 2005:179). They further perceive sense-making not as an event but as a "process by which

teachers' and administrators' interpretation of external demands culminate in formal or informal decisions about how they collectively respond to externally initiated policies" (Louis *et al*., 2005:179).

Spillane *et al*. (2002) argue that a curriculum is first noticed, framed, and interpreted to construct meaning through a longitudinal process of consultation, review and trail.

Each of these activities is discussed as follows,

a) Noticing: There are various forms of *noticing* with regard to the curriculum implementation process. Louis *et al*. (2005) argue that sense-making occurs when people notice a situation that does not fit with their usual routines and use their experience to find patterns that help to explain new situations. In noticing, implementing agents, or 'street-level bureaucrats', as Lipsky (2010) calls them, start to associate some aspects in the new curriculum with their existing knowledge of the curriculum. This is undeniable, particularly for teachers who are already teaching and have experience and perhaps, expertise or specialities. Teachers, Louis *et al.* (2005) argue, make sense of a situation as they react and reflect on it as individuals.

b) Framing: Spillane *et al*. (2002:399) put forward that "teachers and other implementing agents tend to assimilate the new knowledge about instruction into their existing frameworks for understanding", while most, when faced with change in the curriculum, tend to notice and attend to familiar ideas and ignore the unfamiliar ones largely because they lack "a mental framework to connect and explain the unfamiliar ideas". This poses a problem in adjusting or adapting to the new curriculum. Their frame of reference becomes a barrier to assimilating the new curriculum. Louis *et al*. (2005) point out that when teachers feel that their legitimacy is threatened or their professional judgment is undermined, they oscillate towards collective sense-making. This will then inform their frame of reference. It is the teachers' response (noticing) to the new curriculum which forms their frame of reference. This could be one of acceptance, rejection or compromise (Spillane *et al.*, 2002).

c) Interpreting: There are various ways implementing agents interpret a new curriculum – the teachers' cognitive limitations, the school context, the teachers' beliefs or power relations. Cognitive limitations have the potential to bring about resistance to change, particularly where there is a difference in the interpretations of policy. The context around which the curriculum is to be implemented also has a bearing on how the teachers interpret the curriculum. Depending on where the educational institution is located, namely urban, rural or semi-rural, could influence the teachers' perception, and thus their interpretation of the curriculum. Likewise, the perceived power of the policymakers could affect how the teachers/lecturers interpret the curriculum. In addition, when it comes to how the teachers interpret the implementation of a new curriculum, one has to note the question of power relations. Louis *et al.* (2005:180) argue that there are more privileged voices that are listened to and attended to in terms of determining the groups' interpretation of policies. If the voices of the teachers are ignored in an attempt to develop constructive responses to external demands, they engage in collective interpretations of the policy to counter their lack of power. This facilitates a change of the cognitive maps and behaviours since cognitive engagement with policy creates learning opportunities. The result is sense-making, largely due to heightened group interaction. As a consequence, a redefinition of values and attitudes is brought about. Louis *et al*. (2005:180) posit that, "organizational learning is a critical component of sense-making because it prevents teachers' current beliefs and experiences from interfering with their ability to implement and interpret policies in the manner policymakers intended".

2.4.3.3 Identifying, selecting and developing curriculum material

The identification, selection and development of curriculum material are also crucial aspects in decision-making in respect of the content and impacts on the effectiveness of a teaching-learning environment. Some type of logical procedure for identifying and selecting the curriculum material has to be developed. Defining what curriculum materials are to address the goals and objectives of the curriculum is a priority in an attempt to bring about a change of behaviour in the students.

Various types of curriculum material exist, namely printed, audio-visual, and/or manipulative aids (Finch & Crunkilton, 1999).

An overall general description of the materials to be selected should be considered, including bias, readability, content, presentation, learning, support and cost-effectiveness before a decision is made in respect of the selection of the curriculum material. This is a crucial exercise that will ensure that the material selected caters for the characteristics of all types of VET students. With technological advancement, there are many sources of curriculum materials, namely commercial publications, journals and magazines, curriculum centres, and private companies (Finch & Crunkilton, 1999). Finally, instructors (lecturers) should also as far as possible be involved in the identification and selection of the teaching materials to affect its successful implementation.

2.4.3.4 Assessing, evaluating or reviewing the curriculum

Comprehensive assessment of the curriculum is achieved when the focus is placed on the curriculum context, the input, the process, and the student. *Context* assessment defines and describes the environment in which a curriculum will be offered, identifies the needs that have been used as criteria, and pinpoints any constraints that hinders meeting the identified needs. *Inputs* assessment focuses on resources and strategy decision-making. The choice of the best resources and the provision that the resources are used effectively and efficiently is of prime importance in the assessment of the curriculum. *Process* assessment is closely aligned with instruction and deals directly with the operation of the curriculum. It is critical in examining the immediate effects of instruction, not only on the students' success, but it is also meaningful to the extent that inferences are drawn to its success in the world-of-work and beyond. The focus of the effectiveness of curriculum decisions must also consider former students in respect of their learning and future employment experiences in order to determine the quality of the curriculum because the graduates are the end-products of any curriculum (Finch & Crunkilton, 1999).

Setting the standards of curriculum assessment defines the quality of the curriculum and the assessment objectives. Hence a framework must be developed - an assessment plan - to serve,

gather and examine the assessment data. The plan should include the rationale for the assessment and a description of the curriculum and the assessment design used. The results of the assessment could be used to improve further curriculum development and the improvement of the materials (Finch & Crunkilton, 1999).

2.5 BARRIERS TO CURRICULUM IMPLEMENTATION

The barriers to the implementation of the curriculum are manifold - certain issues have already been touched on in the preceding sections. The barriers comprise poor policy clarity, inadequate consultation, the ill-preparation of the teachers for the implementation process (Bantwini, 2010; cf. 2.4.3.3), the hurried implementation to the routinization of the curriculum (Rogan & Aldous, 2005; Bantwini, 2010;), the teachers deliberately ignoring or sabotaging the policy text (Handal & Herrington, 2003; McLaughlin, 1987; Fullan & Pomfret, 1977; cf. 2.4.3.3), and ineffective models of curriculum development and implementation. Coupled with these issues are arguments indicating that reforms designed to improve the quality of education, including VET, are more rhetorical than substantive (Bantwini, 2010; Shawer, 2010; Rogan & Aldous, 2005; Morris & Scott, 2003; Fullan & Pomfret, 1977). Statements that there are usually gaps between the intended and the ultimately implemented curriculum abound in most of the literature reviewed (Bantwini, 2010; Paudel, 2009; Dyer, 1999; Carless, 1998; McLaughlin, 1987). To narrow the gap, some researchers argue that implementation strategies are to be designed and developed through direct meaningful consultation - not symbolic consultation - with the teachers, the schools and the communities in order to solicit inputs (Bantwini, 2010).

The teachers, ideally, are to be seen as being at the sharp end of curriculum development of most educational reforms. It is therefore imperative that they undergo appropriate orientation as an attempt to prepare them to implement a curriculum effectively (Bantwini, 2010; Carless, 1998) The implication is that curriculum reforms need to have a personal meaning for the teachers to have a sustained and deep impact on changing their practice (Bantwini, 2010; Robinson, 2002). The teachers, as the expected implementers of the curriculum, therefore need to be involved, from the outset of curriculum change, to the assessment and reviews of the curricula. It would be typical

of a defeatist stance not to consider the role the attitudes of the teachers play in the adoption, adaptation, re-invention or rejection of a new curriculum (Bantwini, 2010; Carless, 1998). The position of influence that the teachers occupy in the implementation process cannot be denied or ignored – the teachers are the key determinants of what ultimately gets and does not get implemented (Bantwini, 2010). The meaning the teachers assign to a new curriculum mirrors their beliefs, values, attitudes and experiences. The teachers refract curriculum change through the prism of beliefs, values, experiences and daily challenges.

The success or failure of the implementation of a new curriculum also depends on how the lecturers come to know about the curriculum. The curriculum implementation approach could be either top-down or bottom-up (cf. 2.2.1.1 & 2.2.1.2). With both approaches the educational authorities are, to a certain extent, in control of the formulation of the curriculum development and its implementation processes. The top-down curriculum implementation approach renders the teachers' views less influential and ineffective in shaping the curriculum reforms. In the top-down approach the teachers are recognised only as the major agents in the implementation of the curriculum. The educational authorities provide the resources, and the pre-service and in-service training to assist in the implementation of the curriculum (Paudel, 2009). Conversely, the bottom-up approach incorporates the views of the teachers from the initiation to the implementation of the curriculum. However, the two approaches are complementary, and not exclusively independent. The complementarity of these approaches needs to be taken into account from the initial stages of the development of the curriculum. Paudel (2009) argues that the basic arguments of these approaches concern the development and implementation methodologies and accountability.

In conclusion, the successful implementation of the curriculum in education in general and in VET in particular is a complex process that requires that all phases be planned and structured from the outset. Communication with and the involvement of all the stakeholders is crucial at every phase of curriculum development.

2.6 CONCLUSION

The development of a curriculum for vocation and technical education is a complex task.

In this chapter the researcher examined the notion of the curriculum in general (cf. par. 2.2) and the different types of curriculum with their implications for implementation (cf. par. 2.2.1). Thereafter, attention was given to conceptualising the curriculum for VET, and the role played by dominant philosophies in the shaping of the VET curriculum. Finch and Crunkilton's (1999) three-phase model of curriculum development in vocational and technical education was discussed, also in the light of other relevant literature on curriculum development. In particular the role of the lecturer in the dissemination and implementation of the curriculum was highlighted. The chapter concluded with a short discussion of the barriers to the successful implementation of the curriculum in general which are also relevant to the implementation of VET curricula, particularly during times of reform and transformation.

Chapter 3 provides an overview of the provisioning of technical and vocational education and training (TVET) South Africa, including curriculum development.

CHAPTER 3
OVERVIEW OF THE PROVISION OF TECHNICAL VOCATIONAL EDUCATION AND TRAINING IN SOUTH AFRICA

3.1 INTRODUCTION

This chapter aims to provide a brief overview of the current system of TVET (DHET, 2013a) in South Africa, previously known as the system of Further Education and Training (FET). The TVET colleges form part of the larger post-school provisioning system which falls under the purview of the Department of Higher Education and Training (DHET, 2013a). As a post-school system, the sector comprises all the education and training provision for those who have completed school, those who did not complete their schooling, and those who never attended school (DHET, 2013a). An outline is first given of the historical evolution of the sector pre- and post-1994; thereafter the aims of the TVET college sector are presented according to the most recent policy. This is followed by a description of the management, governance and funding of the TVET sector and its organisational structure. Curriculum change and implementation is discussed, specifically with reference to the introduction of the NC (V) since 2007. This is followed by a discussion of the partnership with industry and the provision of teacher/lecturer training for the TVET. The chapter concludes with a summary of key challenges to the TVET sector.

3.2 EVOLUTION OF THE TVET SECTOR

This section outlines the historical evolution of the TVET college sector pre- and post-1994. The pre-1994 period is outlined briefly as a background depiction of the context of the TVET college sector post-1994. The landscape of the FET sector in South Africa has experienced change in name and shape based on the politico-socio-economic context of the country. McGrath (2004:34) asserts that, "technical education evolved mainly in response to the growing needs of the railways, mining and industries for trained and skilled artisans". Wedekind (2008) concurs that the sector is bound to a history that spans more than 100 years of technical and vocational education institutions in

South Africa. As technical vocational education and training, this sector was found in both the white colonial and the apartheid education systems (Matea, 2014).

3.2.1 Technical vocational education and training pre-1994

The pre-1994 era technical education system, like the general education system was underpinned by the Christian National Education (CNE) ideology, an ideology that encouraged separate development, and therefore the provision of separate education (Msila, 2007). CNE legitimised differences whereby skilled work and artisan training were the reserves of the whites in terms of the job reservation acts of the early 1950s. According to McGrath (2004:137), "The South African technical college sector developed in the early twentieth century to provide theoretical learning alongside the practical training of the apprenticeship system". This shaped the history of the TVET context and the nature and extent of provisioning for different social classes and groups across the country (Badroodien, 2004). The precise aim of technical and vocational education and training was to provide both the theoretical learning and the practical training of the apprenticeship system governed by the Apprenticeship Act, 1922 (Act No. 26 of 1922) (Gamble, 2004; McGrath, 2004; Gerber, 2011). The apprenticeship system in artisan trades was traditionally the pathway to qualifications (Wedekind, 2008; DHET, 2013a).

The technical college sector grew rapidly after the Apprenticeship Act, 1922 (Act No. 26 of 1922) to provide theoretical training for those already engaged in practical, on-the-job learning in apprenticeships (Akoojee, Grewer, &McGrath, 2005). This Act was reinforced by other legislations intended to reserve jobs for whites only. Gerber (2011) argues that deliberate exclusionary educational requirements were stipulated that subtly made it impossible for black students to be apprentices – apprentices were expected to have attended a trade school and to have passed standard 6, the now Grade 8. Consequently, the majority of South Africa's population, both the pre-employed and the unemployed, were disadvantaged and denied access to an apprenticeship system that would have prepared them to be responsible citizens equipped with the skills, knowledge and understanding to contribute positively to the development of the economy and the country (Gerber, 2011).

However, a socio-economic twist occurred in the 1980s with the promulgation of the Manpower Act in 1981 (Gamble, 2004). The Act "facilitated racially inclusive access to skilling opportunities, artisanship" (Maharaswa, 2013). This turn of events led to the opening of new technical colleges to cater for blacks, albeit with provision still being racially segregated (Wedekind, 2008; Maharaswa, 2013). However, the apprenticeship system declined because the industry no longer sponsored the apprentices because the students were attending the colleges on a full-time basis rather than on block release (Gamble, 2004). This resulted in a shortage of mid-level skills in the engineering and construction fields (Wedekind, 2008).

In addition, pre-1994 education and training were split between two departments, the Department of Education and Training (DET) and the Department of Labour (DoL) (Allais, 2011; Field, Musset & Alvarez-Galvan, 2014). The DET was responsible for schools, adult education, colleges and universities, while the DoL was in charge of skills development (Allais, 2011).

Gerber (2011) asserts that the pre-1994 technical college sector was tightly aligned with the needs of the industry in a racially-defined manner that led to blacks being excluded from apprenticeships. It was not until the Manpower Training Act, (Act 56 of 1981) that blacks were able to access the principal programmes of the then technical college sector, and become apprentices. Therefore, the repeal of the Apprenticeship Act, 1922 (Act 26 of 1922) and the subsequent job reservation acts of the 1950s and the promulgation of the Manpower Act (Act 56 of 1981) came as beacons of hope for blacks (McGrath, 2010). As a consequence, the racial limitation inherent in the apprenticeship system became defunct in 1981. This precipitated the emergence of the urban technical colleges for blacks (Gamble, 2004; McGrath, 2004; Akoojee & McGrath, 2007). With the passage of the Manpower Act of 1981, the landscape of the technical vocational education and training sector changed drastically (Gerber, 2011). TVET began to be offered through technical colleges and/or schools in a three-pronged manner - the state-aided technical colleges for whites, the state technical training colleges, and the homeland manpower technical colleges for blacks to cater for the imperatives enshrined in the policies of separate development (McGrath, 2004; Gerber, 2011).
State-aided technical colleges, on the one hand, continued as before the Manpower Act (Act 56 of 1981) and trained white students only. The state technical colleges and homeland manpower

colleges, on the other hand, catered for only African (i.e., Black, Coloured and Indian) students (Matea, 2014). The technical courses offered by the latter colleges were mainly skills courses, such as bricklaying, carpentry/woodwork. Apparently black students were not accorded access into the apprenticeship system because of the lingering legacy of the racial bias of the Apprenticeship Act (Act 26 of 1922). Apprenticeship was extended to other racial groups (i.e., Coloureds and Indians). Gerber (2011) succinctly puts it that technical colleges still occupied the space whereby they were embedded in the apprenticeship system. Courses offered in these 'separate but equal' technical colleges differed according to the geographical locations of the colleges. Furthermore, the allocation of funds and resources to the technical colleges was skewed in favour of the state-aided technical colleges even after the promulgation of the Manpower Act (Act 56 of 1981).

From the above one could argue that the evolution of the technical colleges, given the volatility of the 1970s and the 1980s, was marked by constant strikes and industrial upheavals followed by new policies in an attempt to concede to eminent challenges. McGrath (2004) contends that the start of the 1990s saw not only the decline of the apprenticeship system but also an increase in the enrolment of blacks who were non-apprentices into technical colleges. Significantly, the positioning and the role of the technical and vocational education and training colleges were impacted by this inclusion even though provisioning was still racially segregated. Undeniably, the shape of technical education to include black students in their courses signalled opportunities for blacks to access skilled and semi-skilled work. However, a void was created which demanded to be filled in order to prepare a cohort of the pre-employed and the unemployed to be exposed to the world-of-work (Wedekind, 2008).

3.2.2 Technical and vocational education and training post-1994

Wedekind (2008) attests that, as they now stand, TVET colleges have emerged and evolved from the post-apartheid reforms to the education and training system. Post-1994 is marked by the broader transformations of the education and training sector to integrate the formerly fragmented departments of education. The transformation process in the PSET system began in earnest

towards the close of the apartheid era largely due to the role played by the Manpower Act of 1981 (Matea, 2014).

In this section, the evolution of the TVET is traced according to the three phases Powell (2013) followed to describe the evolution of the TVET college sector in his research as referred to and dealt with in depth in chapter one. Powell's third period is brought up to date with the White Paper on Post-school Education and Training (DHET, 2013a).

3.2.2.1 The period of reconstruction (1994-2003)

By 1994 technical colleges were still a mixture of the state-aided, state and manpower homeland technical colleges, the so-called historically-advantaged and disadvantaged colleges (McGrath, 2004; Akoojee & McGrath, 2007; Akoojee, 2008; Booyens, 2010). All these entities needed to be placed under a unified system of common management and governance (DHET, 2013a; Jooste-Mokgethi, 2013; Powell, 2013). The DoE began to reconceptualise broader educational policies of separate development and of restructuring the overall education system in 1995 (Jooste-Mokgethi, 2013). As a result, the government introduced a number of Acts and White Papers to ensure the development of the human resources in line with the economic demands of the country (Jooste-Mokgethi, 2013). This led to the promulgation of the South African Qualifications Authority (SAQA) Act (Act 58 of 1995) (RSA, 1995), which proposed the development and establishment of a National Qualifications Framework (NQF). The NQF was designed to integrate the provision of education and training through a common set of qualifications ranging from Level 1 to Level 10 as an attempt to address issues of equity, access, mobility and progression (SAQA, 2012).

The process of transforming the TVET colleges sector started as a response to the National Committee on Further Education's (NCFE) findings that highlighted the lack of the identity of the TVET colleges sector (ETDP-SETA, 2011). The NCFE is a ministerial committee that the DoE appointed in September 1996 to investigate the challenges hampering the responsiveness and articulation of the TVET systems to the socio-economic demands of the country (ETDP-SETA,

2011). The findings became the bedrock upon which the DoE and the DoL engaged in developing and producing legislatures that culminated in the promulgation of the following Acts: the Skills Development Act (Act 97 of 1998), the Further Education and Training Act (Act 98 of 1998), and the Skills Levies Act, 1999, and others (cf. table 1.1; Jooste-Mokgethi, 2013). These Acts were intended to change the shape and futures of the TVET system in South Africa (Unwin, 2003; McGrath, 2004; Booyens, 2010:4). Akoojee and McGrath (2007) argue that the FET Act (Act 98 of 1998) (RSA, 1998) is the key legislation that shaped the TVET landscape in South Africa, particularly in the TVET colleges sector. Akoojee and McGrath (2007) furthermore add that the Act heralded new expectations on the role of TVET institutions since it positioned them to be run on more business-like lines. Matea (2014) also concurs that the Act guided the transformation and development agenda of the TVET colleges for the period 1998 to the amendment of the Act in 2006.

Another transformative policy document was the New Institutional Landscape for Public FET Colleges document that was published in 2001 (DoE, 2001). The document recommended the merger of the former technical colleges and for the establishment of college councils to address the management and governance of the colleges (DoE, 2001). Subsequently, 152 former technical colleges comprising the state, state-aided technical colleges and the ex-manpower homeland institutions/colleges were merged to form 50 multi-site public TVET colleges (DoE, 2001). McGrath (2004:138) asserts that the merger of the technical colleges and the new name was "symbolic of an attempt to shed both the negative images of the old technical college system and to highlight the importance of bringing together educational values and relevance to the workplace". Maharaswa (2013) concurs that the mergers were an attempt to pursue the efficiency and effectiveness of the TVET college sector. Also, the mergers were intended to strengthen the TVET colleges by merging smaller and less robust colleges into stronger institutions, which would produce economies of scale (HRDC, 2014b).

3.2.2.2 The period of early critique (2003-2009)

The period of the early critique 2003-2009 saw the consolidation of the merger process of the public TVET colleges which resulted in the appointments of the College Councils. The TVET colleges were henceforth challenged to respond more to the needs of the labour market, industry and the business community. It was during this period that 50 public TVET college principals were appointed and universal management and governance structures established at all the TVET colleges (Papier, 2010). In his May 2004 and 2005 State of the Nation Addresses (SONAs) respectively, the then president of South Africa, President Thabo Mbeki, committed government to further progress on curricular change and on institutional funding (Akoojee & McGrath, 2007). He further pledged to recapitalise all the technical colleges to ensure that they not only have the infrastructure necessary to effect change, but also the capacity and programmes relevant to the needs of the economy (DoE, 2007a).

The period saw the South African government demonstrate the criticalness of the TVET college sector as their highest priority in addressing the mid-level skills deficit of the country (Matea, 2014). The government allocated R1, 9 billon to the TVET colleges to facilitate the restructuring of the TVET college sector and R100 million bursary schemes to assist less privileged students (Akoojee, 2009; Jooste-Mokgethi, 2013; Matea, 2014). The funds were allocated to recapitalise, upgrade and better equip the colleges to deliver the NC(V) programmes and to develop the lecturing staff to teach this curriculum efficiently and effectively (RSA, 2008a; Matea, 2014). The NC (V) at NQF Levels 2-4 was also gazetted in 2006 and became the curriculum introduced in the TVET colleges and implemented in the TVET colleges in 2007 (RSA, 2008a). The NC (V) programmes were designed with the intention that it articulates to the skills needs by commerce and industry (DHET, 2012a), whereby the curriculum programme contents were aligned to the needs and aspirations of the regional labour markets and the national economies (DHET, 2012a; Matea, 2014).

Furthermore, the FET Act (Act 16 of 2006) (RSA, 2006), as an amendment of the FET Act (Act 98 of 1998) (RSA, 1998), was promulgated during this critical era in the transformation of the

TVET sector. Matea (2014) argues that the TVET colleges sector continued to be fragmented in shape and form because there was no clear distinction between the FET school sector and the FET college sector even with the government's exerted support. The shared control of the TVET college sector between the DoE and DoL, with colleges being a provincial competence, added another fragmentary element in the attempt to transform and improve on the sector's responsiveness and articulation. Through the FET Colleges Act (Act 16 of 2006) the TVET college sector was mandated to assume the role of an employer, and all the lecturers who were employed by the government were transferred to college councils as their new employers (Matea, 2014).

The Act created tension because the Green Paper for PSET (DHET, 2012a) stipulates that transferring employer status from government to college councils had a negative impact on the retention of lecturers. Accordingly, the Act gave the college councils the power to steer the colleges to be responsive to a variety of the country's economic needs. Its stipulate was that "colleges must be able to deploy lecturers when and where they are required, including for evening and weekend work to meet the specific needs of employers and communities" (DHET, 2012a:25). The implication is that the Act raised job security issues among the lecturers and led to the resignation of around 12% of the college lecturers who did not have confidence in the council as an employer (DHET, 2012a). Therefore this cohort of college lecturers resigned from the colleges because they preferred to be employed by the government (Akoojee, 2009; DHET, 2012a; Matea, 2014).

In 2006 the TVET colleges, through the bursary scheme, began to exempt all the students who qualify for NSFAS and who were doing NC (V) or N courses from paying fees (DHET, 2013a). The DHET availed financial aid to needy students who were academically-deserving and the bursary allocation tripled from R318m in 2010 to R1.235 billion in 2011. For the 2011/2012/2013 financial year the DHET's TVET college projections were estimated at R1,735 billion allocations for bursaries (Matea, 2014).

3.2.2.3 The period of deconstruction and the new moment (2009-present)

By 2009 the 50 multi-site public TVET institutions were spread over 236 campuses in the country (Field *et al.*, 2014). In 2009, instead of a single DoE, the Department was split into two, the Department of Basic Education (DBE) and the Department of Higher Education and Training (DHET) (Allais, 2011). This move was an attempt to improve the TVET sector's responsiveness to the economic needs of the country, as well as the articulation of the programmes offered to the needs of employers to remedy the lack of coordination among the PSET institutions (Allais, 2011; Matea, 2014). The creation of the DHET located the entire PSET system under a single umbrella, thus integrating the governance of the skills development institutions under a single department (Allais, 2011, Maharaswa, 2013; Matea, 2014).

The TVET college sector is still riddled with issues that weaken it to attain the mandate of being responsive to the skills needs of the labour markets and to articulate the skills needs of commerce and industry (DHET, 2013a). The Green Paper (DHET, 2012a:10) pointed out that:

> *The college sector is small and weak . . . FET colleges are varied and diverse but, with some notable exceptions, they are mainly weak institutions [that] with their present capacity, colleges can neither absorb significantly larger number of students nor achieve acceptable levels of throughput. General vocational programmes have not had time to mature and to be tested in the labour market. Training artisans has declined . . . one of the biggest dangers for these institutions is the expectation that the FET colleges should be all things to all possible learners, because there are so few alternatives. These FET colleges are constantly loaded with more and more expectations*.

By 2013 the TVET college sector was still struggling with the challenges of responsiveness, accountability, the articulation of the curriculum to the skills needs of the labour markets, and inappropriate lecturer qualifications (Matea, 2014). These are the same challenges that have plagued the TVET colleges since 2001. Matea (2014) argues that challenges that were identified

in 1995 still engulf the TVET college sector irrespective of the committed support it receives from government. He further points out that the curriculum and programme contents are not articulated to the skills needs of the labour markets; that there is a disjuncture between what is taught in the colleges and what is needed by commerce and industry (Matea, 2014).

Consequently, the DHET put forward in the White Paper on Post-school Education and Training a turnaround strategy of the TVET colleges as a PSET subsystem (DHET, 2013a). The DHET intends to build, expand and strengthen the TVET colleges that will deliver on the required programmes as an attempt to increase the throughput rate to produce at least 30 000 artisans a year (DHET, 2013a). This period has seen significant changes that led to a change of name for the sector from FET to TVET.

3.3 AIMS OF THE TVET

The specific aim of the TVET is to provide vocationally and technically-oriented education and training (DHET, 2013a). Its primary purpose is to equip students with the knowledge, skills and values that will enable their meaningful participation in and offer benefits for society, as well as providing a basis for continuing learning in higher education and training, and enable learners to be productive and responsible in the workplace (SAQA, 2001; DHET, 2013a). TVET colleges primarily provide training for mid-level skills required to develop the South African economy (DHET, 2013a).

In November 2013, the DHET (2013a: vii) released the White Paper for post-school education and training: Building an expanded, effective and integrated post-school system. The primary aim of this policy document was to set out strategies to improve the capacity of the PSET system and to outline policy directions to guide the DHET and the institutions for which it is responsible. Furthermore, the policy aims to build on the series of transformative changes that have already taken place in the sector since 1994 (cf. 3.2). The main policy objectives, as espoused in the White Paper (DHET, 2013a:4), are summarised as follows:

1. Post-school system that can assist in building a fair, equitable, non-racial, non-sexist and democratic South Africa;
2. A single, coordinated post-school education and training system.
3. Expanded access, improved quality and increased diversity of provision.
4. A stronger and more cooperative relationship between education and training institutions and the workplace.
5. A post-school education and training system that is responsive to the needs of individual citizens in public and private sectors, as well as broader societal and developmental objectives.

3.3.1 Transforming the TVET sector

With regard to the first objective, the TVET sector continues in the spirit of democratic transformation set in motion since 1994. In this regard, the White Paper acknowledges the progress made, particularly in respect of the growth of the black middle class, but also recognises the continuing social inequities created by poverty, disability, health concerns - especially HIV/Aids, and the limitations placed on rural inhabitants and dwellers in informal settlements (DHET, 2013a). It recognises that education is not a guarantor of economic prosperity but it is a driver of economic growth. Therefore, the expansion of access and the raising of the quality of the TVET sector is essential to the realisation of social justice (DHET 2013a:4-5).

3.3.2 A single coordinated system

The second objective lauds the splitting of the DoE into two departments, the Department of Basic Education (DBE) and the Department of Higher Education and Training (DHET), as part of the efforts of the new administration of 2009 to restructuring education and training (Kgobe & Baatjes, 2014). Overall, the post-school education and training system pre-2009 was still fragmented, with the technical colleges sector a responsibility of the DoE and the DoL (cf.3.2.1). This division of power posed difficulties with regard to the coordination and support between the two departments. With the split the DHET became responsible for the PSET institutions, which comprises all the

public and private institutions, including the Sector Education and Training Authorities (SETAs), the National Skills Fund (NSF) and the regulatory bodies responsible for qualifications and quality assurance (DHET, 2014; Field *et al*., 2014). The SETAs and the NSF were moved from the DoL to the DHET in order to foster a more cooperative approach to skills development (Kgobe & Baatjes, 2014). Bringing together some parts of the DoE and DoL which dealt with the PSET is integrative because both components thereof (DoE and DoL) will reside under the DHET, and thus make the PSET sector responsive to the socio-economic needs of the country (DHET, 2013a).

3.3.3 Access, quality and diversity

The third objective expounds on improving the access, quality of provision and delivery of the programmes. The TVET colleges sector has been prioritised as critical in an attempt to mitigate youth unemployment. In this regard the DHET (DHET, 2013a) envisage to enrol 2,5 million students by 2030. To improve the articulation between the higher education institutions and between the universities and other post-school institutions, the DHET plans to diversify the educational institutions to accommodate the increased number of students (DHET, 2013a). The access and the success rate of students who were previously disadvantaged, based on their race, gender or disability status would be improved by making education and training affordable through student loans and bursaries (DHET, 2013a). The TVET students have already been accorded access by not paying fees, accommodation or transport. NSFAS is currently providing financial aid to students who are needy yet deserving of assistance to pursue their studies.

3.3.4 Post-school education and the world of work

In the fourth objective, the TVET college sector in particular is mandated to educate and train mid-level skills to respond to the socio-economic need of the country (DHET, 2013a). Policy is required to forge relationships between the workplace and TVET colleges to align workplace training and work-integrated learning (WIL). TVET colleges have been relying on simulations, instead of building relations with industry and the businesses to allow for WIL. According to DHET (2013a:9):

> *Theory provides knowledge of general principles and laws, which allows additional learning and adaptation to new technologies and circumstances. Practical experience builds applied knowledge and develops self-confidence in someone's ability to act effectively.*

A relationship between the TVET colleges and industry would facilitate the process of finding workplace opportunities for students, ensuring that they are exposed to the realities of work in the real environment of a workplace (DHET, 2013a; Field *et al*., 2014). Also, it is envisaged that this relationship would open a window of opportunities for the industries to contribute in curriculum reviews. Understudy programmes could be used whereby lecturers understudy a workplace expert and *vice-versa* to exchange experiences and know-how (cf. 5.2). Such relationships could be built through the SETAs (DHET, 2013a). Hence the DHET intends to establish SETA offices in each college to facilitate WIL (DHET, 2013a; Field *et al.,* 2014).

3.3.5 Responsiveness to social and economic needs

According to the fifth objective, the DHET envisages expanding and strengthening the TVET colleges system to 2.5 million enrolments by 2030 (DHET, 2013a; Field *et al*., 2014). It also plans to review all the qualifications and programmes currently offered by TVET colleges, such as the NATED programmes and the NC (V) to create a more coherent framework. The rationale is to create a TVET colleges sector that is responsive to the socio-economic context in which it is located (Field *et al*., 2014).

In conclusion, these objectives are more or less the same as articulated in the provisioning of earlier vocational and technical education (Matea, 2014). Historically the TVET colleges were established as a response to the labour-market needs of the time (Matea, 2014). As a highest priority for the DHET agenda and mandate, the TVET has to review and address responsiveness to social and industry needs by articulating the needs of the South African community and economy by enhancing the employability of the TVET graduates (Matea, 2014).

3.4 MANAGEMENT, GOVERNANCE AND FUNDING

The coordination of the TVET colleges sector has been brought under the ambit of the DHET since 2009 (Field *et al.*, 2014; Matea, 2014). With the launching of the White Paper for post-school education and training: building an expanded, effective and integrated post-school system, the DHET has recommitted its support to making the TVET college sector an institution of choice (DHET, 2013a; Mohlokoane & Coetzer, 2007).

3.4.1 Management and governance

The management and governance of the TVET system was initially assigned to both the national and provincial DoE's (DHET, 2013a; cf. 5.2). The TVET colleges sector, as both a national and provincial competency, was shared between the two levels - the national and the provincial levels, as well as between the DoE and the DoL (Akoojee *et al.*, 2005; Allais, 2011; DHET, 2013a; Field *et al*., 2014; cf. 5.2). The complexity of this administration system posed challenges to the efficiency of the system (Field *et al*., 2014).

The more efficient and effective management and governance of the TVET college sector came with the creation of the DHET in 2009 (cf. objective 2). The DHET was tasked with the development of the human resource capacity of the workforce in an inclusive manner by bringing together the responsibility for university and college sector, the Sector Education and Training Authorities (SETAs), the National Skills Fund (NSF), and qualification and quality assurance bodies (Field *et al*., 2014; cf. 3.2.2). The FET Colleges Act of 2012, as amended, shifted the administrative function of adult learning centres and TVET colleges from the Provincial Education Departments (PEDs) to the DHET (DHET, 2013a). This Act brought along its trail a transfer of staff from the TVET college section in the PEDs and TVET college staff to the DHET (DHET, 2013a).

The location of TVET colleges in the DHET is a milestone in the transformative agenda of the PSET system. There are some disadvantages as a result of the imbalances of the previous separate

education provisioning system (cf. 3.2.1). Some TVET colleges have been put under administration due to weak financial and human resource management (DHET, 2013a). Nonetheless, the advantages of the shift far outweigh the disadvantages.

For the TVET colleges the shift to the national department heralds huge benefits of a unitary TVET colleges sector with a single vision that can be presented to the public. The potential to uplift the image, marketing and quality of the TVET colleges is huge and has a ripple effect to improve the cooperation among colleges, SETAs and universities. An integrated TVET College sector would enhance institutional coordination between the TVET colleges and the SETAs (DHET, 2013a). As a consequence, the TVET colleges would have leverage to forge sound relationships with the industries and through these, open potential doors for funding and support from the industries. Also, with all public TVET colleges under the DHET umbrella, the portability of the TVET college qualifications would be measured. With a pivotal mandate to develop human capital, the TVET colleges are organised in such a way as to improve governance and management of the sector and to improve the country's competitiveness, innovation and growth (DHET, 2013a).

3.4.2 Funding the TVET colleges

The National Norms and Standards for Funding FET Colleges (NSF-FET Colleges) (DHET 2009) stipulated:

- Each student enrolled in a state-funded programme must be subsidised by the state - 80% of the total programme cost; 20% was to be recovered from the student. Field *et al*. (2014:24) indicates that bursaries offered to the TVET college students increased from R100m in 2007 to R1, 7 billion in 2012.
- The government is to introduce a TVET college bursary scheme to ensure that academically deserving but financially needy students gain access to education and training opportunities in TVET Colleges.

The DHET developed guidelines for the administration and management of the TVET college bursary scheme. The funding structure was also complex in that the national DoE allocated funds to the PEDs who, in turn, allocated funds to the TVET colleges according to the number of student enrolments and the programme costs. The funds earmarked for TVET colleges were determined by the PEDs according to the number of TVET colleges in the province. Funds were then adjusted annually, based on the consumer price index (CPIX). Entangled in other provincial duties and functions, the provinces did not prioritise the TVET colleges equally in their budget allocations. This led to huge discrepancies and affected the participation rates from province to province in a profound way. To align the TVET with the requirements of the Financial and Fiscal Commission Act (Act 99 of 1997), the TVET colleges were shifted from the provincial sphere of administration to the national sphere (cf. 3.4.1; DHET, 2013a). The rationale was to have an integrated TVET college sub-system that is run and funded equitably. The TVET colleges sector is thus currently centrally coordinated by the DHET, which also coordinates the allocation for provincial schooling budgets (Akoojee *et al.*, 2005).

The DHET intends to use a funding model that would address their quest to strengthen and diversify the TVET sector. As explained above, the colleges administer a bursary scheme to alleviate pressure from students from poor families who are deserving of financial assistance. The consideration of the funding is based on the different status and the geographical location of the colleges, for example, urban versus rural TVET colleges. The DHET has planned to fund foundation or bridging programmes to support deserving students.

Strategies of how to top-up government funding from student fees as well as from the college's initiatives to raise funds, either in collaboration with the SETAs, the businesses, commerce and the industries, are needed. Field *et al*. (2014:24) indicate that through the levy grant system employers of students contribute R10.2 billion annually to the skills development fund. Furthermore, companies that provide learnerships (work-based learning with the aim of gaining a suitable qualification within the South African National Qualification Framework (NQF), Level 1 to 8) get a tax reduction as an incentive to integrate WIL and to improve on articulation with the prevailing socio-economic environment (Field *et al*., 2014).

3.4.3 Conclusion

This section indicated that moving the management and governance of TVET colleges from the provincial to the national sphere of responsibility potentially made the colleges uniform and equalised funding. As the provinces did not formerly prioritise colleges on their budget allocations, TVET colleges' funding provision was uneven across the provinces. The TVET college sector as a priority for national middle-level skills development is a socio-economic investment and thus is a critical priority for the DHET. TVET colleges ought to be managed and governed centrally for the return on investment (ROI) to be evident. This calls for adequate funding of the TVET sector to advance South Africa's skill base. WIL is pivotal in addressing the skills repertoire of the students by providing them workplace experience. However, public TVET colleges find it difficult to provide workplace training for employment due to a scarcity of dedicated funding to make possible long-term training of occupational routes (HRDC, 2014a).

3.5 THE ORGANISATIONAL STRUCTURE OF THE FET SECTOR

As mentioned above, the TVET colleges are a national competency and no longer a provincial competency according to the FET Colleges Amendment Act (Act. 3 of 2012) (DHET, 2013a: 12). As a national competency, the colleges are the responsibility of the DHET.

Figure 3.1 is a representation of the DHET's conceptualisation of a holistic post-school system aimed at providing education and training. Envisaged in this structure is cooperation and support among the post-school institutions (DHET, 2013a).

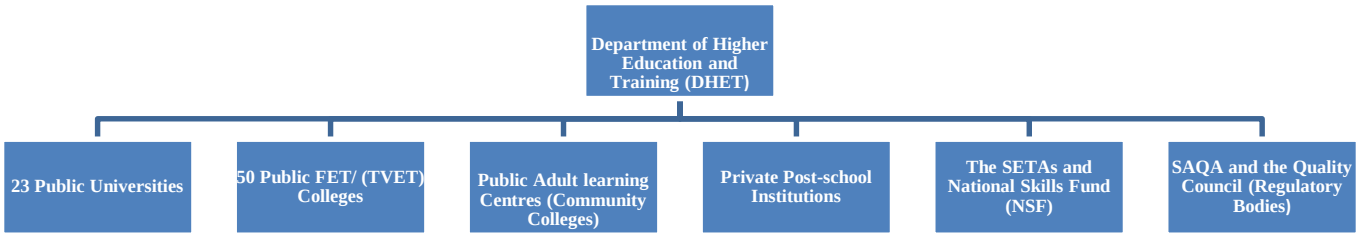

Figure 3.1: Representation of the post-school system

Another crucial aspect of a single coordinated post-school system is easy articulation between the post-school institutions. This has the potential to enhance portability of qualifications particularly in the event where "curricula are designed to permit articulation between succeeding levels of the National Qualification Framework" (NQF) (DHET, 2013a:6). A single national higher education and training system is seen as "affordable, sustainable and capable of contributing effectively to social and economic development of South Africa" (Mestry, Bosch & Grobler, 2013).

Figure 3.2 below shows the comprehensive organisational structure of the DHET and how the TVET colleges sector is governed from the TVET college council. The White Paper indicates that college leadership at council and management levels is important in the transformation agenda of the TVET colleges (DHET, 2013a).

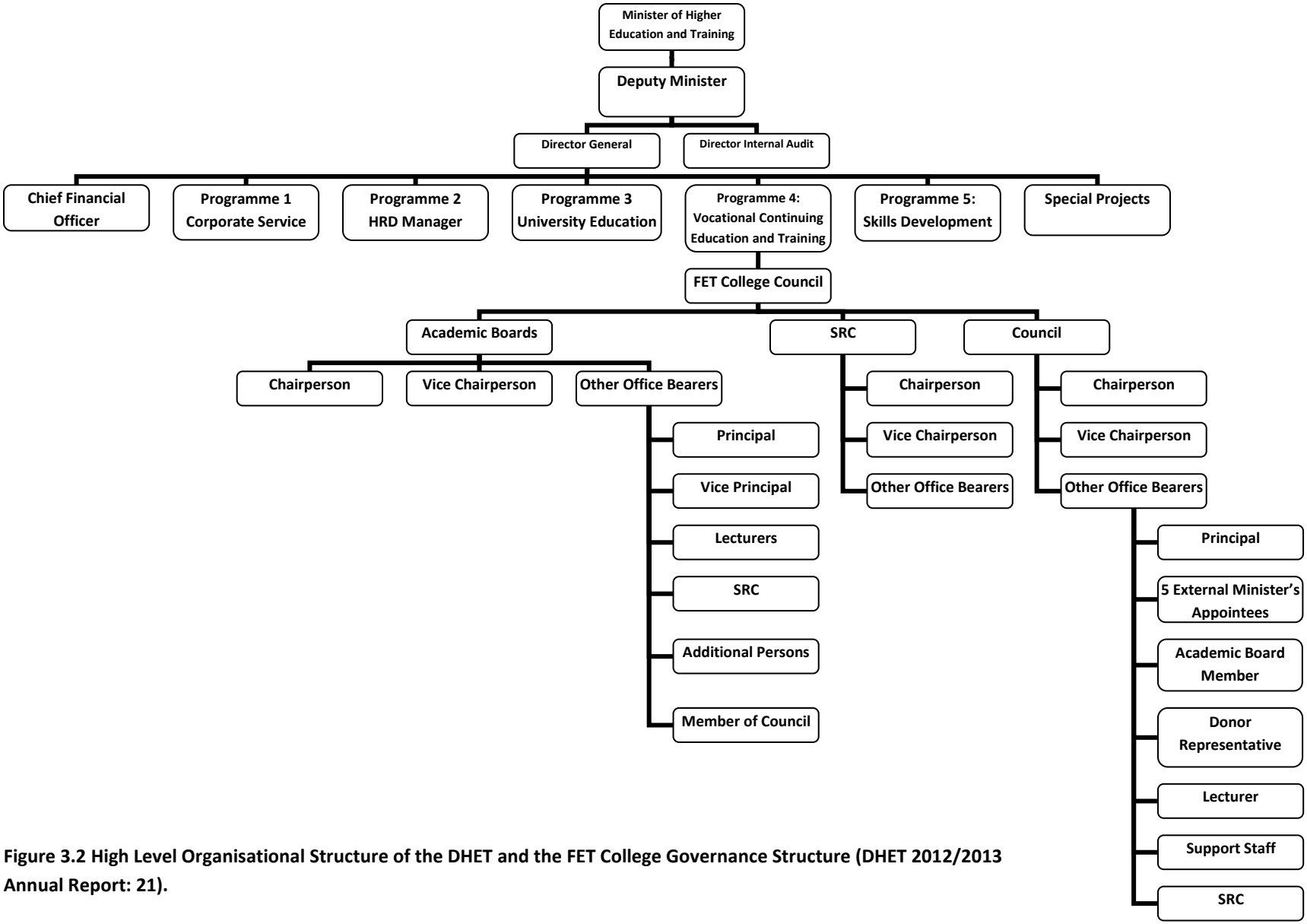

Figure 3.2 High Level Organisational Structure of the DHET and the FET College Governance Structure (DHET 2012/2013 Annual Report: 21).

Figure 3.3 is a representation of the public TVET college structure from head office to campus.

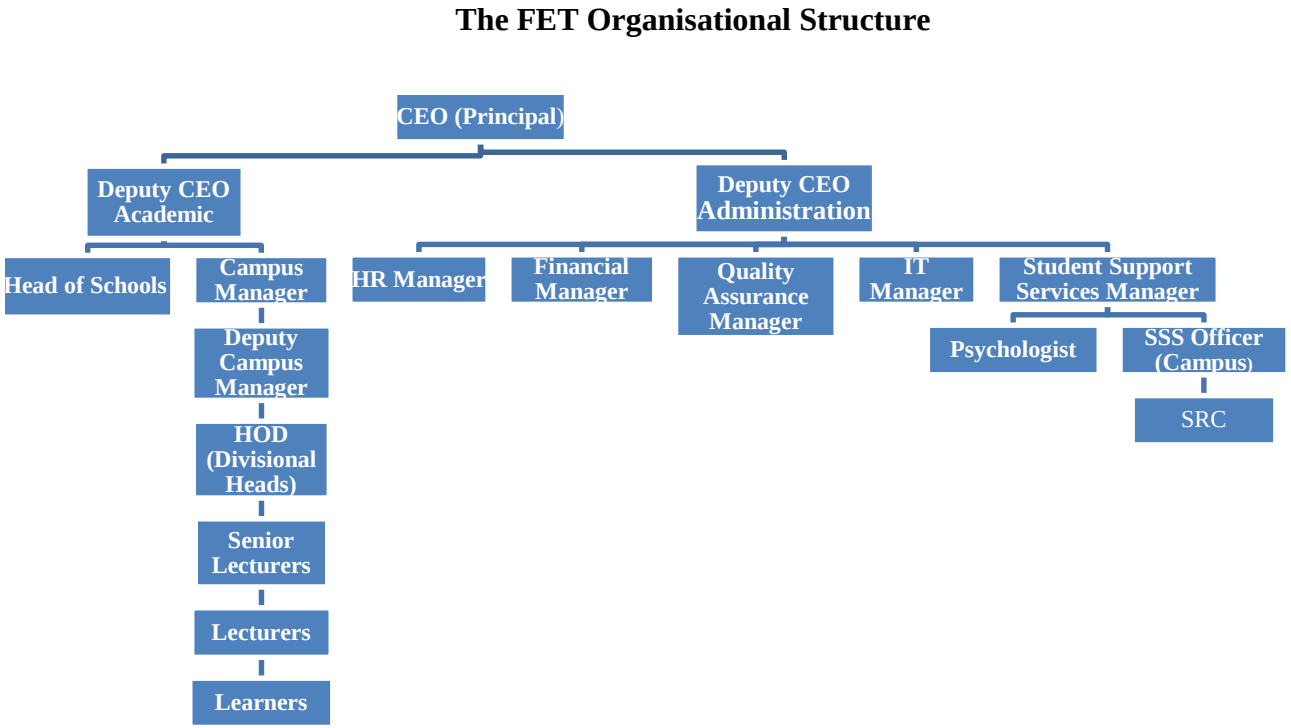

Figure 3.3: Representation of the TVET Organisational Structure

3.6 CURRICULUM FOR THE TVET COLLEGES

This section outlines the TVET colleges' curriculum. The NC (V) on the NQF Levels 2-4 is a curriculum that was introduced to replace the NATED (N) 191 programmes (N1-N6). The NATED programmes will be discussed first since it precipitated the need to transform the TVET colleges' curriculum. The historical evolution of a TVET college sub-system is an attempt to address the socio-economic context of the time by aligned the curricula offered to the needs of the workplace to ensure the smooth transition of TVET college graduates from college-to-work concomitantly facilitating the sector's responsiveness and articulation to the broader needs of the labour markets (Field *et al*., 2014).

3.6.1 The Report 191 curriculum or NATED (N) programmes

The occupational qualification, the Report 191 curriculum, was a curriculum that was offered in technical colleges until 2006. This qualification requires from students to complete part of the qualification at the college (knowledge component) and part of the qualification at the workplace (work experience, e.g., apprenticeship or internship) resulting in a National N-Diploma at NQF Level 6 (Field *et al*., 2014)**.** The duration of each level of the N programmes is one semester or a trimester, whereby the whole programme is completed in three years (Field *et al*., 2014). For students to qualify and to be granted a licence of competence as artisans, they need to have accrued 2 000 hours of work experience (Field *et al*., 2014).

The National Technical Education (NATED) comprises of courses that were offered in the former technical colleges (cf. 3.2.1). The N or 'NATED' programmes have part 1 and part 2 qualifications (N1 to N6) that are purely vocational (Field *et al*., 2014). Part 1 is for Engineering Studies and is for students who have passed Grade 9 and then enrol for N1 to N3 (cf. fig. 3.4). A N3 pass allows entry to Part 2 - N4 to N6. Part 1 is underpinned by Competency-based Modularised Training (CBMT) (cf. Fig. 3.4.) whereby students have to undergo intensive training both at workshops and the workplace. It is only upon completion of the workplace training that students are allowed to write a trade test (HRDC, 2014a). There has been a shift in the duration of the on-the-job practical training from 83 weeks as a minimum requirement between 1998 and 2013 (HRDC, 2014b). Currently, the Trade Test Regulations recognise competence as the only criterion that qualifies a student to write a trade test (HRDC, 2014a).

The student is declared competent either by the employer or through the recognition of prior learning (RPL) process (HRDC, 2014b). The entry requirement for Business and Services-related programmes, on the other hand, is Grade 12 (cf. fig. 3.5), and the student begins the programme at N4 (HRDC, 2014b).

The duration of each level for both Part 1 and Part 2 programmes (cf. Fig.3.4 and 3.5) is one semester or trimester, depending on the programme the student follows. The entire programme can be completed in three years (Field *et al*., 2014). The HRDC (2014b) unpacked the sequence and indicated, for example, that in the N programme Engineering Studies offer 4 subjects per level, the duration of which is 10 weeks, while the Business and Service-related programmes also offer 4 subjects but for 6 months, that is, a semester-long programme (HRDC, 2014b). To obtain the NATED diploma which grants the students a license to practice in artisan jobs the student should have written and passed the trade test.

Figure 3.4 depicts the entry into Part 1 of the NATED programme whereby the workplace experience is made compulsory at N2 before a student can proceed to N3.

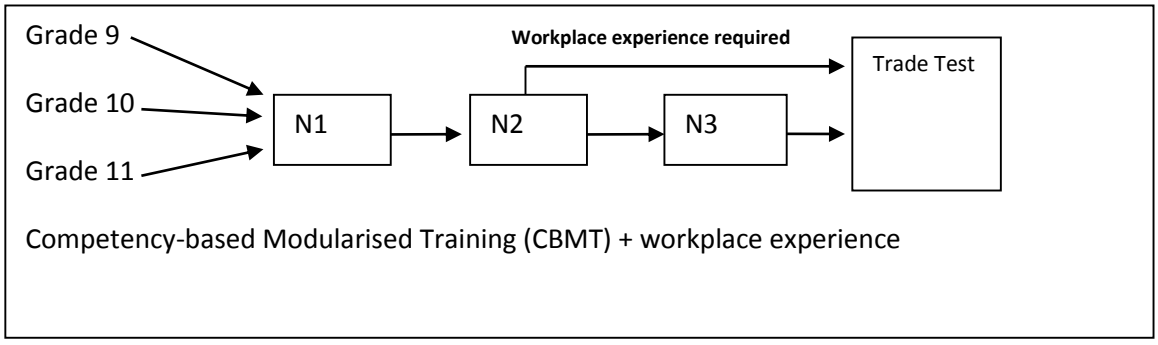

Figure 3.4: Part 1 of the NATED programmes replaced by the NC (V)

Part 2 of the NATED Engineering programmes is only done after a student has passed Grade 12 or N3. Unlike Part 1, students who pass N6 obtain a National N Diploma after 18-24 months' workplace experience.

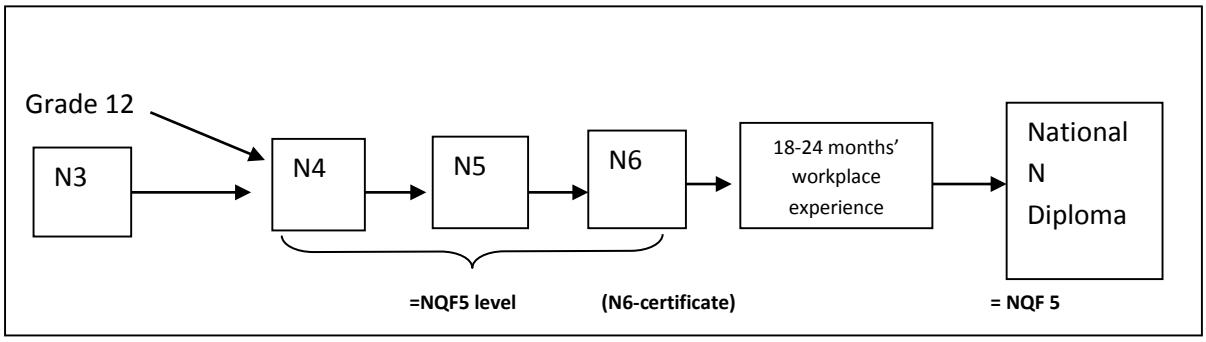

Figure 3.5: Part 2 of the N-programmes in Engineering Studies

Figure 3.6 depicts the entry requirement for a student to enrol for the NATED programmes in Business and Service-related programmes. Students qualify to register only when they have passed Grade 12. At the completion of the N6 plus 18 months or 2000 hours workplace experience they obtain the National N Diploma.

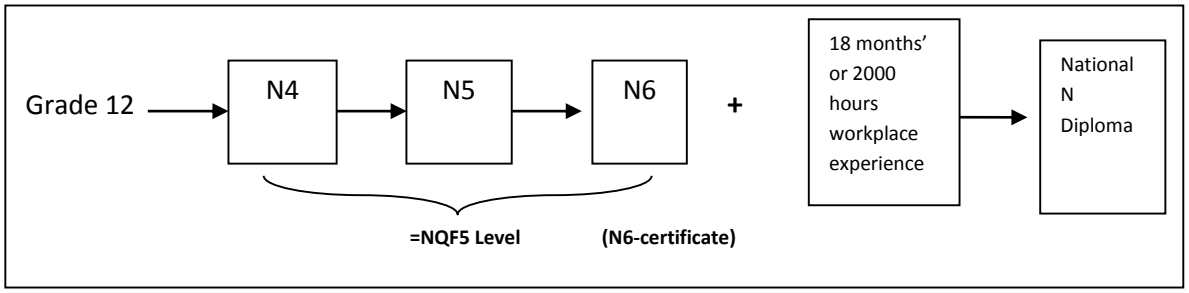

Figure 3.6: Part 2 of the N-programmes in Business and Service-related programmes

Part 2 of the N programmes qualification is N4-N6. Its entry requirement is N3 that could lead to N6. At the completion of N6, a student obtains an N6-certificate which opens a door of opportunity for the student to complete 18 months or 2 years of relevant work experience to obtain a National N Diploma (NQF Level 5) (DHET, 2011). This suggests that a student who obtained a N6 certificate enters the job market with some practical workplace experience, while the one with the National N Diploma has 18 months or 2 years' workplace experience (HRDC, 2014b). In 2007 Part 1 of the NATED programmes, N1-N3, were earmarked to be replaced by the NC(V) as the programmes were being phased out (DHET, 2013). However, the NATED programmes are still being offered in some colleges, and accordingly are being reintroduced and reviewed in the TVET colleges (Papier, Needham & McBride, 2012). The DHET has halted the process of phasing out the NATED programmes, thus allowing the students to

register for N1 to N3 Engineering and N4 to N6 Engineering, Business and Service-related programmes (Papier *et al.*, 2012).

3.6.2 The structure of the NC (V)

The curriculum now offered at the public TVET colleges is the NC (V) that was implemented at the beginning of 2007 (HRDC, 2014b). This curriculum was intended to replace the N programmes which were deemed to be outdated. The DoE envisaged that the NC (V) programmes address the issues of redress, articulation and responsiveness to the socio-economic backlog of the intermediate skills in South Africa. The HRDC (2014b: 17) indicated that the NC (V) was introduced to provide a general-vocational post-school qualification that could be delivered to a large mass of the young people. The programmes of the NC (V) include three fundamental subjects, Language, Life Orientation, Mathematics or Mathematics Literacy, and four core subjects grouped into 19 vocationally-oriented programmes, namely engineering, business studies, agriculture, commerce, and education (DHET, 2013a; Field *et al*, 2014). The fundamental subjects are compulsory at each level of the NC (V). After one year full-time students who have passed attain the NC (V) level 2, NQF level 2, and after three years of successful study, students obtain the final qualification of NC (V) Level 4, NQF level 4. In principle, students can exit after successful pass of any NC (V) levels 2 or 3. The programmes were intended to be foundational, thus ushering the students into employment since the practical component of the programmes were simulated on the college campuses (DHET, 2011)

In Figure 3.6 a depiction is given of the entry requirements from which students enrol for the NC (V) programmes. Grade 9 is the initial legislated grade a student should have passed to enrol in the NC (V) programmes.

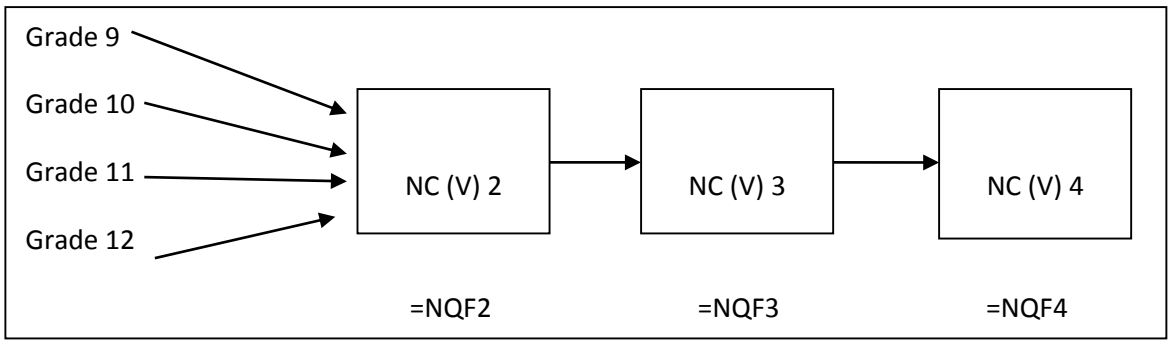

Figure 3.7: Current pathways into a TVET College for the NC (V) programme

The curriculum was designed for students who have passed Grade 9 of the academic stream (DHET, 2013a). However, Grades 10, 11, and 12 students are also being enrolled in the TVET at NC (V) level 2. This has brought unintended challenges to both the lecturers and the students to cope in a multi-level classroom with students of different competency levels (cf. chapter 5, HRDC, 2014 b). Taylor (2011) argues that the NC (V) was designed as a parallel stream to the National Senior Certificate (NSC) to prepare the students for occupation-specific training and thus for the world-of-work, while the NSC prepares the students for entrance into higher education. The NC (V) is offered according to a very tight schedule with seven subjects each allocated 45 minutes; on a normal college day all the seven subjects are offered, the three fundamental subjects and the four core subjects. This state of affairs compromises the practical component of the programme which is planned on the ratio of 40% theory: 60% practical work. According to the HRDC (2014b) the infrastructure and resources for workshops at the college campuses are inadequately resourced to inculcate the practical skills required by the industry. As a consequence, time, money and curriculum content impinge on the efficient and effective delivery of the mandate of the NC (V) programmes (cf. chapter 2). The HRDC (2014b) argues that few TVET college campuses have training and simulation centres where the students could gain the practical experience needed by the industry. The implication is that students qualify with a NC (V) level 4 with little or no work experience apart from that gained through the simulations (HRDC, 2014b). Furthermore, the content of the NC (V) is perceived to be incongruent with the socio-economic needs of the country.

3.6.3 Current links existing between the NC (V) and NATED

The N programmes are purely vocational, and do not offer the fundamental courses offered in the NC (V) programmes (cf. 3.6.2). Also, unlike the NC (V) programmes, the duration of which is a year per level, the NATED programmes do not run a long time; their duration is one semester for the Business and Service-related programmes and a trimester for Engineering Studies. Nonetheless, "both NC (V) and N programmes are assessed through final examinations and assessments, along academic lines, with levels of performance and distinctions awarded" (Field *et al*., 2014:22). Furthermore, both programmes are equally quality assured by Umalusi under the auspices of the DHET.

3.6.4 Conclusion

This section indicated the parallel curricula that are being offered at the TVET as an attempt to expand the PSET to be responsive to the needs of the country and the economy.

3.7 LECTURER QUALIFICATIONS AND THE TVET COLLEGE SECTOR

Teacher training is a crucial aspect for any educational system to run smoothly to achieve the intended outcomes. Teachers (in this context, lecturers), it is argued, are the backbone of efficient and effective quality education. They may be trained at the initial stage before they qualify as teachers, called pre-service training, induction, or through upgrading programmes while in-service as qualified teachers - professional development programmes.

3.7.1 Lecturer development for the TVET College sector

In the South African educational context there is a dearth of literature with regard to teacher (i.e., lecturer) training in the vocational and technical sector. Lynch (1996) argues that a clearly focused conceptual framework that underpins vocational and technical teacher education needs to be developed to inform the vocational and technical colleges sector. Furthermore, a strong sense of professional identity with a body of knowledge related to vocational and technical teacher education and training needs to be forged in order to prepare college lecturers (Lynch, 1996).

The most important indicator for the success of a teacher training college is the quality of the education offered, and consequently, the success of its students. The Education Training and Development Practices Sector Education and Training Authority (ETDP-SETA) (2012:27) shows that according to the study done by Mgijima and Morobe in 2012, the TVET college sub-sector employed a total number of 15744 staff made up of 8686 lecturing staff, 6593 support staff, and 465 management staff in 2011. The qualification breakdown of the lecturing staff showed that 1.9 % had N6 qualification, 37.7 undergraduate diplomas, 27.1 held a degree, 30.6 had postgraduate diplomas, 2.4 a master's degree and 0.3 a Ph.D. Training and developing TVET college lecturers is imperative, given the high priority the DHET has given to this sector. The White Paper for Post-school Education and Training noted that previously no university in South Africa trained technical and vocational education lecturers. This has since changed. Some universities have started training lecturers to teach in the TVET colleges (DHET, 2013a). The statistics regarding lecturer qualifications mentioned above are suggestive of a need to set a standard of what constitutes a qualification as a vocational and technical education lecturer.

In 2007 the NC (V) was introduced in the TVET colleges as a general vocational programme which included both academic and vocational subjects (DHET, 2013a). The introduction of such a curriculum signalled the need to review the qualifications of TVET lecturers. However, the universities and teacher education colleges in South Africa did not have specific departments assigned to train TVET college lecturers. While what defines the qualifications for school teachers is very clear, for TVET colleges the concept has been somewhat elusive. The FET Act (Act 16 of 2006) defines a *lecturer* as someone who "teaches, educate or trains" another person (RSA, 2006; cf. also 1.7.3). The training of TVET college lecturers has not been clearly defined. This could perhaps be attributed to the historical factors underpinning the technical institutes' lecturer requirements. To be appointed, the lecturers had to have technical qualifications and skills-related working experience, rather than teaching qualifications. As a result most technical college lecturers with trade and industry experience did not hold formal teaching qualifications, while some of the technical teaching staff did not have any practical work experience at all. This culminated in the majority of the lecturing staff being either underqualified or unqualified (ETDP-SETA 2012). The Organization for Economic Co-operation and Development (OECD) Review found that 25% of the 9000 TVET college lecturing staff members had no recognised tertiary qualifications, more than half had no industry experience, that only a small number of lecturers had artisan qualifications, mostly in

the electrical and automotive trades (Field *et al.*, 2014). This indicates that in general most of the TVET college lecturing staff members were either unqualified or unqualified, offering the courses or trades in specific fields. With the need for transformation of the fundamental functioning of the technical colleges becoming necessary to address the society's changing needs, the training of TVET college lecturers also has to be reviewed (DHET, 2013a; Field *et al.*, 2014). The need to address the question of appropriate teaching qualifications for college lecturers has arisen, and it has to be addressed (DHET, 2013a).

In the TVET college environment many factors contribute towards the notion of being qualified to teach. These include a formal teaching qualification, specialist (content) knowledge, relevant work experience, and natural ability (DHET, 2013a). The Government Gazette (RSA, 2006) cites the lecturer categories and general prerequisites for all college lecturers to qualify to teach at a TVET college. Accordingly, lecturers are to be in possession of or to obtain the following qualifications, either through full-time contact or distance education through recognised colleges and/or service providers.

i. **Basic academic competence**: This is equated to higher education entrance requirements which are met by the National Senior Certificate (NSC) and the NC(V) qualifications.
ii. **Work experience**: A minimum of 3 years' general work experience is a prerequisite for college lecturers employed to teach vocational subjects and for workshop-based teaching. However, this does not apply to lecturers for the general academic/functional subjects.
iii. **Pedagogic competence**: TVET College lecturers must have attended a specifically designed Vocational Education Orientation Programme (VEOP). If not, they have to undertake to complete the course within two years of having taken up the post as lecturer.

The pathway for each of the above competence is explicated in the Government Gazette, (RSA, 2006:22-23). However, policy on educational training required for college lecturers is lacking. Furthermore, teacher training colleges would develop and maintain a close working relationship with employers in the different areas of study to provide teacher trainees practical experiences. Close partnerships between the colleges and the employers will assist the colleges

to locate opportunities for WIL and help them to place students when they complete their qualifications. Consequently, the college staff would get regular workplace exposure that will facilitate skills and knowledge and reflexive competence. At the same time workplace exposure will allow both the lecturers and students to keep abreast of developments in specific industries (DHET, 2013a). The colleges and the universities should be responsible to reform initiatives in the TVET sector and thus appropriately prepare and increase production of technical and vocational lecturers through relevant training (DHET, 2013a).

Mestry *et al*. (2013:144) assert that along with the mergers came increased uncertainty of the future on the part of the TVET college staff who feared "job losses, relocations, changes in conditions of service." The inception of the NC (V) was the proverbial 'last straw on the camel's back' for lecturers. Being either under- or un-qualified, as most of the TVET college lecturers were, created an unprecedented stressful TVET college landscape.

3.8 PARTNERSHIP WITH THE ECONOMY/INDUSTRY

The DHET declared the TVET college sector as its highest priority that it intends to strengthen and expand (DHET, 2013a). The DHET intends to forge a strong relationship between the TVET colleges and the industry, in line with the Green Paper (DHET, 2012a) to ensure the development of the intermediary skills repertoire of the students. A symbiotic relationship between the colleges and the industry, based on value propositioning has the potential to encourage the industry to play a significant role in college curriculum development. By means of this partnership the TVET college sector would determine skills needed in the labour market. Forging economic workplace-learning partnerships would not only create opportunities for the students for practical training; it would also keep college lecturers abreast of the developments and trends in the industry, at the same time opening up the possibility for the employability of the college graduates (DHET, 2013a). The partnership between the TVET college sector and the industry would make the sector responsive to the economic needs of the country.

3.9 SUPPORT SERVICES

Student and lecturer support services are crucial in TVET colleges given the transformation processes in the sector in order to adapt to the demands of college life but also to meet the

demands of the college mandate (DHET, 2013a). The TVET colleges offer various support services for students. Firstly, students receive academic support, particularly those who attended school in previously disadvantaged schools and in the semi-rural and rural areas (DHET, 2013a). According to the White Paper (DHET, 2013a), such students have not been provided with a sufficient educational basis to cope with the requirements of college studies. For this end the DHET provided funding to support student learning. Secondly, the students are supported financially with bursaries through the NSFAS bursary fund (DHET, 2013a). Thirdly, students are assisted by colleges to find workplaces for the practical components of their programmes and also jobs on the completion of their studies (DHET, 2013a). Accordingly, the White Paper stipulates that every TVET college has to have a dedicated student support services office to coordinate all these service (DHET, 2013a). However, the HRDC (2014a) comments that the student support staff often are ill prepared to assist learning through special programmes aimed at helping students develop cognitive skills and study methods.

3.10 CHALLENGES TO THE FET SECTOR

The TVET College sector has both challenges and prospects – multifaceted, complex, ongoing changes. The challenges the TVET colleges face are manifold. To cite but a few, the sector grapples with issues of improving student access and retention, quality leadership and employability. This section categorises the problems into four groups: systemic problems, infrastructural problems, issues related to students and issues related to lecturers.

3.10.1 Systemic problems

The TVET systems has historically faced fundamental challenges to attain quality teaching and learning (cf. 1.2; 3.2). These need to be systematically addressed. As a continually developing sector, the TVET college sector is positioned between the GET and HET bands. Consequently, the TVET colleges have been marginalised in the provision of most aspects of education and training (Wedekind, 2009). College governance and management have been compromised due to the fluidity of policies and procedures in the light of the two centres of administration: the national and provincial Departments of Education (Wedekind, 2009). Moreover, as described in both chapters 1 and 3, the sector has experienced a plethora of changes since 1994, both legislative and policy (cf. Table 1.1). In this regard the sector can be regarded as lacking policy

continuity (FET Round Table, 2010). Although TVET colleges are now declared a national competency, governed and funded nationally, college governance and management still need to be enhanced to improve the efficiency and effectiveness of the TVET colleges. The shift from the provincial function to a national one still requires attention by all role-players and stakeholder (FET Round Table, 2010). Thus, in spite of transformation, TVET colleges have a long way to go towards a high quality TVET college system that addresses the ideals of a competitive growing economy (FET Round Table, 2010).

3.10.2 Infrastructural problems

The infrastructural development of the TVET college sector is shaped by the earlier technical college model. This model allowed the provision of technical education a limited student intake at any one point. However, the model does not address the expanded access envisaged by the DHET in the National Plan (DHET, 2013a). Compounding this is the NC(V) programme curriculum currently implemented in the TVET colleges. The NC(V) demands simulated work or practical learning at the TVET college campus (FET Round Table, 2010). Accordingly, with the changes that occurred since the transitions and the merger of the 152 colleges to 50 multi-site TVET colleges the facilities and equipment have not been upgraded to facilitate simulated practical learning (Papier, 2010; DHET, 2013a; Field *et al.*, 2014). Moreover, simulated learning is very equipment-intensive and presents huge challenges to the FET college sector (FET Round Table, 2010). The DHET, through its post-school infrastructural expansion projects, intends to spend only R2.5-billion out of R12.6 billion government planned infrastructure programmes on the TVET college infrastructure over the coming three years (DHET, 2013b). Accordingly, 12 TVET Colleges will be built while extensive upgrading is being done on two existing FET campuses (DHET, 2013b). Expanding the geographical spread of TVET colleges throughout the country is envisaged to ensure that students who choose to pursue a vocational career have access to institutions that provide quality VET. The DHET intends to refurbish the TVET colleges' poor infrastructure of residences and lecture halls, as well as to address water shortages that affect the residences (DHET, 2013a). It also envisages upgrading and constructing ICT systems and networks for TVET college programmes to enhance relevancy to South Africa's market and economic growth projections (FET Round Table, 2010).

3.10.3 The language of teaching and learning

The South African context presents a very complex socio-cultural issue given the multilingualism of the country. The impact this has on communicative competence in teaching and learning is an unprecedented challenge. Chinyamunzore (1995) argues that being able to communicate is an important feature of educational success and employability. The Constitution of the Republic of South Africa takes cognisance of the importance of a home language in teaching and learning (RSA, 1996). It recognises the 11 languages of South Africa as official languages of equal significance. Also, enshrined in the Constitution is the Bill of Rights which categorically states that, "everyone has the right to use the language and to participate in the cultural life of their choice, but no one exercising these rights may do so in a manner inconsistent with any provision of the Bill of Rights" (RSA,1996:15). However, English has emerged as language of teaching and learning (LoTL) in most of the South African educational institutions. Research has found that of the biggest problems students encounter in TVET colleges is lack of language proficiency in the LoTL and poor comprehension of teaching and teaching materials presented in English (Kraak & Hall, 1999). Powell (2013) found that in 1998, more than two thirds of the students enrolled in TVET colleges were English second language black students. This could be a contributory factor towards attrition tantamount to dropping out from the system, which in turn has an effect on throughput. Gamble (2004) argues that in a country where the majority of the students learn in a language that is either their second or third language, the frustration this presents to the TVET sector could be envisaged.

Wedekind (2008:17) contends that little is known about "how both the [TVET] students and staff deal with issues of language in the classroom and workshops given the radical unbalanced changes in the home language mixes of both groups". The Minister of Higher Education, Minister Nzimande, also laments the status of African languages in the South African educational landscape. He argues that no concerted, or rather very little effort is made to address the historically diminished use and status of the indigenous languages of South Africa (DHET, 2011). This also has implications for the TVET.

3.10.4 Student issues

In principle, as TVET colleges offer the NC (V), an alternate of the NSC, at NQF Levels 2-4, the student components ought to be those who have passed Grade 9. Instead, the majority of the students enrolled in FET colleges are mainly students who have either passed or failed Grade 12 (Taylor, 2011). This poses a challenge in funding and in teaching, as well as in increasing the successful participation of the TVET college sector in the broader educational imperatives of the country. In funding some students, particularly those who passed their Grade 12, use TVET colleges as 'holding pads' while they wait to either enter the job market or higher education institutions. Since most students are fully funded through the NSFAS bursary scheme, this state of affairs becomes counterproductive. Those who passed Grade 12 drop out of the colleges as soon as they get a job or find an alternate into higher education (cf. par. 5.2.4). This, Taylor (2011) argues, represents a poor return on a major investment in student funding. The throughput rate is also affected.

NSFAS is intended to contribute towards increasing access and participation rates in TVET. Therefore, students who do not complete their TVET college programmes of study negate the investment made by NSFAS. Moreover, financial management is one of the challenges the TVET college management struggles with. To counter this, though, the DHET intends to appoint a qualified chartered accountant as chief financial officer (CFO) in each college (DHET, 2013a). The CFOs are to ensure proper control over college finances, to put in place sound accounting systems and to mentor the financial staff (DHET, 2013a).

Also, the expansion of access as espoused in the National Plan for TVET colleges of 2008 is another thorny issue given the transitions TVET colleges went through. Expanded access would require intensive and comprehensive support (FET Round Table, 2010). The redress of previous imbalances has also not yet been achieved. The calibre of students the TVET colleges attract shows that the public TVET colleges, in particular, are not the preferred PSET institutions the country envisaged. The few students that opt for the TVET colleges are not sufficiently prepared for the workplace due to the poor quality of the education and training providers.

Multi-level classes where there are students with Grades 9, 10, 11, and 12 have brought about dissatisfaction among the students. While students with Grade 9 struggle to cope with the demand of the NC(V) programmes, those students who have Grade 10 upwards, repeat what they have done at schools since Grade 10 is equivalent to NC(V) Level 2, particularly in respect of the fundamental subjects (DHET, 2013a; cf. Chapter 5). This creates tension in the classrooms amongst the students, where for some the pace in the teaching is slow and for others it is fast; the programme content is either too high or too low. The lecturer constantly has to work towards striking a balance. The TVET colleges have resorted to give priority to registering students with Grade 12 since they cope better with the NC (V) programmes as opposed to the Grades 9, 10, and 11 students (Gewer, 2012).

Table 3.1: TVET Colleges sector student enrolment as in 2012

The TVET colleges sector			
Public TVET colleges		**Private TVET colleges**	
Programmes	**Number of students**	**Programmes**	**Number of students**
NC (V)	140575	NC (V)	4181
N1-N3	125096	N1-N3	3790
N4-N6	234528	N4-N6	12337
Occupational qualifications	62359	Occupational qualifications	47156
Other	95132	Other	48122

Source: DHET (2014): Statistics on Post-School Education and Training in South: 2012" in the OECD Review of Vocational Education and Training: A Skills Beyond School Review of South Africa

Table 3.1 indicates the students enrolled at the TVET college sector in 2012. In the public TVET colleges the NATED programmes registered more students in the N4-N6 courses, 234528, 93953 more that the NC (V) with 140575. The inverse is the number of students enrolled in the private TVET colleges, with 48122 enrolled in other programmes and 4181 in the NC (V) programmes (Field *et al*., 2014). There is a stark difference in the number of registered students in the N4-N6 at the public TVET colleges as compared to the private TVET

colleges with 4181 students registered for the NC (V) programmes. 48122 students registered for other programmes in private TVET colleges largely due to the fact that these courses are aligned to the industry's needs, and therefore open up employment opportunities for graduates (DHET, 2014).

3.10.5 Lecturer satisfaction

With regard to teaching, most college lecturers, as indicated earlier, do not have the capacity to work with students as diverse as those enrolled in the TVET colleges. In 2010 half of the students enrolled in the TVET colleges had passed Grade 12, and therefore held the NSC qualification that is equivalent to level 4 NC (V). This implies that colleges have two target populations - those with the NSC and those without grade 12. According to Taylor (2011), the curricula do not cater for this mix nor are the lecturers prepared for this diverse group of students. This potentially poses a challenge to the college lecturers in their attempt to reach all students, and could impact adversely on student support. Moreover, the FET Round Table discussions showed that there were potentially serious shortfalls in both the pedagogical and the technical qualifications of the lecturers (FET Round Table, 2010). In an attempt to resolve the above, a General Certificate of Education (GCE) at the end of grade 9 is being proposed to provide a quality filter for the senior phase of the DBE (Taylor, 2011). The GCE would perhaps be an important differentiating aspect between the senior phase of schooling and the TVET colleges. Through the GCE it is envisaged that students would be directed whether to go the NC (V) programmes route or the NSC one in order to obtain a TVET certificate qualification at NQF Level 4.

To sum up, an umbrella view of the problems TVET colleges sector grapples with would not explicitly project the intensity of the challenges.

3.10.6 Public perceptions of the TVET

Public perceptions with regard to the TVET have not been encouraging students to make a technical vocational education and training a career of choice (Powell, 2013). This could be either due to historical factors associated with technical schools/colleges (cf.3.2.1) and in this regard, career counselling should be an integral component of the post-school education and

training system (DHET, 2013a:18). Improved career guidance at college level is envisaged to ensure that the students are able to make appropriate learning choices and career decisions. This will complement career guidance at school level, as well as that offered through the career guidance initiatives of the DHET and other bodies (DHET, 2013a) and may encourage more students to enter TVET as a route to meaningful employment.

3.10.7 Prospects

The prospect of a viable TVET college sub-system is among the highest priorities of the DHET. In its pipeline are plans to re-establish a good artisan system with an estimated headcount of 30 000 artisans a year by 2030, and to expand other forms of on-the-job training, including learnerships and internships in non-artisan fields (DHET, 2013a). Based on the mandate of the TVET colleges to address the imbalances of the past, the DHET intends intensifying leadership development interventions at council and management levels. College Council needs to have a fuller grasp of the new role of and the expectancy the whole country has of TVET colleges to prepare a well-educated citizenry. To this regard the DHET promises to provide capacity-building programmes for college council to ensure that council understands the broader vision of the DHET, and play the role efficiently and with confidence.

Also, the DHET intends to put in place human resource managers at every college to facilitate the development of the staff in its entirety (DHET, 2013a). The DHET plans to provide TVET colleges with up-to-date information technology capacity to enhance administration and management functions. Subsequently, the Academic Boards of colleges would be strengthened to enable them to provide the necessary academic leadership to improve the quality of programmes offered at each college (DHET, 2013a).

3.11 CONCLUSION

In this chapter an overview of the provision of TVET in South Africa was provided in an attempt to elucidate the components and functioning of the system and the important role that is intended for the TVET college to play in the broader education landscape and in the nation's economy. This background informs the empirical inquiry. Chapter 4 describes the research design of the empirical inquiry.

CHAPTER 4
THE RESEARCH DESIGN

4.1 INTRODUCTION

This study examines the experiences of lecturers in a selected TVET college in Gauteng Province, South Africa with regard to the implementation of the NC (V) curriculum.

In this chapter the researcher describes the research design that best fits the purpose to answer the question and sub-questions posed in Chapter One. A qualitative research design was selected as a methodology that will elicit detailed responses from the participants from their own points of view (McMillan & Schumacher, 2010). First the rationale behind the choice of the research approach is expounded and thereafter the selection of the site, the selection and recruitment of the participants and the strategies of data-gathering and data-analysis are presented, as well as the steps taken to ensure the credibility of the data and the ethical considerations.

4.2 THE RESEARCH APPROACH

I opted for a qualitative approach to explore how TVET college lecturers have experienced the implementation of the NC (V) since 2007. This approach suits the interpretive theoretical framework that underpins this research. An "interpretive research is fundamentally concerned with meaning and it seeks to understand social members' definition of situations", (Henning *et al.*, 2004: 21). In this study an interpretive framework allowed the lecturers to define their situations and encouraged them to produce descriptive analyses that emphasise a deep interpretive understanding of their experiences of the implementation of the NC (V) (Henning *et al.*, 2004; Walsham, 2006). I argued that this approach allowed me the opportunity to ascertain "whether the 'voice of the teacher' is heard or consulted, or whether it remains a 'voice in the wilderness' " (cf. 1.1; Carl, 2005:223). Furthermore, this approach has the potential to "articulate a model for how [implementing agents] construct understandings of the policy message, construct an interpretation of their own practice in light of the message, and draw conclusions about potential changes in their practice as a result"(Spillane *et al.*, 2002:392).

A qualitative approach also provides more insight into the subtle contextual dynamics. In addition, since it is subjective in nature, a qualitative research methodology tends to focus on intangible aspects of research. In this study the focus was on the perceptions and attitudes as well as the values which the participants held in respect of the implementation of the NC (V). Furthermore, the approach accorded me a choice of a case study research design that allowed for the subjective experiences and perceptions of FET college lecturers to be expressed and interpreted in their campus (Henning *et al.,* 2004).

A case study design undergirded by an interpretive theoretical framework necessitated that I interact with the participants on a personal level. Being the main research instrument, I could either enhance or inhibit the participants' free interaction with the issues at stake. Therefore, I took the aspect of reflexivity into consideration to allay the contamination of the data-collection and the potential to infringe upon the participants' human rights. Hence, ethical considerations became imperative throughout the study largely due to the influence I could bring to the research process (Kuper *et al*., 2008). Subsequently, in an attempt to access information from the participants, I assured them of confidentiality and their anonymity at all times by protecting the identity of participants through the use of pseudonyms and the removal of any specific information that could lead to them being identified (Kuper *et al.*, 2008). This I did to be consistent with the philosophical assumption of this research that FET college lecturers, as well as policy-makers and education managers, are central to a discussion of the curriculum and its effects in practice; that they were to participate actively in all the stages of curriculum development from its initiation to its evaluation and review. This is necessary for the effective implementation of a curriculum (cf. Finch & Crunkilton, 1999; Chapter 2).

In this study I argue, therefore, that a case study has the propensity to bring to the fore wide-ranging insights regarding the lecturers' experiences in implementing the NC (V). I concur with McMillan and Schumacher (2010:317) that in a case study design, "the researcher investigates in-depth small, distinct groups . . . in which there is a socio-cultural boundary and face-to-face interaction encompassing the person or group." By locating the study within its natural setting - the environs of the campus together with the lecturers as actual implementing agents, the case study allowed me to explore the lecturers' experiences through a variety of lenses (Cohen, Manion & Morrison, 2000; Baxter & Jack, 2008). The multiple lenses produced by the different participants' points of view revealed multiple facets of meanings and perceptions of the

implementation of the curriculum held by the different participants (Baxter & Jack, 2008). A case study using qualitative data gathering allowed an in-depth description of challenges the lecturers encountered in their day-to-day practice implementing the NC (V).

4.3 THE ROLE OF THE RESEARCHER

An important role of the researcher is to provide a clear explanation of the purpose of the study and what its ideal outcome would be. Kuper *et al.* (2008:406) argue that qualitative researchers need to identify their own contexts so that they understand how their own views and beliefs may influence the interactions they have with their participants. Therefore, as the main instrument of research, I played a significant role.

I currently hold the position of administrative and liaison support officer in the College of Graduate Studies, University of South Africa. I have had a brief spell teaching (April 2010 to December 2010) in the FET college which forms the focus of this study (cf. par.4.4 below). This inspired my interest in the current study and also introduced me to the NC (V) curriculum and the functioning of the FET college system. In qualitative research there needs to be rapport between the researcher and the participants in order to earn their trust and confidence. As a lecturer at the college some of the participants were my former colleagues or my supervisors or managers. This helped me to foster an empathetic and sensitive relationship with my participants, and together with the literature review (chapters 2 and 3) guided the development of the interview guides (Appendices G & H). I affirmed the participants as important and invaluable contributors to this study by respecting their responses without being judgmental in respect of whatever responses they gave (Patton & Cochran, 2002). A key issue that I reminded myself of was that "a research interview [was] not a clinical interview or an interrogation" (Patton & Cochran 2002:14); that the aim was to be as non-judgemental as possible and not to prejudice participants to give particular answers (Patton & Cochran, 2002). Thus, honing my listening skills was crucial for me to fully attend to what the participants conveyed without tainting the information.

Throughout the research I maintained an informal and cordial approach. The participants had the opportunity to respond more elaborately and in greater detail in a relaxed atmosphere. In turn, I had the opportunity to respond immediately, though circumspectly, to what they were

saying without swaying their responses to my advantage. There is a tendency to be biased in both respects. I therefore strove towards maintaining rigor throughout the data-collection process to get the best out of these interactions for the result of this research to be credible.

Also, as a woman researcher I dressed modestly but appropriately for the interview sessions. Wearing expensive jewellery and clothes could be intimidating; likewise, a scruffy appearance could elicit disrespect (Patton & Cochran, 2002).

4.4 THE RESEARCH DESIGN

4.4.1 Selection of the site

The site of this study was Tshwane South College (TSC), Odi campus. TSC is one of the eight multi-site TVET colleges located in the Gauteng Province. The site was selected by means of a combination of purposive and convenience sampling. Purposive sampling, also known as 'judgement sampling', aims at locating information-rich individuals or cases, that is, those persons who are likely to be knowledgeable and informative about the phenomena under investigation (Johnson & Christensen, 2000; Matea, 2014. Thus, I selected the site because it comprised potential participants who had defining characteristics that made them holders of data that would address the research questions (Creswell, Klassen, Plano Clark & Smith, 2011), namely experience of the implementation of the NC(V) curriculum at a TVET College. Furthermore, Odi campus illustrates many of the incisive changes which FET institutions incurred as a result of the transformation of the FET sector during the periods of reconstruction and of early critique (Powell 2013; par. 1.1). TSC, Odi campus evolved from one of the former Bophuthatswana Homeland Manpower Centers that offered technical and vocational education and training prior to 1994 (Tshwane South TVET College, 2015). The pre-1994 administration of the Odi Manpower Centre fell under the auspices of the Department of Labour (DoL) and examinations fell under the jurisdiction of the former Department of Education and Training (DET). As a Manpower Centre, Odi provided both intense skills-training (i.e., hairdressing, plumbing, and bricklaying) and technical subjects (the NATED courses) (Tshwane South TVET College, 2015). In 2002, during the period of reconstruction (Powell, 2013; par. 1.1), the Rustenburg and Brits Technical Colleges, which had formerly provided only technical classes, merged with the former homeland Manpower Centers, Odi and Temba, under the

administration of the North-West Province. Thus, the merged institutions (Rustenburg Technical College, Brits Technical College and Temba and Odi Manpower Centers) became a multi-site FET college: the Orbit FET College. Orbit is an acronym for Odi, Rustenburg, Brits and Temba campuses; the 'I' in Orbit stands for 'Institution' (Tshwane South TVET College, 2015). During the period of early critique (Powell 2013; par.1.1), in 2006, the Odi campus was transferred from the multi-site Orbit FET College to the multi-site TSC due to the provincial border demarcations (Tshwane South TVET College, 2015). The TSC itself evolved as a result of the merger of the three campuses, namely Atteridgeville, Centurion and Pretoria West (RSA, 2001). Today TSC comprises four campuses, namely Atteridgeville, Centurion, Odi, and Pretoria West. The Odi campus offers seven of the fourteen NC(V) programmes: Civil Engineering and Building Construction, Electrical Infrastructure and Construction, Engineering and Related Design, Hospitality, Marketing Management, Office Administration, and Tourism (Tshwane South TVET College, 2015). This complex history makes the Odi campus a very rich source of data for this study.

Finally, the convenience of Odi campus as my research site was determined by its proximity to my home and my workplace which made the gathering of data both possible and cost-effective. Moreover, as mentioned in paragraph 4.3, I had briefly worked at TSC, Odi campus as a lecturer and had access to the gatekeepers who facilitated my entry into the field.

4.4.2 Selection of the participants

The staff at the TSC, Odi campus comprises of 95 members, both academic and administrative. Twelve participants were selected from the academic component of the college by purposeful sampling, which was based on the presumption that they would generate useful, information-rich data for the study (Patton & Cochran, 2002). The participants embodied specific characteristics that were integral towards addressing the research question (Patton & Cochran, 2002), in this case, all participants had in-depth experience of the implementation of the NC (V) in a TVET College. To identify and recruit suitable participants, I solicited the help of the gatekeepers, that is, the campus manager and his deputy, who helped to identify lecturers who would be willing to participate in the study. A *gatekeeper* may be described as a person who can grant access to a site, facilitate contact with possible participants, and authorise the research role of the researcher (McMillan & Schumacher 2010; Patton & Cochran, 2002).

The sample was comprised as follows: seven full-time lecturers, four Divisional Heads with lecturing and co-ordination responsibilities, and the campus manager. The campus manager is tasked with ensuring compliance with all the relevant policies including the curriculum implementation of the NC (V) (Tshwane South TVET College, 2015).

Table 4.1 below summarises the characteristics of the participants.

Table 4.1: Characteristics of the participants

Characteristics of the lecturer participants							
Pseudonym	**Gender**	**Age**	**Designation**	**Department /division**	**Years TVET experience**	**Years of experience at campus**	**Qualifications**
Moagi	M	60	Senior lecturer	Engineering and Related Studies	30	10	Bachelor of Education Honours (B.Ed.Hons.) in Education Management; Bachelor of Arts in Education (B.A. Ed.)
Kaelo	M	57	Senior lecturer	Engineering and Related Studies	27	26	Higher Diploma ABET; Higher Certificate ABET; N3, Artisan in Upholstery.
Mokgadi	F	47	Senior lecturer	Business Studies	19	15	B.Ed. Hons. in Curriculum & Instructional Design & Development; Secondary Education Diploma (S.E.D.).
Mduduzi	M	60	Senior Lecturer	Engineering and Related Studies	32	30	Trade Training Certificate; Trade Teacher's Certificate.
Nkanyezi	F	60	Senior Lecturer	General Studies: Hospitality Section	20	20	Bachelor in Technology (B.Tech.); Higher Education Diploma (H.E.D.);

							Scondary Education Diploma (S.E.D.).
Lerato	F	34	Lecturer	General Studies: Tourism Section	10	7	Diploma in Tourism Management.
Sipho	M	46	Senior lecturer	Workshops	23	15	B.Tech; National Technical Diploma; Human Resource Diploma.
Campus Manager and Divisional Heads							
***Pseudonym**	**Gender**	**Age range**	**Designation**	**Department/Division**	**Years TVET experience**	**Years of experience at campus**	**Qualification**
Mogapi	M	41-50	Campus Manager	Not applicable	18 years	4 years	Higher Diploma in Tertiary Education and Training.
Malebo	F	38	Divisional Head	Undisclosed to meet participant preference	12 years	3 years	3 year Diploma: Finance; 3 year Diploma: Marketing.
Maselo	F	42	Divisional Head	Undisclosed to meet participant preference	15 years	15 years	B.Tech.
Tlotlano	M	54	Divisional Head	Undisclosed to meet participant preference	3 years	3 years	N.A.S.; H.D.E.; A.C.E.
Bahle	M	52	Divisional Head	Undisclosed to meet participant preference	8 years	3 years	B.Ed.Hons.(Education Management).

According to Table 4.1, seven of the participants were male and five female. The participants' teaching experience in TVET ranged from 32 to 3 years. Seven of the twelve participants had 15 or more years' experience. This indicates a group with in-depth experience of TVET as well as experience of the three critical periods in TVET transformation according to Powell (2013): the periods of reconstruction, early critique and the new moment. The participants' experience at Odi ranged from 30 to 3 years. Seven of the participants had at least 15 years and more experience at Odi (inclusive of its earlier history as a Manpower Centre, as a campus in the Orbit College and its current status). These experiences make the participants particularly information-rich sources. Three of the participants held a B.Ed. Honours degree, one with specialization in Curriculum Studies, and two with specialization in Educational Management. Three held a B.Tech. degree, and one held a Higher Diploma (ABET) and one a Higher Diploma in Tertiary Education and Training. Three participants held diplomas, namely one in Tourism Management, and one in Education, and one held two diplomas, namely in Marketing and in Finance. One participant held a certificate in Trade Training. Thus, six participants held dedicated FET qualifications. The Divisional Heads requested that their subject divisions not be disclosed as this could lead to their identification. Pseudonyms were used to indicate the participants, and thus preserved confidentiality.

4.4.3 Data-gathering

The data were gathered by means of the qualitative interviewing of the participants, using in-depth semi-structured individual interviews (cf.4.4.2.1) and focus group interviews (cf.4.4.2.2) (Cohen *et al.*, 2002; Walsham, 2006; Baxter & Jack, 2008; Kuper *et al.*, 2008). Walsham (2006:323) posits that interviews are "part of most interpretive studies as a key way of accessing the interpretations of informants in the field".

A *semi-structured interview* is defined as an interview guided by a flexible interview guide, and that is held in an informal, natural context. Thus, the topics for discussion are selected prior to the interview, but the researcher may modify the wording or the sequence of open-ended questions during the interview and use probing questions to clarify or elicit additional information (McMillan

& Schumacher, 2010). Nieuwenhuis (2007a) concurs that an interview guide does not limit the participants to a set of predetermined questions. Semi-structured questions are flexible, the sequence may be changed and they allow both the interviewer and interviewees opportunities to probe deeper and to seek clarification on answers and questions. This creates an atmosphere that is not threatening to the interviewee and is conducive for clarification and elaboration. A *focus group interview* is a guided or unguided group discussion, usually consisting of four to eight members, where particular issues or topics of interest to the group and to the researcher are addressed. It is the purposeful use of interaction in order to generate data on a designated topic (McLafferty, 2004). Focus group interviews are very useful for identifying the range of ideas, concerns and feelings that people have; that focus groups interviews are used to get a sense of the sort of things that concerns people, which they talk about, prefer, and/or dislike (McLafferty, 2004).

4.4.3.1 Individual in-depth interviews

The seven lecturer participants and the campus manager participated in individual interviews by making use of a flexible interview guide, as defined above (cf. Appendix E). After the names of the suitable lecturer participants were suggested by the gatekeepers, I contacted each participant personally to invite him or her to engage in an individual interview at a convenient time and place. The interviews took place in an office on the Odi campus. The setting of the interviews was therefore not contrived or unnatural; it accorded the participants enough privacy to feel comfortable and to respond honestly to the questions posed. Patton and Cochran (2002) argue that the place where interviews are conducted has an impact on the answers that the researcher will get. The familiarity of the setting created an environment that made the participants feel in control of the conversation; thus, I could deal with emergent complex and sensitive issues. The interview sessions were scheduled according to the times that suited the lecturers in order to avoid the disruption of their primary responsibilities. Before the interview commenced I explained the aim of the study and the conditions of the interview. Each participant was given an invitation letter with a consent form attached to it for their endorsement (cf. Appendices C and D) and which

assured them of confidentiality, privacy and the right to withdraw from the interviews at any stage. The interviews lasted between 30-45 minutes and were conducted in English.

Open-ended questions (cf. Appendix E and F) probes and sensitively placed pauses (McMillan & Schumacher, 2010) were used to solicit in-depth information as well as to follow-up on issues which participant responses raised. An atmosphere of camaraderie prevailed precipitated by direct contact inherent in face-to-face interviews. The interviews were recorded using a digital recorder. The recorder accorded me a truer record of the interview and minimised delays that the writing of responses may have caused (Walsham, 2006). However, I also took notes to complement the recorded data (McMillan & Schumacher, 2010). The interview with the campus manager took place in the privacy of his office.

4.4.3.2 Focus group interviews

Two focus-group interviews were conducted with the Divisional Heads. My quest in using focus group interviews with them was to extract their specialised understanding of the issues inherent in curriculum implementation in general (McLafferty, 2004) as well as to understand, in particular, how they themselves experienced the implementation of the NC (V) curriculum and their perceptions of opportunities and difficulties which they and the lecturers may have faced in the teaching and learning situation (McLafferty, 2004). The emphasis was on obtaining their insight by means of their experiences and opinions on the topic, and not necessarily on reaching consensus among the participants.

Due to the responsibilities and the work schedule of the Divisional Heads I met each one of them individually in their offices to introduce myself and to brief them on the study. I explained the purpose of the study, my role as researcher, the role of the assistant scribe who assisted with note-taking during the focus group interview session and the participants' expected roles, the interview conditions, the provision of their privacy, confidentiality and their right to withdraw. The assistant scribe was a lecturer at the College of Education, Unisa. She entered into a confidentiality agreement regarding her task to take notes of the interview. After reaching consensus with each

participant to get informed consent on these aspects, I gave the individual an invitation letter with the attached consent form to read and to endorse (cf. Appendices G & H). Miller and Bell (2002) attest that of importance in conducting focus group interviews is the strict adherence to ethical issues with a view to respect the participants, their right of privacy, and confidentiality of the information they give.

The first focus group interview session with the Divisional Heads was audio-recorded and was conducted according to a flexible focus group guide, as indicated above (cf. Appendix F). The interview was conducted in the campus boardroom where participants normally held their management meetings, thus creating a comfortable and relaxed atmosphere in a familiar and non-threatening setting which was also free from interruptions and private. I conducted the focus group interview while the assistant took down notes. The focus group interview lasted approximately 60 to 90 minutes. I started off the discussion with general welcoming note and thanked participants for agreeing to participate in the session. I then asked the questions guided by the schedule guide. I asked probing questions were necessary to seek additional information, to clarify issues and to stimulate a lively discussion. The nature of the questions was non-threatening and was aimed at encouraging participation from all the participants. At all times I endeavoured to maintain a non-interfering stance, except when seeking the clarification of responses.

The focus group interview followed the natural course of a group discussion. At times one participant aired an opinion, at other times a specific participant remained thoughtful, and even cautious, and took time to make a contribution. To encourage ongoing participation, I adapted my interview guide when necessary to stimulate conversation, as is typical when using a flexible interview guide (McMillan & Schumacher, 2010). I also noted moments of tension, turf-guarding and dominance by some participants which occurred at times. Heightened emotions ensued at times when a participant hotly pursued a point in an attempt to explain or clarify meaning, that is, to position a point of view. Nonetheless, the individual voices of dissent were not silenced (McLafferty, 2004). Amidst these vigorous and spontaneous expressions of ideas, rich and insightful points of view were shared without prejudice (McLafferty, 2004; Cohen *et al.*, 2002). Overall the focus group interviews provided detailed data and were much more successful than I

had initially anticipated. In general the participants were eager to share their experiences of the implementation of the curriculum from their particular positions as Divisional Heads, their perceptions of the lecturers in their supervisory role and their own experiences and the impact of curriculum change on the day-to-day performance of their duties. Additionally, the focus group interviews generated a broad overview of issues of concern regarding TVET transformation, thus providing major insights into what they perceived the roles of DHET in particular and attitudes, beliefs and opinions about the transformation and provision of TVET in South Africa (Wedekind, 2008; Powell, 2013; Powell & McGrath, 2014).

The second focus group interview with the Divisional Heads was held in the same venue after the transcription of the first interview was made and the preliminary data-analysis had taken place. This focus group interview assumed the nature of a debriefing session and was aimed at member-checking to ensure that the participants' inputs were captured accurately, to give feedback on the findings, and to elicit their views on the preliminary findings. This session lasted 45 minutes. I first gave each participant a copy of the transcription and allowed them to check its accuracy. Thus the participants were allowed to review, clarify, confirm or alter the findings where necessary. A lively discussion again ensued, and on this occasion I made field notes of the discussion to complement the data gathered during the first focus group interview.

4.4.4 Data-analysis

According to Baxter and Jack (2008), in a qualitative study the collection and analysis of the data occur concurrently. The first basic stage in data-analysis comprises transcribing the data from the recordings (Patton & Cochran, 2002). With regard to the individual interviews, after listening to the recording, I transcribed the recorded data verbatim. I began this task immediately after the first interview and continued to listen to the recordings at the end of the interviews for the day throughout the gathering of the data. After the transcription was made I checked it word-for-word against the recording to ensure accuracy and consulted the field notes. I gave the interview transcripts to each participant in the individual interviews for verification and clarification and also for the sake of any alterations or additions if necessary. This allowed the participants to see

themselves as invaluable contributors of knowledge towards the advancement of curriculum improvement. The transparency with which the transcripts were handled affirmed the participants as co-agents in the research process (Chilesa & Ntseane, 2010). Although this process was costly with regard to time and travelling expenses back and forth to meet with participants a second time, this enhanced the analysis of the data. The process of data-handling after the focus groups interviews followed a similar process as with the individual interviews. In this case after each session, I immediately made a written summary of the focus group interviews and the notes of my perceptions and observations during the sessions. I then transcribed the recording of the first focus interview verbatim and checked the transcription against the recording. Thereafter, I scrutinised and reflected upon the notes taken by the assistant during the first focus group interview to compare it with the transcripts and to expand my own notes. In the case of the second focus group interview, I scrutinised and reflected on my notes and expanded the summary made immediately after the occasion. As mentioned in 4.4.2.2 above, the transcript of the first focus group interview was returned to all the participants for member-checking. This process of listening, summarising, transcribing and extensive member-checking gave me a very good sense of the whole data set (McMillan & Schumacher 2010).

After the initial listening to each recording, I read and re-read the transcripts, the summaries and the field notes and my personal reflections. The next stage of the analysis commenced with coding as I began to identify possible codes in the data. I made a list of the initial codes and developed a coding scheme (Patton & Cochran, 2002) by numbering codes. Each broad code had a number of sub-codes. Then I applied these provisional codes to the whole set of data by writing the codes in the margins of the transcripts and making notes in the margins. I revisited and refined the coding scheme as I went through the whole data set several times in detail. This I did to ensure that "the analysis does not just concentrate on the atypical or 'exotic' extracts of data, and is a truly comprehensive analysis" (Patton & Cochran, 2002:24). When all the transcribed data were coded, I began to group related codes into themes (sometimes called 'categories') (McMillan & Schumacher, 2010) to and identify discrepant cases. I cut and pasted possible rich data in the form of quotations or excerpts from the transcripts which could be used to illustrate themes (Patton & Cochran, 2002). At this point I extracted the rich data out of their original text and put them

together with other examples of rich data on the same topic to start substantiating emerging themes that recurred across the data set (Patton & Cochran, 2002). To overcome losing data, I reread some transcripts in detail to see how these extracts interrelate in a particular transcript (Patton & Cochran, 2002). Memo-writing (i.e., short detailed insights and comments on incidents and linkages and possible references to the literature reviewed) accompanied the entire process of analysis (Charmaz, 2010). The themes form the basis of the research report (cf. chapter 5). After writing the preliminary research report I sought expert peer review by submitting the report for scrutiny to my supervisor. Upon receiving her feedback, I again returned to, refined and expanded the discussion of the findings to form the final report (cf. Chapter 5).

In conclusion, I broadly followed the five key stages of data analysis espoused by Richie and Spencer (1994) as outlined by McLafferty (2004). The stages are, namely familiarisation with the data, identifying a coding framework, indexing codes, charting the themes, mapping and interpreting the findings (McLafferty, 2004).

4.5 TRUSTWORTHINESS OF THE STUDY

Despite the relatively unstructured form in which the qualitative data were collected, it still remains important to ensure that the data analysis is reliable and valid. In qualitative research reliability and validity are referred to as *trustworthiness* and *credibility*. Both the researchers and the users of the research findings - internal and external - can be confident that the research reflects what it set out to do (Shenton, 2004).

In order to reinforce the trustworthiness I followed four criteria identified by Guba (1981) and explained also by Shenton (2004:70), namely credibility, transferability, dependability, and confirmability.

Firstly, to ensure credibility, which broadly deals with the issue of the congruence of the findings with reality, I did the following, according to the recommendations made by Shenton (2004:64-66). I adopted qualitative research methods and a trustworthy and well thought-through case study

design (cf. 4.4). I developed familiarity with the context of the participating organisation, a TVET college, by conducting the thorough literature review of the TVET sector (chapters 1 and 3) and by my previous work experience in a TVET college (cf. 4.3). I built a trusting and transparent relationship with the participants through individual meetings with each participant prior to, during and after the interviews when the transcripts were returned to the participants to be checked (cf. 4.4.3). I collected data consistently during the fieldwork and documented the experiences of each participant. The use of probing techniques and the natural environment of the research (cf. 4.4.3). The audio-recorded data helped me in cross-checking participants' responses, adding to the credibility of the research findings (Huberman &Miles, 1994). I did member-checking, whereby the transcripts and preliminary findings were shared with the participants. This involved giving participants' feedback of my interpretation and analysis of their responses to ascertain if my assessment of the findings reflected the issues from their perspectives. In the case of the participants in the focus group interviews I held a second interview with them for this purpose (par.4.4.3.2; 4.4.4). In the case of the lecturer participants I made appointments to visit them individually to return the transcripts to be checked and for clarification (cf. 4.4.3.1; 4.4.4). Furthermore, I sought expert peer-checking by submitting the preliminary and final findings to my supervisor for her scrutiny and input (cf.4.4.4). I also described my role as researcher to all the participants (cf. 4.3). I substantiated the final research report with data in the form of verbatim quotations from the interviews (cf. Chapter 5).

To enhance transferability, that is the extent to which the findings can be safely transferred to similar contexts as the campus where I conducted the research (Shenton, 2004), I provided a concise but detailed description of the history and context of Tshwane South College, Odi campus (cf. 4.4.1), and I provided a short profile of each of the participants (cf. Table 4.1). This detailed description of the site and the participants may allow a critical comparison to be made with other TVET institutions and their academic staff who may share similar features.

To address dependability, that is, the endeavour to show that if the work was repeated in a similar context, similar results would be obtained (Shenton, 2004:71), I did the following: both in this chapter and in the synopsis of the research design in Chapter 1 (cf. 1.6), I have provided a detailed

description of the research design and the process of the research to allow other researchers to repeat the study if so desired.

Finally, to meet the criterion of confirmability, that is, the endeavour to ensure that the research is as far as possible representative of the views and experiences of the participants and not of the researcher, (Shenton, 2004:72) I did the following. I described clearly my own researcher role and my interest in the research topic (cf. 4.3), I acknowledged the limitations of the research project (cf.4.5.1), and I made use of triangulation (Brown, 2001), which entailed deliberately seeking evidence from a wide range of sources and comparing the findings from those different sources (Patton & Cochran, 2002). I accomplished this by means of various reviews of the literature (journals, books and curriculum policy documents on curriculum development and implementation), as indicated in chapters two and three. The literature informed both my interview guides as well as the interpretation of the data. The number of interviewees (par.4.4.2), as well as the different positions they occupied in the TSC, Odi campus, allowed me to gather a variety of perspectives on the research topic. These enabled me not only to compare the findings from each source of information, but it also gave me a more balanced perception of the study (Altrichter, Feldman, Posch & Somekh, 2008).

4.6 LIMITATIONS OF THE RESEARCH

The particularity of this study, however, must be acknowledged as a limitation. The study examines a particular TVET college context and a small sample of participants who had unique experiences lecturing in this environment during a certain period of time. As in all qualitative research, no claims are made to the generalised applicability of the research findings, that is, "the degree to which findings can be transferred and generalised to other populations and settings, (Krefting, 1991:216). However, the precise audit trail given above in the research design (par. 4.4.) may be useful to another researcher who wishes to conduct a similar study in other TVET colleges in South Africa. In this regard it is possible that certain findings emanating from this study may have limited transferability. Kuper *et al*. (2008:406) argue that "the findings of a qualitative study

are also not intended to be generalised…they may, however, be transferable to other contexts, and readers can assess their applicability to their own settings."

4.7 ETHICAL CONSIDERATIONS

As a researcher I was conscious of my responsibilities towards the research participants, the institutions they represent and my own institution. Therefore, prior to undertaking this study I obtained written permission to conduct research at one of the TVET in the Gauteng Province from:

a) the College of Education Ethics Committee, University of South Africa **(**cf. Appendix A);

b) the Department of Higher Education and Training **(**cf. Appendix B); and

c) the participants (cf. Appendices C and D).

During the briefing sessions I held with the participants prior to the commencement of the interviews, I acknowledged the participants as autonomous individuals with rights that they could exercise at any stage of the study; namely that should they desire to withdraw their participation from the study, they could do so without fear of intimidation (Cohen *et al,*, 2002; Kuper *et al.*, 2006; Brewer, 2007; Baxter & Jack, 2008). Also, I explained the benefits of their participation as voluntary participants in this research, and that the study would not cause any harm to their persons or professions (Patton & Cochran, 2002).

Each individual participant freely consented to participate and indicated in the invitation letter through signing an acknowledgement of consent. Field-notes, digital recordings and transcriptions were kept on a password-locked computer in my office for the duration of the study and will remain stored in this way for a period of two years. The data generated was only to be used for the purposes of this study. All the participants were identified in the discussions of the findings by means of pseudonyms. A final electronic summary of the research would be made available to all the participants upon the successful examination of the dissertation. On request, a presentation of the

findings would be made to the campus management and the interested participants after the examination of the dissertation.

4.8 CONCLUSION

In this chapter the researcher discussed the research approach, sampling, data-gathering and the analysis of the data. Measures to enhance credibility and trustworthiness as well as measures taken to meet the ethical requirements were also explained.

The presentation of the findings will be done in chapter 5.

CHAPTER 5
PRESENTATION OF THE FINDINGS

5.1 INTRODUCTION

This chapter presents the findings of the analysis of the qualitative data collected at the selected FETC. The findings are presented using thematic analysis in a narrative form.

5.2 THE FINDINGS

The nine themes that emanated from the participants' responses are the following, namely limited lecturer participation in curriculum design, the effectiveness of curriculum dissemination, the participation of the lecturers in the review of the curriculum, the lecturers' perceptions of the NC (V) entry level requirements, the NC (V)'s positioning on the NQF, assessment in the NC (V), the fit between the lecturers' qualifications and the NC (V) curriculum, capacity-building of the lecturers, and the lecturers' perceptions of the involvement of the industry in the NC (V). The themes are supported by rich data, that is, the verbatim quotations from the interviews. In the case of each quotation, I have indicated the job status of the Divisional Heads to distinguish them from the lecturer participants. As mentioned already, the Divisional Heads engaged in focus group interviews; the lecturers engaged in individual interviews (cf. 4.4.3.1 and 4.4.3.2; Table 4.1).

5.2.1 Limited lecturer-participation in curriculum design

The question can be raised as to the participation of the TVET college lecturers in the design of the NC (V) (cf. 2.3). According to Carl (2009), the lecturers should actively participate in all the stages of curriculum design and development from its initiation to the evaluation or review (cf. 2.3).

Several lecturers felt that their participation in the design of the NC (V) curriculum was minimal. They saw the NC (V) as an imposition from the authorities – a top-down approach to curriculum

design - to familiarise lecturers with the NC (V) programmes (Shawer, 2010; Gvirtz and Beech, 2004; cf. par 2.2.2.1). Nkanyezi, senior lecturer in General Studies, stressed the top-down approach as follows,

> *I do not think college lecturers played a role; programmes just came from the Department.*

Moagi, senior lecturer in Engineering-related Studies with 30 years of TVET experience, concurred that the NC (V) was

> *… something that came from the Department*.

Kaelo, senior lecturer in Engineering and Related Studies, who has both lengthy experience in TVET and whose qualifications directly relate to TVET (i.e., N3), said,

> *The only role that I am aware of is the implementation of NC (V) programmes. I do not know of lecturers who were involved in the making of the programmes.*

Sipho, senior lecturer in Engineering-related Studies, agreed and further explained that the lecturers' role had been limited to minor decision-making regarding the selection but not the design of the teaching materials (cf. Finch & Crunkilton, 1999:207). He indicated,

> *The only role that lecturers played in the design was the selection of relevant materials. Programmes were developed by outsourced agents of the Department of Education. I would say lecturers were given the curriculum and were to compare each book from different providers to see which one covered most of the outcomes of the curriculum. Lecturers, as far as I can remember, were <u>never</u> part of the design and development of NC (V) programmes.*

Bahle, the Divisional Head, agreed that consultation with the colleges during curriculum design in general was "*very low*". Nonetheless, he appreciated the role of experts, such as academics and curriculum designers in the Department, but indicated that experts should at least liaise with the lecturers. He explained:

> *The Department will consult the academics to look into the design and, of course, you cannot involve everybody when you develop a curriculum. Authors will ensure that a curriculum is developed by the experts, of course, those ones should liaise with the lecturers to get information but not necessarily involve them in the process.*

He furthermore felt the lack of participation in curriculum design should not be a stumbling block to lecturers who should still be sufficiently equipped to implement the curriculum according to the extensive stipulations of the curriculum documents.

> *There is no lecturer who will say he/she does not understand some of the contents of the NC (V) material or does not know that because one was not involved in the curriculum design or development. A curriculum is standardised, it includes all the necessities that the students may need after acquiring NC (V) level 4 to have enough skills at workplace and at the same time, have enough academic learning to enhance and to help the students perform better in the workplace.*

The participants felt that their role in the design of the NC(V) programmes was limited to attendance of the workshops. Mokgadi, senior lecturer in General Studies, was specific about the limited role of the lecturers in terms of workshop attendance.

> *I do not know whether attending a workshop would be regarded as a role in curriculum design."*

To demonstrate her point, she gave a synopsis of what transpired in the workshops.

> *We were taken to a workshop or training but there, what they did was to show us the programme of Marketing - that in terms of NC (V) level 2, for example, this would be the content of the material that would be taught. We were also supposed to make inputs with regard to whether this was suitable for level 2 or was it too high or the standard high or what.*

The participants indicated that they attended the workshops and that the workshops were content-orientated, what Mduduzi, senior lecturer with more than 30 years' experience in TVET, termed being

> "*…workshopped according to our trades"*.

He did not regard this as playing a role in the design of the NC (V) programmes.

Sipho emphasised the predominantly superficial nature of the workshops.

> *Most of the lecturers do not have a teacher qualification, so these programmes are meant to give lecturers a quick training on presentation method and assessment skills not on designing a programme.*

Nkanyezi was also of the opinion that the lecturers could be roped into curriculum design through the involvement of teacher professional associations such as the teacher unions. But this view was not acceptable to the other participants. Moagi stated that the unions are already involved in the processes of curriculum design, but this is not a positive practice. He explained:

> *It was unfortunate that the Department would listen to the voice of the union,* [because] *people are in unions for different reasons, for bargaining and for whatever. In as far as issues like these* [curriculum design and development]

> *are concerned, they may not really know or they may not be thinking about it. Some people come there* [to union conferences] *to listen to what the Minister has got to say.*

Other participants felt that lecturer participation in curriculum design is not feasible due to the diverse qualifications lecturers at TVET colleges held, and the considerable numbers of lecturers at the colleges who were either under- or unqualified. In particular, Moagi felt that most of the lecturers did not have the conceptual insight needed for curriculum design. He remarked:

> *The Department would like to involve lecturers, but lecturers come there and look at curriculum as it is. Nobody thinks of bringing something new or saying let's drop this, you know. They look at it and say nothing* [shrug of shoulders]. *In most cases these people [lecturers] are more concerned about the assessment than the content of this.*

In the end, even the participants who were more positive about attending workshops and the platform they gave for participation agreed.

> *Lecturers were never part of the design and development of the NC (V).*

5.2.2 The effectiveness of the dissemination of the curriculum

McBeath (1997:1) defines *curriculum dissemination* as " the process of informing teachers [lecturers] about new or revised curriculum ideas, documents or materials, so that they understand and accept the innovation". She (1997:1) argues that "…curriculum dissemination . . . overlaps with orientation, adoption and implementation and can reach across a number of stages of the change process" and as a phase is "…one of the most neglected and least understood elements of the change process".

This viewpoint stresses the role of practitioners in curriculum dissemination. In the case of the introduction of the NC (V) in the TVET sector in South Africa, dissemination took place mainly through information-meetings or training workshops, newsletters, questionnaires and by building networks. These formed part of a cascade model of dissemination (Robinson, 2002). Workshops generally ranged from 3-days to 5 days in duration. This strategy embodied a cascade model of dissemination whereby "…a core of people who were trained in the new curriculum would then train district officials who in turn are expected to cascade the information to classroom-based teachers" (Robinson, 2002:295).

The participants voiced their concerns about this strategy, particularly with regard to the workshops on training. Kaelo agreed about the purpose of the workshops which were "…*intended to familiarise them to the broader curriculum*".

Sipho concurred that the purpose of the workshops was "…*to upgrade lecturer content knowledge*".

However, many comments were made about the effectiveness of this strategy. Sipho said:

> *This was just a quick 3 day to a week's workshop. Well, something* was achieved; *but whether it helped or not, I will not know. Not all lecturers know how to design or develop a curriculum. There should be a strategy on how and when to involve them in the design of a curriculum*.

Sipho called for more focused and intensive training for lecturers. He stated, "*Lecturers should undergo a tailored training in order for them to be familiarised with the programmes*".

Similarly, Moagi shrugged his shoulders and asked, "*What would a 3-day to a week-long workshop attain?*"

The implication of the above discussion is that the lecturers felt that the workshops were conducted specifically to disseminate the content of the NC (V) programmes (i.e., to fulfil an informative function) and to give the lecturers in certain programmes, such as Marketing, an opportunity to give their input on the suitability of the content for the Level 2 students [c.f. par.5.2.1]. Moagi explained:

> *People were taken to workshops about the content to familiarise them with not so much about the methodology for putting it across but about the subject content; if there were someone who was still lacking in knowledge, to upgrade them. Workshops were conducted on the content, basically.*

In no way were workshops intended to create a platform for critical response on the curriculum from the lecturers. Furthermore, no scope was given for lecturer input to be accommodated in ongoing curriculum improvement. The participants' responses clearly showed that the lecturers felt that the workshops were only designed to allow feedback on the suitability of the given content, its relevancy, adequacy and appropriateness to the intended NC (V) level 2, the infrastructural needs of the campuses, the suitability of the simulation rooms where practical training takes place, and on the human resources available on the campus. From the laughter and body language (e.g., the shrugging of the shoulders or throwing up of hands) I surmised that the issue was controversial: the participants did not want to state categorically that there was no involvement, but they mostly regarded the workshops as only symbolic consultation and a means for disseminating the curriculum content.

Furthermore, the workshops were held with selected lecturers who were expected to return to the college and give feedback to those lecturers who did not attend the workshops. Mokgadi explained:

> *When the NC (V) was implemented, we were firstly taken for training, although it was not <u>all</u> lecturers. It depended on the subject, for example, marketing.*

> *They will take one lecturer and he or she was expected to come back and take others through the course him- or herself.*

Mokgadi further explained that the workshops did not cover all the important issues, such as teaching approaches or the distinction between the new programme and the existing NATED programme. She said:

> *What happened was they will take a sample of lecturers, few lecturers or few subject experts, and they didn't make up, rather they didn't represent the population of lecturers, who might also have taken part in designing the NC (V) programme. Some of the trainers were lecturers from TVET colleges, whereby they will dwell into the content not even on the implementation, or the teaching process or the approach to the course: how to go about it; how different is it from NATED and all other courses. Lecturers had to find that in the class.*

As mentioned before, the above strategy comprised a cascade model of curriculum dissemination where selected lecturers attend a course with the expectation that they will give instructive feedback to the other staff members who remained behind. At the Odi campus senior lecturers from each course or subject (e.g., Business Studies: Marketing, mathematics, and hospitality, and from the engineering studies: Electrical Infrastructure, Mechanical and Civil Engineering) attended the workshop and were expected to give feedback as per the principle of a cascade model.

Nonetheless, Mokgadi indicated that the feedback sessions were not effective or beneficial for those lecturers who did not attend the workshops:

> *Feedback was not as formal as we expected; it was informal; just to say, no, we did this, and then it was not even in detail. So, one could deduce from the feedback that the training was not that fruitful for whomever went there, because they didn't come back with all the vigour and oomph, that no, we got*

so much information and then we are ready and eager to take this programme. No.

Some of the participants felt that the workshops were rushed and that there were no follow-up workshops to ensure that the attendees had acquired a full understanding of their changed roles as NC (V) implementers. Other participants felt the workshops were "*effective to some extent but not adequate*".

Doubts were raised about the short duration of the workshops and of what could be achieved from them. Moreover, the participants were unsure about the distinction between dissemination workshops and capacity-building workshops for professional development.

5.2.3 Lecturer-participation in curriculum-review

Powell and McGrath (2014) and Wedekind (2009) argue that the voices of TVET practitioners (lecturers and campus managers) who are daily responsible for implementing and teaching the curriculum should be heard in terms of evaluating all the aspects of the curriculum, namely relevance, complexity and articulation on the NQF. The DHET Minister, Dr. B. Nzimande (DHET, 2013b), in his budget speech 2012/13, said, "Of central importance to the improvement of the colleges is the revision of their programmes. We have just concluded a review of the National Certificate (Vocational)."

The lecturers felt that they could have played an important role in the evaluation or review phase of the NC (V) as a result of the teaching experience that they had accumulated since 2007. Sipho felt that the lecturers' opinions had not been accommodated in the review. He said,

Review was envisaged to take place after three years; that time has come and gone. The high drop out in the NC (V) programmes is the sign that these programmes are not achieving the goals and objectives they were first designed for."

Where the lecturers' opinions were sought, the Department had proved sluggish in heeding their recommendations. Moagi argued, "*There were a lot of voices from the teachers but seemingly the Department did not do much about it or anything."*

Nkanyezi hoped that in future reviews of the NC (V) or any further curriculum design for TVET, the lecturers should be given a greater say in the process. She said:

> *The Department should invite the lecturers because the lecturers are the ones who are in contact with the students for the whole day. The lecturers know they experience some difficulties especially with some other students. So, at least the Department should invite the lecturers when they start designing a new programme.*

Lerato, lecturer in General Studies with ten years' experience in TVET, felt that the lecturers could share in "…*designing practical learning experiences relevant to the particular vocational field*."

She further stated, "*Lecturers are able to judge what students know and can do as a result of outcomes-based assessment."*

Maselo, the Divisional Head, felt that in a review the lecturers could make valuable recommendations regarding the admission requirements of the students. The lecturers had considerable experience of the difficulties around different entry points as a result of their dealings with students who came to TVET from different general education streams at different entry points and with different aptitudes and needs (cf. par.5.2.4). Mduduzi pointed out that the lecturers already had experience of teaching the NC (V) during three cycles, and this provided invaluable insight into the strengths and weaknesses of the programme. He said,

> *From the previous experience of the NC (V), as we are speaking now, all the levels have been done more than twice. And, as such, lecturers, at the present*

> *moment have experience about their previous students, the tests and the assignments they wrote. When the NC (V) was new, it was difficult to compare. Now, it has already been implemented and the lecturers can interrogate it* [its success and its problems].

The participants pointed out that the NC (V) has now been functioning for more than seven years (2007-2015). Therefore, lessons have been learnt that lecturers could draw from and share with experts during any future curriculum review. Mokgadi indicated,

> *It's very important that lecturers be involved because they have had the first-hand experience with regard to implementing the NC (V) programmes. They know the challenges; they know their strengths as well of the programme. So, they are the best to be involved in that. So, if there's a possibility, then let the lecturers be consulted as well. Let their inputs be taken into consideration, in terms of how can the programme be improved, in terms of the design, in terms of the implementation. They would play a vital role in that capacity.*

Sipho commented on the usefulness of the continuous documentation of regular subject meetings between the lecturers and the Divisional Heads where curriculum questions are discussed and solutions are reached. He said, "*Perhaps if the minutes of subject meetings that are held internally and externally by lecturers are considered, perhaps that might assist to change [or] to minimise the current challenges with the NC (V).*"

He further remarked on the important experience that the lecturers have acquired over the past seven years as external examiners and moderators for the NC (V) programmes. In this capacity the lecturers are involved on a regional or national scale in drawing up examination papers, and in marking and moderating the students' work. This kind of experience gives them a bird's eye view of the entire NC (V) curriculum and the success of its implementation. Therefore, lecturers who have experience as examiners and moderators in a particular programme could be involved in the review of the NC (V) curriculum to share their experiences on their subject areas of assessment.

In summary, the participants felt that their engagement in the design phase of the NCV was absent; dissemination only provided minor opportunities for their participation, and the review of the curriculum has been disappointing in the kind of input that it invited from the lecturers.

5.2.4 The perceptions of the lecturers of the NC(V) entry level requirements

Most of the participants agreed about the value of the NC (V) programme and its effectiveness in opening opportunities for students who could not proceed to Grade 12 in the GET Band of the schooling system (cf. par. 3.2.2.3). These views also reflect the findings of the OECD (Field *et al*, 2014) and HRDC (2014a) which state that the NC (V) is intended as an alternative route for those students who wished to follow TVET. Mduduzi lauded the role of the NC (V) programme in this regard. He said, "*it caters for students from the high schools [who] initially were not able or capable of proceeding to Grade 12 and ultimately to university level."*

Furthermore, he felt that the NC (V) accommodated the aptitudes of students who did not fit into the academic stream GET band or tertiary education. He explained:

> *There are students who are capable of using their hands and then at the same time, they want to have a qualification. The NC (V) is meant to accommodate that type of student because we have a lot of dropouts at the matric level or Grade 12.*

However, the participants did not agree on the most suitable entry point at which students from the GET Band should enter the programme (cf. par. 2.4.2.2a). Mduduzi felt that the students should be channeled to the TVET colleges as early as from Grades 9 and 10. He was optimistic that the NC (V) programme gives capable students who otherwise might have dropped out of the mainstream education system the opportunity to further their studies (cf. HRDC, 2014a). He maintained, *"If the students come with Grade 9, they are still young and they are able to complete their qualification at an early age."*

The concept ‘growing one’s own timber’, whereby Grade 9 will be like a benchmark by which to measure the success of the NC(V) programmes comes into play here.

Mokgadi and Moagi countered the above view. For them the Grade 9 learner was not prepared for the entry level of the NC (V) (i.e., level 2). Mokgadi explained:

> *The types of students that we get were not NC (V) material, in terms of academic ability. The programme is too high for them. The entry level required was that of a student who should have passed Grade 9. Now, when you look at a Grade 9 student, and you introduce NC (V) to him, it is not an easy thing.*

Moagi put forward:

> *The NC (V) is a very good programme. It is unfortunate that the students that are enrolled, the Grade 10’s, are not well equipped. They do not have the necessary background and the necessary intellect for this. Because, in essence, the content that is handled in the NC (V) is much higher than the matric level although NC (V) programme is equated with matric.*

Sipho saw the caliber of students enrolled at the TVETs as a huge challenge due to the enrolment criterion (cf. par. 2.4.2.2a). He commented that, “*We have students that are ill-prepared for this programmes.”*

The Divisional Head, Bahle, concurred with Mokgadi and Moagi. He said,

> *The requirement that is used to register students for the NC (V), for example, is that they should have passed Grade 9. But when you register a student who has got that kind of level of education and the level of NC (V) - they tend to have difficulties, because NC (V) is a combination of academic and work-*

> *related studies. Now, they have to do two things at the same time, and NC (V) is, according to me, a learning of a higher quality. The students themselves have got somehow to enter the programme at a lower requirement.*

Moreover, Mduduzi also had some reservations on enrolling those students who have failed Grades 10/11/12. The same concern was raised by the Divisional Head, Bahle (cf. par. 5.2.4). He stated that,

> *Those who have attempted Grade 12 and failed, they come and join us and sometimes when they get something else, they drop out of the programmes."*

Nkanyezi stated,

> *We have got a problem with the students from the high schools, the Grade 9s. I think the requirement which the government have set, is not satisfactory because the Grade 9 students are not performing well. But students who are performing better are those students who have passed Grade 10, from Grade 10 above. Those students perform better, <u>but the Grade 9s</u>, somewhere along the line, they struggle.*

In this regard Moagi pointed out that the TVET college sector should not be seen as a second resort for struggling students. Students interested in Engineering can benefit career-wise from the programme but a high level of mathematics is required. He argued,

> *The NC (V) is a very good programme which is not well marketed by the Department and by the colleges and because of this, we need some of the best students, mathematically, in terms of IQ who would be able to handle these programmes.*

Thus, the above discussion indicates that the participants agreed on the quality of the NC (V) and its usefulness, but there was a lively debate about the most suitable entry point for the students. According to the SASA (RSA, 1996), students may enter the NC (V) programme provided they have passed Grade 9 of the GET Band (Field *et al*, 2014; HRDC, 2014a). A benefit of this criterion is that it opens the doors to any post-school level students to enter TVET colleges. However, this is the proverbial opening the 'hornet's nest'. All the participants, with the exception of Mduduzi, were not comfortable with the Grade 9 entry level requirement. They perceived this low admission criterion as the greatest obstacle to the successful implementation of the various NC (V) programmes (Field *et al*, 2014).

In comparison, students who have already passed Grades 10, 11 or 12 in the GET Band cope better than students with only Grade 9. Moagi argued:

> *Yes, the Department recommends that the students who have passed Grade 10 should be admitted to be registered for NC (V). In the past when the NC (V) started, we had students who did like, Grade 11, and some of them did very well; those students were able to cope.*

Furthermore, Mokgadi added that combining students from Grades 9, 10, 11 or 12 in a single classroom is a challenge. She raised her concern as follows,

> *In a class you may find that one student has passed Grade 9, the other has passed Grade 10, and the other has passed Grade 12. So, you teach these students at the same time, in the same classroom, <u>same content</u>, <u>and same manner</u>. So, at the end of the day, their grasping is not at the same level. You might find that you have left others behind or you find that others feel that this is too low for them because you want to bring the content to the level of the Grade 9s. So, you find that those who have passed Grade 12, feel that no, this is not for us, it's too low.*

This point was reiterated by the Divisional Heads. In particular, Maselo said,

> *As already mentioned, other students come with Grade 9, have passed Grade 9 and others Grades 10 11 and 12. Then when you teach those students in the class, those who did Grade 12 will perform well and those who came with Grade 9, they won't because of their general knowledge.*

The participants deemed a multi-level class of students with mixed abilities being taught at the same time in the same manner as a huge challenge to both the lecturer and the student. Students who have passed different Grades 9, 10, 11 and/or 12 have different abilities and competencies. Their understanding is not on the same level, and they cannot learn at the same pace. Such heterogeneous classes lead to a dead-end in terms of effective teaching and learning and student pass-rates. Bahle, the Divisional Head, puts this succinctly,

> *There's a mixture of all these things, and this whole confusion rises to such an extent that nobody achieves anything*."

Furthermore, Maselo, the Divisional Head, stressed the need for a clear admission policy to direct students into different programmes, each which have their own specific requirements.

> *There should be a policy, you know, like for example, if a student wants to enroll for the Engineering-Related programme, even if the student has done Geography, for the NC (V), they allow the student to do Engineering while he doesn't have background of math. The student has passed Grade 9, meets the criterion, which is unfair to the student, for the student was supposed to be channeled to a specific programme where it suits his or her specialty from school. So, instead the student will just come and say,' I am interested in doing Electrical Engineering' because people have got this rumour or information that Electrical Engineering pays a lot. So a student who did History or any subject for that matter will be enrolled for Electrical Engineering.*

She concluded that the end-result of a vague policy on admissions is increased student attrition.

> *At the end, students will start to drop out from March, particularly after the March holidays. The numbers go down: June, they go down, and by December, most of the students have just dropped out from the NC (V). You'll end up having about, let's say, you start with about 30 students in a class but around October, you find yourself having about 16 to 17 students. The others will just drop without informing the system; without reporting to the system.*

This discussion demonstrates that, in addition to problems related to the entry level requirement, the students' abilities should be matched with subject-specific programmes if the expected outcomes of TVET are to be achieved (Field *et al*, 2014). The participants felt that to combine students of different grades overburdened the lecturers as they are expected to consolidate, elaborate on and simplify the content in an attempt to reach all their students' learning styles and capabilities.

Moreover, other factors related to student admission negatively affect the implementation of the NC(V). An important factor is the age of some students who are admitted to TVET colleges. Moagi observed, "*The other aspect is our Basic Education; we know that some of the students are pushed through the system because of their age."*

He maintained that the cut-off age of 16 years for Grade 9 in the GET Band impacts on the quality of the students admitted to the TVET colleges. In an attempt to provide education for all the learners, students who fail in the GET Band are condoned from one grade to the next without the proper achievement of the learning outcomes (RSA, 1996). This implies that some students move throughout the GET band system because of age, and not achievement. Many of these struggling students end up seeking admission to TVET colleges. Moagi felt this was "lamentable", as it affects the standard and quality of the NC (V). He said, "S*ome of these students do not have the necessary background and intellect to be registered at a TVET college."*

Maselo, the Divisional Head, concurred,

> *In the general education, according to the rule a student cannot stay in the same class for more than 3 times. So they usually push them and immediately as they push them, there is a point where they say the student is or a child is over age, so, automatically, they transfer those students to the TVET colleges. This then becomes a challenge, because some of these students can't even write their names. Then sometimes their level of understanding is a challenge.*

Maselo highlighted yet another critical issue in terms of student admission into the TVET colleges. She explained that learners with learning disabilities seek admission to the college sector from special needs schools or similar institutions.

> *The students from special schools need special attention as learners with special needs. They can't absorb the information within a short period of time. And when you check the NC (V) programme itself, from January to June, they have to cover a certain portion of the syllabus during that period. Forget it! These students will not cope because they are not used to do such kind of work within six months!*

In her view, TVET colleges require a special policy provision to deal with the integration of students with learning disabilities. She stressed that the density of the NC (V) curriculum (i.e., the amount of work to be covered) and the timetable do not easily accommodate the needs of these students. For example, seven subjects are covered in the daily programme and each subject is taught by a different lecturer. Students with special needs are used to being taught by a trained teacher who is able to adjust the timetable to suit their learning needs. Maselo pointed out that in the TVET environment, *"We really don't have six months because we've got to include the public holidays; the school holidays, Good Fridays, and so on and so forth; and these students need to be catered for."*

All these aspects should be considered before students with learning disabilities are summarily granted admission at a TVET college.

Moagi pointed out that these kinds of issues around student admission and student quality contribute to an erroneous perception of TVET by the general public. They tend to regard TVET as an easy option for struggling students. However, he said:

> *The community at large has this perception that if a student cannot do well academically in other subjects, then they must go and do practical subjects - the technical colleges. When they [the students], got there they only find that they've got to do math, they've got to do this and that. So, the NC (V) is quite a tough programme.*

The view that students who do not perform well in the GET Band should automatically be referred to TVET is defeatist and does not embrace the main tenets of the post-school education and training system (DHET, 2013a). The TVET college sector is aimed at preparing students who would be fit to compete globally in the workforce (cf.3.3). Moagi expressed the opinion that such a view underrated the standard of the NC (V) curriculum, and aggravated issues of quality and throughput.

Nkanyezi, Mokgadi, Moagi, Lerato and all the Divisional Heads conceded that the NC (V) has great potential to improve the theoretical knowledge and the skills repertoire of the students if the entry level requirement be lifted beyond Grades 9 and 10. Nkanyezi put forward, "*I think the Department must just revisit this minimum requirement, standard or grade student have to pass at the high school level."*

In this regard she recommended an important and constructive solution to address the problem of the admission level. She suggested that TVET colleges should introduce a bridging year to assist entry level students to acquire the foundational skills to cope with the NC (V) subjects they did not do in the basic education and training system. Moagi concurred with this recommendation and suggested the introduction of NC (V) level 1, where students could be given a year in which to

become familiar with the NC (V). Both Nkanyezi and Moagi proposed a recommendation which would alleviate the high dropout and failure rate currently experienced in the TVET colleges due to ill-devised admission requirements.

In conclusion, the participants felt the entry level requirement to TVET colleges requires revisiting if the NC (V) programmes are to meet its aims and be successfully implemented (DHET, 2013a).

5.2.5 The NC (V)'s positioning on the NQF

The SAQA classifies and equates the NC (V) to the National Senior Certificate (NSC) at the NQF Level 4 (Taylor, 2011). Although this pegging of the NC (V) at level 4 reinforces its status, several participants contested this decision. Moagi regarded the NC (V) as *"...quite a challenging programme that should be given a separate and different name"* which distinguishes it radically from the NSC, and indicated that the NC (V) was on a higher level. He suggested, *"It should be a post-Matric diploma or something of that sort."*

Similarly, the Divisional Head, Bahle commented, "*The NC (V) could be offered as a tertiary education the way it is. The NC (V) is of, according to me, it's of higher quality, particularly because of the content of the four core subjects."*

Kaelo provided a strong reason why the NC (V) should not merely be equated with the NSC. He *"...found the content of the programmes to be more loaded than what [he] met during [his] time of study [N3]*."

He also argued that, *"...the instructional design covers a wide scope of engineering fields; [an] example being Civil Engineering Studies where the subject covers areas in Mechanical Engineering."*

This illustrates the level of complexity of the NC (V) curriculum. In addition, Kaelo gave a very specific example of this point. He explained that "*some NC (V) Level 2 content they did in the programme is taught at N4 when one is in the NATED programmes*."

Similarly, Mokgadi argued that to compare NC (V) and mainstream Grade 12 was myopic. In her view, the NC (V) graduate has specific workplace-related knowledge and skills that the Grade 12 school leaver lacks. She stated:

> *I found out that with the NC (V), one has more knowledge about a particular vocation because the NC (V) focuses on vocation, and at the end of the day, the one who has Grade 12 has a general knowledge in terms of subjects, for an example, physics and whatever. <u>But</u> this one* [the NC (V) student] *has a Marketing Certificate or has an Engineering Certificate and he can do one, two, three or four tasks according to what a Marketing Officer can do. For example, if he is requested to promote a product - the NC (V) one - has been taught how to promote, like being taught elements of promotion and all these. <u>But</u> the one who is from Grade 12 would find it difficult because he or she lacks the experience, knowledge and the skill.*

Mokgadi added that,

> *I taught Marketing, and Level 2 Marketing comprised of things that I did at N6, NATED programme. So, you find that the standard of NC (V) is very high. If a Level 2, at entry level, does work that is being done by N6, then you can see that this is serious.*

The passion with which these viewpoints were made indicated the explicit differences between the aims and the content of the two curricula (NSC and NC (V)). Therefore they are not synonymous, and should be given a different NQF rating. The stark contrast in the approaches was also emphasised by the Divisional Head, Bahle. He put forward that,

> *If one took two candidates – one from NC (V) and the other one from NSC – and gave them an assignment from their field of study, the one from NC (V) who did intense practical work will far outclass the NSC one who has been exposed to a general approach only*.

What I gathered from these deliberations was that additional groundwork should be done by curriculum designers in collaboration with TVET practitioners in order to review the conceptualisation, reception and adoption of the NC (V) with regard to its equivalent rating with the NSC on the NQF. The participants felt the NC (V) was "'*more loaded"; "outweighs"* and *"far outclasses"* the NSC. Mokgadi mentioned the '*shock'* experienced by her and other colleagues when they realised that the NC (V) Level 2 content which they were teaching was equivalent to that of N6 in Business Studies (NATED programme). This clearly illustrated the need to revisit the NQF status of the NC (V) curriculum.

If the course is re-evaluated, as suggested by most of the participants, and either given a different rating or an indicator is created to identify this additional dimension of complexity, it would elevate the NC (V) and possibly address the challenge where TVET is popularly perceived as of a lower status than mainstream schooling (Field *et al*, 2014).

5.2.6 Assessment in the NC (V)

The lecturers were given the assessment guidelines for the NC (V) as issued by the Department and briefed on the assessment procedures and processes during the workshops they attended in preparation for the introduction of the NC (V). Like the generic NC (V) guidelines, the assessment guidelines were subject-oriented. Mokgadi explained that the guidelines stipulated,

> *In term of assessment weight, so much percentage would be for class test, so much percentage for practical work and so much for exam. Then it also guided us on how the year mark is calculated.*

In general, the participants felt that the Department's assessment guidelines helped a great deal in enabling them to prepare the assessment tasks and to allocate marks.

However, the assessment of the NC (V) curriculum created a new administrative burden (cf. par. 2.4.2.2c). From the participants' point of view, administering assignments, and preparing the Portfolio of Evidence (POE) for the students and the Portfolio of Assessment (POA) for the lecturers consumed much teaching and learning time in the case of both the lecturers and the students (cf. par. 2.4.2.2d). Nkanyezi was dispirited by the administrative work involved in the assessment, "*But the thing which is a little bit challenging for us is administration work of which we didn't understand*."

Moagi also saw the administrative overload posed by the NC (V), as a '*lamentable issue*'. The lecturers concentrate more on the administrative work inherent in the assessment process than on their preparation for lectures and lecturing time. Maselo, the Divisional Head, commented:

> *The paperwork for NC (V) is too much. When you look at the POE files of the students as well as the POA files of lecturers, they present a different image. Those covers will be nice and the content inside will be nice. Lecturers would spend more time doing filing with the students rather than teaching students. When they say moderation of files, two weeks before moderation, students will not be taught. Lecturers will be giving students their POEs: file this task under this file divider, this one in that one. At the end, students who are doing NC (V) sometimes <u>are really suffering</u>; they are neglected* [as a result of the requirements of the system] *to satisfy moderators.*

The other issue Malebo, the Divisional Head, highlighted was the supplementary examinations that are written at the beginning of the first term of the new academic year. She pointed out that the results of the supplementary examinations determine the entry into the next NC (V) level. Writing the supplementary exams at the beginning of the year meant that the students could not join the next level until the papers were marked and the results were published. Consequently the students

were delayed in joining the classes for the next level until mid-February or towards the beginning of March. However, by this time, the classes had already commenced, and the lecturing and learning carried on without the students who sat for the supplementary examinations and who were still awaiting their results. This disrupted the programme and contributed to the failure rate in the next level of the NC (V) programmes, or to student dropout. Malebo commented,

> *This thing of supplementary exams! Because, now, the students write supplementary exams in January. It means other students are busy already in the classes; they are going to wait for the result. That means that they are going to start attending classes from March; some might fail a course at Level 2 and continue the other at Level 3, depending. I think that we are now giving students a short month because they start the classes after they have received their results. This will affect the whole class because the lecturer has to help these students to catch up with the rest of the class, and they must write the term test as well.*

The implication is that lecturers should either design catch-up programmes to make up for the work that students who have passed the supplementary examinations have lost or to advise the students to ask help from the other students who have been in the programme from the beginning of the term. This situation is unfair to both the students who have passed and those who had to wait for the results of the supplementary exams.

In particular, the participants raised the issue of the monitoring and assessment of the Integrated Summative Assessment Task (ISAT) practicals and the Internal Continuous Assessment (ICASS). The ISAT practicals, which comprise assessment of the vocational subjects, created tension between those members of staff who offer vocational subjects and those who offer the fundamental subjects (cf. par.3.6.2.). ICASS comprises the assignment tasks, class tests, term test and examinations.

Moagi explained,

> *ISAT is the practical assessment where the Department sets a paper and expects the NC (V) students do the project themselves from start to finish. The lecturer's job is to oversee the project and to check that it is properly done. Then she or he gives them marks and submit the marks to the Department. In the process they take pictures at every step of the project; they keep records for moderation purposes.*

He elaborated on the complexity of this Department-issued project and how it impacted on the overall timetabling of teaching and learning due to the large amount of time required both to do the project and to oversee it (cf. par. 2.4.2.2d). In particular, he explained how the ISAT affected the teaching of the fundamental subjects as follows,

> *Scheduling ISAT on the timetable depends on the management of the campus or the college at large. With some colleges they do practical like once a week. Once a week the students go for practical. With others they leave everything until the ISAT part. Then you miss the students for two to three weeks, and by the time they come back, they've lost interest in the fundamental subjects.*

Moagi felt that ISAT frequently had a negative impact on teaching and learning,

> *Because some lecturers were not well prepared for it…* [in that case] *instead of two to three weeks allocated for it, ISAT would take six weeks. During that time the fundamental lecturers cannot see their students…By time they come back from the ISAT it is time for the ICASS test and some students don't even turn up for the test.*

Assessment is integral in determining whether the outcomes of a programme have been achieved or not. The participants felt that the outcomes of the NC (V) are not satisfactory. Moagi

commented, "*But, we still have to see a successful NC (V) student, someone who will say, 'I have gone through the NC (V); I am here where I am because of the NC (V)'.*"

5.2.7 The fit between the lecturers' qualifications and the curriculum

The success of the implementation of the curriculum also depends on the fit between lecturer preparation and the content of the TVET curriculum to be taught. Inappropriate qualifications and the lack of relevant teaching experience renders lecturers as potential constraints in the curriculum implementation process (cf. par. 2.4.2.2b).

The participants agreed that the depth of the subject content covered by the NC (V) programmes posed considerable challenges to certain of the lecturing staff members. The lecturers' qualifications or prior training, exposure to and experience in industry related to the core subject, the subject content knowledge and scope affected their approach to teaching the NC (V).
Maselo, the Divisional Head, remarked,

> *Some of the staff members were not trained to offer NC (V) programmes. They just came and were given a course or a subject to offer. Sometimes you can really see that they are frustrated because others don't have even enough background or knowledge to offer that course. But because they have to teach students, they just do it just to please the process, which, sometimes, disadvantages the learner.*

The dilemma the lecturers find themselves in speaks to varied issues ranging from the recruitment and selection of lecturers to offer specific NC(V) programmes, what pre-implementation professional development opportunities were in place to prepare them for the new curriculum, and the fit between the qualifications possessed by a TVET lecturer and subject-matter expertise. Lerato put forward that, *"Appointed lecturers must have relevant qualifications relevant to the courses of subjects they offer."*

The participants suggested that the qualifications of some of the lecturers were too low and not adequate for the implementation of the content of NC (V) programmes. Bahle, the Divisional Head, explained, "*Many colleges have acquired so many lecturers from the mergers."*

As Maselo, the Divisional Head, alluded to above, these lecturers had to be accommodated in the new structures and were thus assigned a course or a subject to offer without attention to the suitability of their qualifications and/or experience.

Bahle, the Divisional Head, explained further that a process was in place to guide the appointment of lecturers more effectively

> *Now, the requirement for a lecturer to join a TVET college, at the moment, is REQV* (Relative Education Qualification Value) *13 - the lecturer has to have passed Grade 12 plus 3-year teaching training* [Matric + 3 years]. *Once a teacher has gone through those processes, he is able to train students at any level…. Some of the colleges, though, may not have those lecturers with that kind of qualification, and once, of course, the lecturer's qualification is lower than REQV 13, then it could be a challenge. But most of the colleges in the country have made M+3 as the requirement to join the lecturing profession.*

The above stipulation regarding lecturer qualifications has somewhat reduced the problem of unqualified or underqualified lecturers. Bahle attested,

> *The qualification challenge is minimal because even if those who may have, for example, the NATED courses, have passed up to N6. Also, there are programmes to enhance them because they also have to register with SACE* [South African Council of Educators] *and once you are registered with SACE you are <u>a qualified facilitator</u> of any learning programme.*

Registration with SACE, the regulatory body for the GET, is thus seen by Bahle as a hopeful measure that has improved the status of under- or unqualified lecturers at the TVET colleges. Nkanyezi concurred,

> *I think the Department should look at the teacher qualification, particularly with the method of teaching qualification or at least the Department should assist the lecturers to develop themselves concerning the professional qualifications. The qualifications should suit lecturing not only that qualification, because some lecturers have N levels only, others don't have any of this professional qualifications or teacher qualifications. I think the department should look at that and try to assist the lecturers with a programme or whatever, with one of the universities; I don't know how they could do it, so that all lecturers can obtain a professional qualification, at least.*

Mduduzi added the importance of practical knowledge of the discipline that lecturers are required to teach in a TVET college,

> *I still believe the lecturer who has got a method of teaching* [professional teacher training] *is still very important to me. That's number 1. But on top of this, because the NC (V) involves the practical, even the lecturers need to be exposed to that* [practical work related to the core subject]. *Lecturers need to be exposed to that, have experience in that. But most of the lecturers come from universities. They have been doing theories, but when coming to implementation of the practicals behind the theories, then it becomes a problem.*

Kaelo saw not only lecturers' qualifications but also suitable experience in TVET and in the industry as a greater challenge.

> *The lecturers are not only unqualified but are also not experienced in the fields they train students on. Some are former technical colleges' students and have never worked in industry to acquire the necessary experience, knowledge and skill. An example is where a former carpentry student was used to train and assess the bricklayers. The work was really bad and shoddy to be presented as a completed task.*

Moagi agreed that lecturer qualifications are important "*in terms of content*". However, he made a further point about the lecturers' knowledge of their students and how they learn.

> *I think to a larger extent professionalism is important. Because when you are a lecturer, it is not only the subject that is important. You also need to know your students, how they learn, learning styles, teaching methods. You need to know the institution. So, that's important. If you don't know the student or you don't care about them, you don't know anything about their background or you are not even interested in them, they will also not be interested in you nor your subject matter.*

Moagi suggested a solution to address the problem of unqualified or not suitably qualified lecturers for TVET, namely the establishment of dedicated education and training colleges to train and prepare lecturers to work in TVET colleges and institutions that offer TVET programmes.

> *Maybe we'll need to have some teacher training colleges. For example, in Bophuthatswana,* [the former homeland where Odi campus was situated in the pre 1994 dispensation]*, if I may refer to that, there were about three colleges where teachers were trained specifically to teach technical subjects. So getting such people, who were qualified professionally and also in terms of those practical subjects was good. We need to look back and see how, I mean, we could emulate such.*

He further acknowledged,

> *Well, with the new system we have universities. In fact most colleges of education are non-existent. They are closed down and then university students, they go there* [to the universities], *even if they wanted to do teaching, they pursue other careers because they feel that if they are good in mathematics and then are planning to do teaching, once they feel that they are doing well, they change their career and decide, no, 'I'm not going to do teaching anymore, I will do B.Sc. Pharmacy or something else.' So, we need to have colleges which will be specifically there to train specifically technical vocational education lecturers and teachers.*

He recommended,

> *Maybe the very same students who have gone through the NC (V) programmes, if they go further in their studies could be channeled towards teacher training because they have gone through the mill of the practicals and what have you. They know what NC (V) is like. They have the feel thereof. So, maybe some incentive should be considered to bring sense to NC (V) graduates to follow a TVET teaching career. They will be able to plough back their knowledge, experiences and skills into the TVET college sector.*

In summary, the participants agreed that the suitability of qualifications and the experience of the lecturing staff is a formidable obstacle in the effective implementation of the NC (V). The emphasis on the suitability of qualifications was put forward by those participants who did not possess a TVET-related qualification. Also, a strong recommendation which emerged is the design and establishment of a teacher training college specifically directed at preparing lecturers with suitable qualifications for TVET, which include practical training.

5.2.8 Lecturer capacity-building

The inception of a new curriculum, according to most of the participants, necessitates that the lecturers be capacitated to prepare themselves professionally for their new roles. Carl (2009:198) argues, "The personal professional growth and empowerment of the teacher" is a condition for their active involvement in curriculum development "from the design and planning thereof to the evaluation aspect". Thus, where the lecturers are involved in all the phases of the development of the curriculum, they are inevitably at the same time being prepared to implement the curriculum.

In this regard it is important to distinguish between dissemination workshops as discussed in paragraph 5.2.2, and other workshops which are directed at professional development. Bahle aptly defined *professional development* and commented that in his experience at the college this was not successful.

> *We lack professional development but in a way it is there . . . but it is not making an impact which is intended to. In terms of professional development, maybe sometimes it is good to define that. According to me, professional development means that you are enhancing the lecturer in terms of their own profession, what is that they are expected to, by a profession? The idea is there, the programme is there; paperwork is done. But like I said, it may not be producing that kind of desired results*.

The participants agreed that most of the lecturers had attended generic professional development workshops, such as Assessor Training and Facilitator Training; very few had attended either the Moderator Training or Verifier Training workshops. These in-service professional development workshops were an attempt by the DHET to empower the lecturers to take up their new roles with confidence.

In her reminiscence, Nkanyezi was of the opinion that these workshops had been rigorous and effective. They included written assessments, and were certified.

> *I still remember that year; it was towards the end of the year. But it was insisted that as long as you are offering the NC (V) programme, you must have the Assessor Course and a Moderator Course. So, at least during the next year, we had to attend a workshop for Assessor Training. This training is not only to attend, we were trained, and it is a sort of classroom, you are taught. Then you have to compile a file; you have to answer questions, and then, we had to write a test and submit a file. These were marked, and then if you have passed, you receive an Assessor Certificate. And then it's just the same with the Moderator Course.*

In contrast, Bahle, the Divisional Head, remarked,

> *These workshops don't contribute so much; they don't have an impact on the success of the learners; you will have a very nice POE file; you understand that you are helped professionally, but what about the learner who should understand the content of NC (V)? That's where we are lacking; our training workshops do not have much impact.*

He pointed out that the problem with the lecturers' professional competence was much more fundamental, and related to the lack of relevance of their initial qualifications and a lack of subject-specific knowledge. This concurs with the findings by Wedekind (2009) and the OECD Review (Field *et al*., 2014). This gap cannot be fully addressed by professional development workshops. Bahle said:

> *Maybe the policy will come out to say what the qualifications for the lecturers are. Now, until that kind of a White Paper is gazetted and it becomes a policy of the Department, there is no clear line of professional development because the qualifications that are in existence as of now are not actually directly related to NC (V). We don't have that; the lecturers we have are the teachers from the Basic Education Training environment.*

Mduduzi acknowledged the provision of workshops, but his remarks also belie the more superficial nature of the workshops which cannot bridge the gap created by the initial qualifications which are not directly related to TVET:

> *There are capacity building workshops because education changes every now and then, and as a result if there are some new items, they* [the Department] *offer capacity building workshops. And every term, before it closes for the next term, they usually even invite the publishers to bring in different textbooks so that we can see if they have put in the new information.*

Certain participants had, however, never attended any professional development programme. According to the cascade model, they had to rely on the transmission of information from the lecturers who had been recruited for the workshops. Mokgadi, in particular, said,

> *Development programmes, honestly! I for one never attended <u>any one</u>, but we had lecturers going for NC (V) programmes. Then when they get back there, like I said initially, it was more on the syllabus that okay, in terms of this particular programme, be it computer related or engineering related, it was broken down. It was sort of explaining in detail for lecturers that what does the curriculum entail; what are you expected to teach and what you are expected to look into. For example, when you teach promotional design, what is that you are supposed to focus on? Then that was it; it was more content related.*

Kaelo concurred,

> *I do know that lecturers in the NC (V) were sent for capacity building workshops or courses. But I am not sure what they did. I never attended one of them myself".*

In summary, the participants felt that the generic professional development workshops on facilitation, assessment and moderation were inadequate to enhance teaching and learning, and to capacitate the lecturers for the demands of the curriculum.

5.2.9 The lecturers' perceptions of the involvement of the industry in the NC(V)

The participants supported the involvement of the industry in the TVET college sector. They indicated that involving the industry, commerce and the services sectors was crucial to address the demands of the NC (V) programme (cf. par. 2.4.2.2d). The economic role industry could play was seen as something that should be pursued to raise the employability potential of the NC (V) programme graduates. The participants agreed strongly on this issue. This consensus is illustrated by the following comments.

Kaelo indicated,

> *Industry should play a significant role. As prospective employer of our students, industry will play a very important role in helping to develop the curriculum. The changes/ technological improvements that take place in the different vocational fields are implemented in industry. It is for this reason, that the industry becomes an important stakeholder and should be included in the development of vocational programmes. The end result of college training will be production of skilled workers who will easily fit into the industrial world out <u>there</u>.*

Mokgadi also mentioned her grasp of the crucial role of the industry in a TVET curriculum. She stressed that the industry should be included during the designing of the curriculum.

> *Industry should play a very active role, in a sense because students are trained to be prepared for work. Then what should happen is that whatever they are trained on, it is what is happening in the industry. So it is very important for*

> *industry to be part of the designers in terms of curriculum; because they have the latest trends; what is happening in the industry. So at the end of the day, because they are the ones who will be absorbing rather who will be employing these students, the qualifications should match their needs.*

Comments of this nature are indicative of the key role of collaborations, partnerships, engagements and interactions with all the stakeholders to present a comprehensive curriculum for the TVET college sector (HRDC, 2014a). Moreover, Sipho raised the issue of a weak partnership with the industry, the lack of strategic relationships with the industry, and how this impacts on the employability of students exiting the NC (V). He stated that,

> *There is no partnering with industries, as to what their needs are. And remember, industries will rather offer learnerships than an NC (V) programme that takes three years before completion".*

Poor links between the TVET colleges and industry inhibit the responsiveness of the TVET colleges to the needs of the students, the economy and the country. Industry is unfamiliar with the content and scope of the NC (V) and with the type of students who are enrolled for or graduating with a NC (V) qualification. Moagi said,

> *Look at NISSAN and BMW, these industries are very close to our campus, and you get students who are doing automotive repairs. One would have expected places like NISSAN and BMW to donate engines to us".*

Obviously, the industry was not consulted on the issue of employing and absorbing NC(V) graduates or even placing NC(V) students for experiential training (Field *et al*, 2014; HRDC, 2014a).

The participants saw this as an oversight on the part of the Department and of the college management. Moagi reasoned that through partnership between the TVET colleges and industry,

in particular, TVET colleges' partnership with the motor industry, would encourage industry to contribute, for an example, equipment,

> *<u>There are any engines</u> that you can think of, the latest. They* [motor industry] *can always donate them.*

Further, students could do their practical training sessions in real-life industrial settings rather than in simulated environments. Moagi contended,

> *Maybe is because the college is not doing anything about it because we need to liaise closely with these companies and then even our students that are doing some of these ERD* [Engineering Related Design] *should actually do internships there.*

He concluded,

> *I'm not so sure how the industry will feel about it because when I asked somebody at high level, a high profile person in the position, he said, 'No; industry is more concerned with profit making.*

He made an important suggestion regarding a liaison officer with the view to closer links between the college and the industry.

> *Perhaps we need to actually have somebody who is dedicated to liaise with the industry because here, for example, you teach student about a beam balance, they do calculations based on something like a beam balance, how to measure and what have you, using an old thing, and when they get to the workplace they get the computerised tool, something digital and the student must be taught from scratch. So, that is the thing we should avoid. Now, that is the kind of thing that I will personally envisage that we should have a very close link*

> *between the TVETs and the industry. Even in terms of employment, our students should be exposed to work opportunities there. Industry would also be exposed to the kind of students that they can get from TVETs.*

Mduduzi raised concern about the NC (V) levels and the placement of graduates in the workplace.

> *Industry needs to accept that if a learner has passed level 4, he can automatically serve apprenticeship. That's one of the most important things because as we are speaking now, industry says it needs only a minimum of level 2.*

The participants viewed such anomalies in the practice as the direct result of the poor or non-existent collaboration with relevant stakeholders in the industry.

Malebo, the Divisional Head, pointed to the importance of disseminating information about the NC (V) qualification to the industry:

> *Again with the companies, I think DHET or the college has to inform the companies because when they don't know about what goes on in the TVET colleges. So, when they are to hire the students, say, 'Ai!' this student doesn't have matric, is this matric or what?' I think they again have to inform the companies about the NC (V).*

But, as it stands, the industry tends to still only recognise the former NATED qualifications. In other words, they have not been brought up-to-date with TVET curriculum developments. Kaelo said,

> *The NC (V) programmes, accordingly, are intended to deliver a student who is able to fit into the role of the stream he/she has followed. Say like, Engineering-related programme. When the student qualifies at NQF level 4 which is*

> *equivalent to grade 12, the student is seen to be able to perform as a competent artisan. But that is not the case, industry now acknowledges student who have NATED programmes.*

Kaelo pointed out that the industry recognised NATED qualifications as opposed to the NC (V) ones.

> *Why? I think, it is because the programmes offered in the NATED programme, industry can measure or, let me say, industry identifies with them. The* [NATED] *students did enough workshops, rather practicals, than theory. So, they are, in my view, more skilled than the NC (V) students.*

Moagi indicated that discrepant views such as these could have been addressed through collaborative endeavours on the part of the DHET and the College management. Furthermore, the participants mentioned that stakeholder involvement in design could have produced and tabled a strategy for students exiting the NC (V). Moagi commented further that it was not only industry that was not accepting the NC (V) graduates, but the universities also were not accepting the students into their faculties. He pointed out,

> *At some stage some universities did not even know what the NC (V) was. It took some time for these universities to understand what it stood for. They knew matric but when you talk about NC (V)!* [Shrug of shoulders].

This is suggestive that the university sectors were also uninformed of what the NC (V) qualification entailed. Apparently many NC (V) students gave this kind of feedback to the lecturers. Moagi explained how frustrated students had come to him saying,

> *'Meneer'* [sir], *we cannot be accepted at a certain universities because they say they don't know about this NC (V)."* He reasoned, "*The NC (V) was something that was done*

by a department not in conjunction or in collaboration with the universities. Maybe at the moment they [the universities] *are being exposed to what the NC (V) is?*

Kaelo concurred,

We constantly get feedback from our former students. What you hear, 'Mam, employers are not prepared to employ people with NC (V).' This in itself is disheartening and discouraging us, and the learners, of course, and even their parents.

Mduduzi stressed the disappointment of the parents of TVET graduates,

Mam, it is a serious issue because the parents when they come here, they want to know why their children are not being employed."

The participants felt the NC (V) programmes had not attained the intended outcomes because the lecturers and the industry and other stakeholders were not involved in the designing processes. The participants concluded that DHET pursue partnerships between TVET colleges and industry to expose lecturers who have no workplace experience to the workplace; to open up opportunities for the placement of students to do the practical component of the subject they study in a real situation; industry to expose lecturers to the TVET college programmes and to the students.

5.3 SYNOPSIS OF THE RECOMMENDATIONS OF THE PARTICIPANTS

Various recommendations made by the individual participants were interwoven throughout the interviews, and have been indicated in the discussions above. However, in this section these recommendations are summarised.

The participants suggested:

- TVET lecturers should be involved in the review of the NC (V) in future to share their teaching experiences.
- The student admission requirements and entry points should be reviewed *vis-à-vis* the functioning and content of the NC (V) programmes. Either Grade 11 has to be made the entry requirement or the content of the NC (V) should be adjusted to accommodate the current entry requirement level of Grade 9. The NC (V) should be regarded as a tertiary diploma or a Level 1 should be introduced to bridge the skills and knowledge gap of the students entering from the GET Band.
- Lecturer qualifications should be designed and introduced through dedicated teacher training programmes presented at a designated teacher training college to meet the aims and objectives of the TVET college sector. A clear policy should be formulated that describes qualifications and attributes of a TVET college lecturer.
- The lecturers should acquire experience in practical industry-based fields related to their subject specialisation.
- The involvement of the industry in the design, implementation and review of the NC (V). In addition to the establishment of the South African Institute for Vocational and Continuing Education and Training (SAIVCET), a liaison office or preferably a committee comprised of members of the TVET colleges and the local industry/business sector surrounding the ODI campus should be established.

5.4 CONCLUSION

In this section the key themes which emerged from the interviews were presented as data substantiated by the comments of the participants.

In chapter 6 the researcher presents a summary of the research in the light of the research questions and aims, recommendations for practice, and areas for future research.

CHAPTER 6
SUMMARY OF THE RESEARCH, FINAL CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

In this concluding chapter the attention is focused on a summary of the literature study and the empirical investigation in the light of the problem-formulation and aims. I reiterate the key findings, and make recommendations for the improvement of practice. I propose areas for future research, note the limitations of the study, and outline the final conclusions.

At the beginning of this study I formulated the research question as: How do lecturers experience the implementation of the National Certificate (Vocational) in Technical Vocational Education and Training colleges in South Africa? I set four sub-questions to address this research question (cf. par. 1.2). The aim of the study was to ascertain how lecturers experience the implementation of the NC (V) in Technical Vocational Education and Training (TVET) colleges in South Africa. I highlighted the objectives of the study as follows:

- to define the curriculum and curriculum development, with special reference to the vocational and technical curriculum, and investigate the philosophical perspectives that shape the development of the vocational and technical curriculum;
- to provide a brief overview of the provisioning of TVET in the post-school education sector in South Africa; to describe the process of curriculum reforms since 1994 and to identify particular challenges faced in the effective implementation of this reform;
- to explore how a purposeful sample of TVET college lecturers experienced the introduction of the NC (V) curriculum at a selected college;
- based on the findings of the literature and the empirical inquiry, to make recommendations that could enhance practice.

6.2 SUMMARY OF THE LITERATURE RESEARCH

Chapter 2 examined the notion of curriculum in general (cf. par. 2.2) and the different types of curricula with their implications for implementation (cf. par. 2.2.1). Thereafter, attention was given to conceptualising the curriculum for VET and the role played by dominant philosophies and strategies in shaping and formulating the VET curriculum (cf. par. 2.3). Finch and Crunkilton's (1999) three-phase model of curriculum development in vocational and technical education was discussed, also in the light of other relevant literature on curriculum development (cf. par. 2.4). In particular, the role of the teacher (instructor/lecturer) in the dissemination and implementation of the curriculum was highlighted (cf. par. 2.4.3.2). The chapter concluded with a short discussion of barriers to the successful implementation of the curriculum in general which are relevant also to the implementation of VET curricula, particularly during times of reform and transformation (cf. par. 2.5). In this chapter the first objective of the study was met.

Chapter 3 discussed TVET provisioning in South Africa. An overview of the evolution of the technical vocational education and training college sector was traced pre- and post-1994 to highlight the progression of the current TVET provisioning and positioning in South Africa's post-school education landscape (cf. par. 3.2). The chapter indicated the transformation agenda of the post-1994 TVET college sector that culminated in the merger of the 152 technical colleges into 50 multi-site FET colleges that are now called TVET colleges (3.2.2). It looked into the aims of the TVET as indicated in the White Paper for Post-school Education and Training: Building an Expanded, Effective and Integrated Post-school System (DHET, 2013a), and gave a brief overview of each aim (cf. 3.3). Furthermore, in the chapter was indicated how the devolution of the DoE into DBE and DHET integrated the PSET system for articulation and responsiveness to the needs of the country and the economy (cf. par. 3.3.2; cf. par. 3.3.3; cf. par. 3.3.4; cf. par. 3.3.5). In the chapter was furthermore discussed the curriculum for the TVET colleges (cf. par. 3.6) with the emphasis on the two curricula, the NATED (cf. par. 3.6.1) and the NC (V) (cf. par. 3.6.2), and on the links between the two (cf. par. 3.6.3). The lecturer qualification fit in teaching and learning at TVET colleges was seriously looked into, given the scepticism with which the graduates are being perceived (cf. par. 3.7). The research findings showed that a partnership with the industry,

businesses and labour markets was crucial, and that relationships need to be forged for responsiveness to the imperatives of the country and the economy (cf. par. 3.8). In the chapter the researcher briefly highlighted the support services that are currently in place, and indicated that the competence level of the student support staff needed strengthening (cf. par. 3.9). In conclusion, the researcher elaborated on the 6 challenges to the TVET college sector (cf. par. 3.10), and gave a synopsis of the prospects for the sector (cf. par. 3.10.7). In this chapter the second objective of the study was met.

6.3 SUMMARY OF THE EMPIRICAL INVESTIGATION

The purpose of the empirical case study was to explore how the lecturers experience the implementation of the NC (V) at a selected college. The research design was described in chapter 4 and the findings in chapter 5. These two chapters thus addressed the third objective of the study.

A qualitative approach was adopted for the empirical investigation (cf. par. 1.6; cf. par. 4.2). The site selected by means of a combination of purposeful and convenience sampling was the Tshwane South College (TSC), Odi campus, Gauteng Province. The criterion for the selection was described in paragraph 4.4.1. Twelve participants considered to be information-rich was selected by means of purposive sampling (N=12), namely seven full-time lecturers, the Campus Manager who has the responsibility of ensuring the compliance to policies, including the implementation of the NC (V), and four Divisional Heads (with co-ordination and lecturing responsibilities) (cf. par. 4.4.2). Data-gathering in the natural setting at the campus were done by means of both in-depth individual and focus group interviews, together with field notes (cf. par. 4.4.3). The analysis of the verbatim transcriptions of the interviews was done according to the following stages, namely familiarisation with the data; identification of a coding framework; indexing the codes; charting the themes; and the mapping and interpretation of the findings (cf.4.4.4). Four criteria for the trustworthiness of the data were applied, namely credibility, dependability, confirmability and transferability (cf. par. 4.5). Finally, the steps were described that were taken to ensure that the ethical requirements for the research were adhered to (cf. par. 4.6).

The key findings were presented according to the following themes:

- **Limited lecturer participation in curriculum design** (cf. par.5.2.2). A consensus was reached among the participants that the lecturers' involvement in planning and designing the curriculum was in itself an empowerment for its implementation
- **Effectiveness of curriculum dissemination** (cf. par. 5.2.2). Delineating between readiness programmes as preparation for the introduction of the curriculum, and professional development to enhance and empower the lecturers' capacity and capability to implement the curriculum effectively and efficiently, was a challenge. This indicated that the dissemination and implementation of the curriculum were used interchangeably. Curriculum dissemination, as all other phases of curriculum development, needs to be given its primary position to support the implementation of the curriculum.
- **The lecturers' participation in the review of the curriculum** (cf. par. 5.2.3). Reviewing a curriculum is seen as remediation and a strengthening process: remediation in filling in the gaps and discarding the less important and strengthening and enhancing what worked best and what worked, but still needs development.
- **The lectures' perceptions of the NC (V) entry level requirements** (5.2.4)). The entry level requirements in a programme of learning are critical in respect of the success of the curriculum. The Grade 9 level has proved to be a challenge affecting the NC (V) throughput, also as regards the employability of the NC (V) graduates.
- **The NC (V)'s positioning on the NQF** (cf. par. 5.2.5). The position of the NC (V) on the same NQF level as the NCS is contested. This situation has to be reviewed either by adjusting the content and scope of the NC (V) or by repositioning the NC (V) on the NQF.
- **Assessment in the NC (V)** (cf. par. 5.2.6)**.** The assessment of the core and fundamental subjects ISAT and ICASS affects scheduling and the timetable. The result in tension among the lecturers. The administration of the POAs and POEs. Issues of quality assurance came to the fore in deciding on the certification of the programmes.
- **The fit between the lecturers' qualifications and the NC(V) curriculum** (cf. par. 5.2.7)**.** Most of the lecturers in the TVET colleges have academic teaching qualifications

and do not have sufficient knowledge of the industry, experience and exposure of the programmes they offer.

- **The lecturers' capacity-building** (cf. par. 5.2.8). With changes in the curriculum and the constant policy changes in the TVET college system, in-service professional development programmes to build the capacity of the lecturers needs to be ongoing.
- **The lecturers' perceptions of involvement in the industry in the NC (V)** (cf. par. 5.2.9)**.** The lecturers see involvement in the industry as important in facilitating technical and vocational expertise for both the students and the lecturers. Involving the industry at particular phases of the curriculum could benefit the TVET college sector in training and developing a cohort of young people that are employable, or even able to create employment.

6.4 RECOMMENDATIONS FOR THE IMPROVEMENT OF PRACTICE

A number of recommendations are made to improve practice with special reference to the implementation of the NC (V) curriculum. These are based on the findings in the literature and the empirical inquiry.

6.4.1 Research

The NC (V) programmes should be simplified in line with the entry level at TVET colleges. As it is, the students entering the colleges through Grade 9 as a requirement, are not coping well, compared to those who enter the programme with Grades 11 and 12 in particular. Research needs to be done to evaluate the students who have passed the NC (V) programmes The OECD Review (Field *et al.*, 2014) recommended that the vocational programmes be simplified to be more comprehensible and attractive. Thus, it is recommended that research be done to explore the TVET employment trends of the TVET college graduates whether they are employed in the fields they have studied or not. This will indicate if the fields of study are relevant to the workplace.

6.4.2 Policy and legislation

The impact of continuous policy and legislation changes in the TVET system has proved to slow down progress in the system as stakeholders have to cope with continual change. A new policy requires sufficient time for those persons implementing it to assimilate and internalise. The implementers of the policy, particularly the lecturers, need time to adjust to the new changes in the curriculum before another policy change occurs or a new legislation is passed amending the policy change. Currently, the DHET is of the intention of expanding PSET, in particular the TVET college system, to 2.5 million enrolments by 2030 (DHET, 2013a; Field *et al*., 2014). This requires a college administration system and capacity to manage the change.

6.4.3 The training of the lecturers

In the empirical investigation the participants indicated a need for TVET college lecturer training and for dedicated professional development programmes that will enhance the quality of teaching and learning. The professional qualifications of the lecturers need thorough appraisal by experts engaged in teacher training to ensure that the college lecturers acquire the knowledge, skills and attitudes, as well as the workplace-related content to perform their duties optimally and with confidence. Field *et al.* (2014:12-13) recommend that the professional preparation of the TVET college lecturers be strengthened with the intention to bring about a balance between pedagogical skills and workplace experience through appropriate training.

The participants emphasised a need for TVET college lecturers to have teaching qualifications. The emphasis was more on teaching methods and learning styles. TVET is not only about practical learning, tools and equipment, it has theory that lecturers as facilitators of learning and teaching need to be trained to transmit.

The OECD Review (Field *et al.,* 2014:98) indicated that 25% of the 9000 TVET lecturers in South Africa lacked teaching qualifications, and more than half had no industry experience. It also indicated that there were very few lecturers with artisan qualifications, and mostly in the electrical

and automotive trade; 40% had short-term contracts that did not encourage them to make a long-term investment in skills and qualifications. It is recommended that practicing TVET lecturers be retrained and the pre-service training of prospective TVET lecturers should be planned and implemented to equip lecturers with necessary knowledge and skills.

6.4.4 The involvement of the industry

The responsiveness and articulation of the TVET college sector to the needs of the country and the economy is a challenge that the DHET is set to address and respond to. To this regard the DHET (DHET 2013a) intends to work closely with the industry to forge links that will best help teach and train the TVET college students to be competent in the necessary and relevant skills of the trade they studied for. The OECD Review (Field *et al.*, 2014:11) recommends that vocational provisioning be linked more closely with the needs of the industry by making workplace learning mandatory for vocational programmes and coordinating vocational provisioning through a strategic body that will also involve industry stakeholders. It is recommended that the DHET forge sustainable partnerships between TVET colleges and industry that would strengthen the colleges. Bell and Cuypers (2015:12) argue that in developing partnerships the questions "why" and "what" should be used as a guide; that the focus be "rather on quality and not quantity". College-employer engagement and partnerships offer important benefits to the employers, to the college leaders and staff, and to the students, (Holm & Vollman, 2012:4).

6.4.5 The engagement of the lecturers in the phases of curriculum development

The participants in the research voiced their opinion that the lecturers be involved and engaged in the curriculum development process from the designing phase to dissemination, implementation, and evaluation and to review (cf. Chapter 2, par.2.2.1.2). Carl (2009) pointed out that involving the lecturers at any of the phases of curriculum development empowers them and has the potential to facilitate that the curriculum be accepted instead of it being rejected. The participants felt that the lecturers need to be involved, particularly in the review of the NC (V), because they were not involved at initial design of the curriculum. Involving lecturers during the design phase of

curriculum development prepares lecturers to anticipate change and serves also as a learning experience for them to improve on practice (cf. par. 5.2.1 & par.5.2.3). It is recommended that lecturer participate at all levels in future developments of the NC (V).

6.4.6 The revision of the curriculum (entry level requirements)

Sipho, one of the participants, mentioned that the NC (V) was to be reviewed three years after its inception, that is, in 2010. To his knowledge the NC (V) has not yet been reviewed (cf. par. 5.2.3). However, the DHET Minister, Dr B. Nzimande, in his 2012/2013 budget speech, stated that the NC (V) has been reviewed (cf. par. 5.2.3). Papier (2010:154) argues that "the disciplinary and skills requirements" in the four 'core' subjects of the NC (V) "were cognitively more demanding than the previous college courses had been". The recommendation is that the reviewers of the NC (V) consider the cognitive demands of the four core subjects (cf. par. 5.2.4).

6.5 AREAS FOR FUTURE RESEARCH

The TVET college sector is the DHET's priority to reach the stated aims in an attempt to expand and strengthen the TVET college system. The South African government supports the mandate of TVET not only to develop job-related skills but also to create opportunities for employment. Additional research of the TVET colleges system needs to be done to ensure the expansion.

The following suggestions as areas for future research are made.

6.5.1 Research into the involvement of the lecturers in the planning to the evaluation and/or review of the curriculum

Curriculum development is a protracted and an enriching process. Time and money need to be invested into research to explore how TVET college lecturers could be involved in curriculum planning and development from curriculum conception to evaluation and review. This could take the form of longitudinal qualitative studies.

6.5.2 The students' evaluation of the curriculum

Students who have successfully completed the NC (V) programmes at Levels 2, 3, and 4 could contribute towards curriculum review by evaluating the curriculum. Research into TVET college graduates need conducted to trace and follow-up to ensure whether the NC (V) prepared graduates for employability or for employment only. Current TVET college students also need to evaluate the curriculum for them to contribute towards strengthening the TVET college provisioning and responsiveness. Some participants recommended that the fundamental subjects, Language, Life Orientation, Mathematics and Mathematics Literacy be electives and not compulsory throughout the three levels 2, 3, and 4. Research could be undertaken to gauge the students' opinions of the NC (V) with regard to the fundamental subjects. This could take the form of large-scale surveys of TVET college students who have successfully completed the NC (V) programme at any of the levels 2, 3, and 4.

6.5.3 The industry-led evaluation of the curriculum

The industry-led evaluation of the curriculum will particularly help in forging sustainable partnerships between industry and the colleges. The industry has the potential to contribute in curriculum development at the design and the implementation phases. Research into the industries could be conducted through large scale surveys to identify the most important employment sectors for TVET graduates in future.

6.6 LIMITATIONS OF THE STUDY

The limitation of this study is that it was a small-scale project which focused on a single case study. The study focused only on one campus of the four multi-campuses of a single TVET college of the eight TVET colleges in the Gauteng Province. The findings cannot be generalised to other lecturers or to other campuses of the selected college. This limitation is typical of a qualitative study which sought depth and richness of data to highlight the unique perceptions and experiences of a few selected participants.

6.7 CONCLUSION

The effectiveness of the TVET college system in South Africa is crucial to national economic development and global competitiveness. However, the developmental nature of the sector makes it both a difficult topic to research and a challenging area in which to implement the change as envisaged in policy and legislation since 1994. In this study the lecturers' experiences of the implementation of the NC (V) in a chosen college were explored by means of a qualitative study. The lecturers' voices need to be heard to inform practice. In their review of the NC (V) programmes the DHET has a chance to tap into the lecturers' experiences and perception to strengthen the TVET colleges' responsiveness to the needs of the country.

REFERENCES

Akoojee, S. 2008. FET college lecturers: The 'devolving'link in the South African skills development equation. *Journal of Vocational Education and Training*, 60(3):297-313.

Akoojee, S. 2009. Intermediate-level public sector skills provision and FET Colleges: Expanding the agenda and widening the impact. *Journal of Public Administration*, 44(1):30-43.

Akoojee, S., Grewer, A. & McGrath, S (eds.). 2005. South Africa: Skills development as a tool for social and economic development. In Akoojee, S., Grewer, A. & McGrath, S (eds.). *Vocational Education and Training in Southern Africa: A comparative study*. Cape Town: HSRC Press.

Akoojee, S. & McGrath, S. 2007. Public and private Further Education and Training in South Africa: A comparative analysis of the quantitative evidence. *South African Journal of Education*, 27 (2):209-222.

Allais, S. 2011. What are skills? Reflections on policy in South Africa in the light of international debates. *Politics*, 28(30):1-21.

Altrichter, H., Feldman, A., Posch, P. & Somekh, B. 2008. *Teachers investigate their work: An introduction to action research across the professions*. New York: Routledge.

Badroodien, A. 2004. Technical and vocational education provision in South Africa from 1920 to 1970. In McGrath, S. (ed.). *Shifting understanding of skills in South Africa. Overcoming the historical imprint of low skills regime*. Cape Town: HSRC Press.

Bantwini, B.D. 2010. How teachers perceive the new curriculum reform: Lessons from a school district in the Eastern Cape Province, South Africa. *International Journal of Educational Development*, 30(1):83-90.

Baxter, P. & Jack, S. 2008. Qualitative case study methodology. Study design and implementation for novice researchers. *The Qualitative Report,* 13(4):544-559.

Bell, D. & Cuypers, M.M.L. 2015. *Sustainable collaboration in higher education: the case of the Cape Peninsula University of Technology (South Africa) and Fontys University (Netherlands)*. Cape Town: Juta

Billett, S. 2000. Defining the demand side of vocational education and training: Industry, enterprises, individuals and regions. *Journal of Vocational Education and Training,* 52:1, 5-31, DOI: 10.1080/13636820000200104.

Billett, S. 2004. From your business to our business: Industry and vocational education in Australia. *Oxford Review of Education,* 30 (1):12-33.

Billett, S. 2006. Constituting the workplace curriculum. *Journal of Curriculum Studies*, 38(1):31-48.

Boghossian, P. 2006. Behaviourism, constructivism, and Socratic pedagogy. *Educational Philosophy and Theory*, 38(6):713-722.

Booyens, J.C. 2010. The value attached to teaching qualifications by educators and stakeholders at a Further Education and Training College in southern Kwa-Zulu Natal. Unpublished doctoral thesis, Faculty of Education, University of Kwa-Zulu Natal.

Brandon, A.F. & All, A.C. 2010. Constructivism theory analysis and application to curricula. *Nursing Education Perspectives*, 31(2):89-92.

Brewer, R. 2007. *Your Ph.D Thesis: How to plan, draft, revise and edit your thesis*. Abergele, United Kingdom: Studymates.

Brown, J.D. 2001. *Using surveys in language programs.* Cambridge: CUP.

Burton, L.D. & Nwosu, C.C. 2002. Student perceptions of the integration of faith, learning, and practice in a selected education course. Paper presented at the biennial symposium of the coalition of Christian Teacher Educators, Grand Rapids, Michigan.

Carl, A. 2005. The "voice of the teacher" in curriculum development: A voice crying in the wilderness? *South African Journal of Education,* 25(4):223-228.

Carl, A.E. 2009. *Teacher empowerment through curriculum development. Theory into practice*. Cape Town, South Africa: Juta and Company.

Carless, D.R. 1998. A case study of curriculum implementation in Hong Kong. *System*, 26(3):353-368.

Charmaz, K. 2010. Grounded theory: Objectivist and constructivist methods. In Luttrell, W. (ed.) *Qualitative Educational Research: Readings in reflexive methodology and transformative practice,* 359-380. New York: Routledge.

Chen, C. 2003. A constructivist approach to teaching: Implications in teaching Computer Networking. *Information Technology, Learning, and Performance Journal*, 21(2):17-27.

Chilesa, B., & Ntseane, G. 2010. Resisting dominant discourses: Implications of indigenous, African feminist theory and methods for gender and education research. *Gender and Education*, 22 (6):617-632.

Chinyamunzore, N.N. 1995. Devolution and Evolution of technical/vocational education curriculum in Zimbabwe. Paper delivered at the IDATER '95 Conference (International Conference on Design and Technology Educational Research and Curriculum Development), Loughborough: Loughborough University, United Kingdom.

Christie, P. 2006. Changing regimes: Governmentality and education policy in post-apartheid South Africa. *International Journal of Educational Development,* 26(4):373-381.

Cohen, L., Manion, L. & Morrison, K. 2002. *Research methods in education*. (5th ed.). London: Routledge Falmer.

Craig, C.J. & Ross, V. 2008. Cultivating the image of teachers as curriculum makers. In

Creswell, J.W., Klassen, A.C., Plano Clark, V.L. & Smith, K.C. 2011. *Best practices for mixed methods research in the health sciences.* Bethesda (Maryland): Office of Behavioral and Social Sciences Research (OBSSR), National Institutes of Health.

Darling-Hammond, L. 1990. Instructional policy into practice: The power of the bottom over the top. *Educational Evaluation and Policy Analysis*, 12(3):339-347.

Darling-Hammond, L. 2006. Constructing 21st century teacher education. *Journal of Teacher Education*, 57 (10):1-15.

Department of Education (DoE). 2001. A new institutional landscape for public further education and training colleges: Reform of South Africa's technical colleges. Pretoria: DoE.

Department of Education (DoE). 2007a. Introducing the new National Certificate (Vocational). Pretoria: Department of Education.

Department of Education (DoE). 2007b. National Certificate (Vocational) programmes for levels 2-4 on the National Qualification Framework. Pretoria: Department of Education.

Department of Higher Education and Training (DHET). 2009. Further education and training colleges NC (V) and Report 190/191: Report on the conduct of national examinations. Pretoria: DHET.

Department of Higher Education and Training (DHET). 2012a. Green paper for post-school education and training. Pretoria: DHET.

Department of Higher Education and Training (DHET). 2012b. National Programme for Artisan Development.7 Steps to become a qualified artisan. Pretoria: DHET.

Department of Higher Education and Training (DHET). 2013a. White Paper for post-school education and Training: Building an expanded effective and integrated post-school system. Pretoria: DHET.

Department of Higher Education and Training (DHET. 2013b. Education infrastructure projects underway, says Nzimande. *South African Government News,* 11-4-2013.

Department of Higher Education and Training (DHET). 2014. Annual Report 2013/2014.

Doolittle, P.E. & Camp, W.G. 1999. Constructivism: the career and technical education perspective. Journal of Career and Technical Education, 16(1):23-46.

Dopson, L.R. & Tas, R.F. 2004. A practical approach to curriculum development: A case study. *Journal of Hospitality and Tourism Education,* 16(1):39-46.

Dyer, C. 1999. Researching the implementation of educational policy: A backward mapping approach. *Comparative Education,* 35(1):45-61.

Education Training and Development Practices Sector Education and Training Authority (ETDP-SETA). 2011. Concept note for the partnership between ETDP-SETA and SASCPO (South African College Principals Organisation) FET lecturer workshop: Empowering FET college lecturers to be at the cutting edge of skills development. Bedfordview, Johannesburg: ETDP-SETA.

Education Training and Development Practices Sector Education and Training Authority (ETDP SETA). 2012a. Private Further Education and Training Sector skills Plan. 2013-2014 update. Bedfordview, Johannesburg, S.A: ETDP SETA.

Education Training and Development Practices Sector Education and Training Authority (ETDP-SETA). 2012b. public Further Education and Training Sector Skills Plan 2013/2014 update. Bedfordview, Johannesburg, SA: etdp seta

Ensor, P. 2003. The National Qualifications Framework and higher education in South Africa: some epistemological issues. *Journal of Education and Work*, 16(3):325-346.

Feinberg, W. 2014. Dewey, John and pragmatism. In Phillips, D.C. *Encyclopedia of Educational Theory and Philosophy*. Thousand Oaks: Sage.

Field, S., Musset, P. & Álvarez-Galván, J.L. 2014. *OECD Reviews of Vocational Education and Training a Skills beyond School Review of South Africa*. OECD Publishing.

Finch, C.R. & Crunkilton, J.R. 1999. *Curriculum development in vocational and technical education: Planning, content, and implementation*. (5th ed.). Needham Heights, MA: Allyn & Bacon.

Fourie, A.N. 2003. A hypnotherapy (ego-states) model for survivors of sexual crimes: a psychological perspective. Unpublished D Ed thesis. Pretoria, UNISA

Fosnot, C.T. 2005. Constructivism revisited: Implications and reflections. *The Constructivist*, 16(1):1-17.

Fosnot, C.T. & Perry, R.S. 1996. Constuctivism: a psychological theory of learning. In Fosnot C.T. (ed). *Constructivism: Theory, Perspective, and Practice*, 21-40. New York: Teachers College.

Fullan, M. & Pomfret, A. 1977. Research on curriculum and instruction implementation. *Review of Educational Research*, 47(2):335-397.

Further Education and Training (FET) Round Table. 2010. Document for discussion: challenges facing the FET College subsystem. Towards finding resolutions in partnership with stakeholders, Pretoria*:* DHET.

Gamble, J. 2004. A future curriculum mandate for Further Education and Training colleges: Recognising intermediate knowledge and skill. In McGrath, S. *Shifting Understandings of Skills in South Africa. Overcoming the Historical Imprint of a Low Skills Regime*. Cape Town: HSRC Press.

Gerber, M. 2011. Pedagogical experiences of educators implementing Mathematical literacy in three Further Education and Training Colleges. Unpublished D. Ed. thesis. Alice, University of Fort Hare.

Gewer, A. 2012. Developing a framework for institutional planning and monitoring in FET colleges. Labour Market Intelligence partnership. Available at: http://www.lmip.org.za/sites/default/files/documentfiles//03%20Anthony%20Gewer_FET%20College%20ME.pdf Retrieved on 8 February 2016.

Gopinathan S. & Deng, Z. 2006. Fostering school-based curriculum development in the context of new educational initiatives in Singapore. Planning and Changing, 37(1):93-110.

Guba, E.G. 1981. Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Communication and Technology*, 29(2):75-91.

Gvirtz, S. & Beech, J. 2004. From the intended to the implemented curriculum in Argentina: Regulation and practice. *Prospects*, 34(3):371-382.

Handal, B. & Herrington, A. 2003. Mathematics teachers' beliefs and curriculum reform. *Mathematics Education Research Journal*, 15(1):59-69.

Henning, E., Van Rensburg, W. & Smit, B. 2004. *Finding your way in qualitative research*. Pretoria: Van Schaik.

Hodge, S. 2007. The origins of competency-based training. *Australian Journal of Adult Learning*, 47(2):179-209.

Holm, R. & Vollman, J. 2012. *Employer engagement: A business plan for further education and training colleges under agreement with USAID/South Africa for the partnership for skills development.* Boston: Jobs For the Future (JFF).

Huberman, A.M. & Miles, M.B. 1994. Data management and analysis methods. In Denzig, N. & Lincoln, Y.S. (eds.). *Collecting and interpreting Qualitative Materials*. London: Sage, 179-211.

Human Resource Development Council (HRDC). 2014a. Forging partnerships between FET colleges and stakeholders – implications for post-school education and training. Project Report by the Human Resource Development Council for South Africa (HRDCSA): Study on programmes identified and prioritised by the FET colleges technical Task Team and its work streams.

Human Resource Development Council (HRDC). 2014b. TVET colleges in South Africa: Pathways work streams. Report by the Human Resource Development Council for South Africa (HRDCSA).

Johnson, B. & Christensen, L. 2000. *Educational research: Quantitative and qualitative methods*. Boston: Allyn & Bacon

Jooste-Mokgethi, O.T. 2013. Demand-driven programme provisioning at a public FET College in the Western Cape: case study of the West Coast FET College. Unpublished D Ed thesis. Stellenbosch: University of Stellenbosch.

Karseth, B & Sivesind, K. 2010. Conceptualising curriculum knowledge within and beyond the national context, *European Journal of Education*, 45 (1):103-120.

Keiny, S. 1994. Constructivism and teachers' professional development. *Teaching and Teacher Education,* 10(2):157-167.

Kgobe, P. & Baatjes, I. 2014. White Paper on Post-school Education and Training: Some new policy directions. *Post-school Education Journal,* 1(1):3-5.

Kraak, A. & Hall, G. 1999. Transforming Further Education and Training in South Africa: A Case Study of Technical Colleges in KwaZulu-Natal. Pretoria: HSRC.

Kraak, A., Lauder H., Brown P. & Ashton D. 2006. *Debating high skills and joined-up policy*. Cape Town: HSRC.

Krefting, L. 1991. Rigor in qualitative research: The assessment of trustworthiness. *American Journal of Occupational Therapy*, *45*(3):214-222.

Kuper, A., Reeves, S. & Levinson, W. 2008. An introduction to reading and appraising qualitative research. *British Medical Journal*, 337(7666):404-407.

Lattuca, L.R. 2006. The constructivist pedagogy we're looking for. *Journalism and Mass Communication Educator*, 60(4):354-358.

Levin, B. 2008. Curriculum policy and the politics of what should be learned in schools. In Connelly, F.M. (ed.). *The Sage handbook of curriculum and instruction*. Toronto: Sage.

Levinson, B.A.U., Sutton, M. & Winstead, T. 2009. Education policy as a practice of power: Theoretical tools, ethnographic methods, democratic options. *Education Policy*, 23(6):767-795.

Lincoln, Y.S. & Guba, E.G. 1985. *Naturalistic inquiry*. Beverley Hills, CA: Sage.

Lipsky, M. 2010. *Street-level bureaucracy: Dilemmas of the individual in public services*. New York: Russel Sage Foundation.

Liu, C.C. & Chen I.J. 2010. Evolution of Constructivism. *Contemporary Issues in Education Research (CIER)*, 3(4):63-66.

Loh, J. 2013. Inquiry into issues of trustworthiness and quality in narrative studies: A perspective. *The Qualitative Report*, 18(65):1-15.

Louis, K.S., Febey, K. & Schroeder, R. 2005. State-mandated accountability in high schools: Teachers' interpretation of a new era. *Educational Evaluation and Policy Analysis*, 27(2):177-204.

Lourenço, O. 2012. Piaget and Vygotsky: Many resemblances, and a crucial difference. *New Ideas in Psychology*, 30(3):281-295.

Lynch, R.L. 1996. In search of vocational and technical teacher education. *Journal of Vocational and Technical Education,* 13(1):5-16.

Lynch, R.L. 2000. *New directions for high school career and technical education in the 21st century*. Information Series No. 384. Columbus, Ohio: Centre for Education and Training for Employment.

MacDonald, D. 2003. Curriculum change and the post-modern world: Is the school curriculum-reform movement an anachronism? *Journal of Curriculum Studies*, 35(2):139-149.

Maharaswa, M.M.A. 2013. Rebranding the Further Education and Training (FET) sector through leadership and organisational development. *Department of Higher Education Briefing. South Africa*, 1-21. Pretoria: DHET.

Matea, M.J. 2014. The evaluation of skills development facilitation in Gauteng public Further Education and Training (FET) colleges. Unpublished D Ed thesis. Pretoria, UNISA.

Matland, R.E. 1995. Synthesizing the implementation literature: The ambiguity-conflict model of policy implementation. *Journal of Public Administration Research and Theory*, 5(2):145-174.

McBeath, C. 1997. A strategy for curriculum dissemination. *Issues in Educational Research*, 7(1):53-67.

McGrath, S. 1998. National policies and institutional practices: The credibility gap in South African education and training reform [1]. *Journal of Vocational Education and Training,* 50(4):503-518.

McGrath, S. 2000. Coming in from the cold? Further Education and Training in South Africa. *A Journal of Comparative and International Education*, 30(1):67-84.

McGrath, S. 2004. Reviewing the development of the South African Further Education and Training college sector ten years after the end of apartheid. *Journal of Vocational Education and Training,* 56(1):137-160.

McGrath, S. 2007. Implementing an holistic approach in vocational education and training. *Australian Journal of Adult Learning*, 47(2):228-244.

McGrath, S. 2010. Beyond aid effectiveness: The development of the South African Further Education and Training college sector, 1994-2009. *International Journal of Educational Development*, *30*(5):525-534.

McLafferty, I. 2004. Focus group interviews as a data-collecting strategy. *Journal of Advanced Nursing*, 48(2):187-194.

McLaughlin, M.W. 1987. Learning from experience: Lessons from policy implementation. *Educational Evaluation and Policy Analysis*, 9(2):171-178.

McMillan, J.H. & Schumacher, S. 2010. *Research in education. Evidence-based inquiry* (6th ed.). Boston: Pearson Education Inc. & Allyn & Bacon.

McNergney, R.F. & Herbert, J.M. 2007. *Foundations of education.* (4th ed.). Boston: Allyn & Bacon.

Mestry, R. & Bosch, M. & Grobler, B.R. 2013. Understanding and managing conflict: A prerequisite for post-merger FET colleges. *South African Journal of Higher Education*, 27(1):144-161.

Miller, T. & Bell, L. (2002) Consenting to what? Issues of access, gate-keeping and 'informed' consent. In Miller, T., Birch, M. Mauthner, M. & Jessop, J. (eds.*). Ethics in Qualitative Research*. London: Sage.

Mohlokoane, M. & Coetzer, I. 2007. Towards a leadership model for the effective management of Further Education and Training Colleges. *Africa Education Review*, 4(1):15-27.

Morris, P. & Scott, I. 2003. Educational reform and policy implementation in Hong Kong. *Journal of Educational Policy,* 18(1):71-84.

Msila, V. 2007. From apartheid education to the revised National Curriculum Statement: Pedagogy for identity formation and nation building in South Africa. *Nordic Journal of African Studies,* 16(2): 146-160.

National Association of State Directors of Career Technical Education Consortium (NASDCTE). (undated) Career technical education; an essential component of the total educational system. Washington, DC: NASDCTE.

Nieuwenhuis, J. 2007a. Qualitative research designs and data-gathering techniques. In Maree, K. *First Steps in Research,* (pp. 69-97).

Nieuwenhuis, J. 2007b. Analysing qualitative data. In Maree, K. (ed.), *First Steps in Research,* (pp. 98-122).

Papier, J. 2010. From policy to curriculum in South African vocational teacher education: a comparative perspective. *Journal of Vocational Education and Training*, 62(2):153-162.

Papier, J., Needham, S. & McBride, T. 2012. *Contemporary issues in public FET colleges*. Pretoria: DHET.

Patton, W. 2005. A Postmodern Approach to Career Education: What Does it Look Like? Research article: Narrative counselling. Perspectives in Education: Postmodern (Narrative) Career Counselling and Education: Special Issue, 2(23):21-28.

Patton, M,Q. & Cochran, M. 2002. *A guide to using qualitative research methodology*. London: Medicins Sans Frontieres.

Paudel, N.R. 2009. A critical account of policy implementation theories: Status and reconsideration. *Nepalese Journal of Public Policy and Governance*, 25(2):36-54.

Penuel, W.R., Fishman, B.J., Yamaguchi, R. & Gallagher, L.P. 2007. What makes professional development effective? Strategies that foster curriculum implementation. *American Educational Journal*, 44(4):921-958.

Powell, L. 2012. Reimagining the purpose of VET – expanding the capability to aspire in South African Further Education and Training students. *International Journal of Educational Development*, 32(5):643-653.

Powell, L. 2013. A critical assessment of research on South African Further Education and Training colleges. *South African Review of Education*, 19(1):59-81.

Powell, L. & McGrath, S. 2014. Exploring the value of the capability approach for vocational education and training: Reflections from South Africa. In Carbonnier, G. & King, K. (eds.). Education, learning, training: Critical issues for development. International Development Policy Series No. 5. Boston: Brill Nijhoff, pp1-16.

Quay, J. 2003. Experience and participation: Relating theories of learning. *Journal of Experiential Education*, 26(2):105-116.

Republic of South Africa (RSA). 1996a. National Education Policy Act (Act No. 27 of 1996). Government Gazette No. 20659. Pretoria: Government Printers.

Republic of South Africa (RSA). 1996b. The South African Schools Act (Act No. 84 of 1996. Government Gazette No. 17579. Pretoria: Government Printers.

Republic of South Africa. (RSA) 1998. The Further Education and Training Colleges Act (Act 98 of 1998). Government Gazette, No 19421. Pretoria: Government Printers.

Republic of South Africa (RSA). 2001. The South African Qualification Authority Act (Act No. 58 of 1995). Government Gazette No. 22471. Pretoria: Government Printers.

Republic of South Africa (RSA). 2006. The Further Education and Training Colleges Act, 2006 (Act No. 16 of 2006). Government Gazette No. 29469. Pretoria: Government Printers.

Republic of South Africa (RSA). 2007. National Policy regarding Further Education and Training programmes: Approval of the amendments to the certification requirements of the National Certificate Vocational. Government Gazette No. 30266. Pretoria: Government Printers.

Republic of South Africa (RSA). 2008a. The National Education Policy Act, 1996 (Act No. 27 of 1996) and the Further Education and Training Colleges Act, 2006 (Act No. 16 of 2006). Approval for the document: National plan for Further Education and Training Colleges in South Africa. Government Gazette No. 31712. Pretoria: Government Printers.

Republic of South Africa (RSA). 2008b. The National Qualifications Framework Act, 2008 (Act 67 of 2008*)*, Government Gazette No. 31909. Pretoria: Government Printers.

Republic of South Africa (RSA) 2011. Speech by Minister Blade Nzimande, Department of Higher Education and Training, at the African Languages Steering Committee meeting, held on 16 September 2011, at the St Georges Hotel, Midrand, Gauteng, South Africa: Department of Higher Education and Training

Republic of South Africa (RSA). 2011. National development plan. The Diagnostic Report of the National Planning Commission. Pretoria: The Presidency.

Republic of South Africa (RSA). 2012. The Further Education and Training Act, 2006 (Act No. 16 0f 2006) and the National Qualifications Framework Act, 2008 (Act No. 67 of 2008). Amendments to the national policy regarding further education and training programmes: Approval of the documents, policy for the National Certificate (Vocational), qualifications at levels 2 to 4 on the National Qualification Framework (NQF) and amendments to the certification requirements of the National Certificate (Vocational). Government Gazette No. 35036. Pretoria: Government Printers.

Republic of South Africa (RSA). 2013. The Further Education and Training Colleges Amendment Act, Government Gazette No 36271. Pretoria: Government Printers.

Republic of South Africa (RSA). 2014. National Qualification Framework Act 2008 (Act No. 67 of 2008) Articulation Policy. Government Gazette No. 37775. Pretoria: Government Printers.

Riley, K.L. 2014. Social reconstruction. In Phillips, D.C. *Encyclopedia of educational theory and philosophy.* Thousand Oaks: Sage.

Robinson, M. 2002. Teachers for the twenty-first century. Teacher reforms in South Africa: Challenges, strategies and debates. *Prospects, 32* (3):289 -299.

Roelofs,(is this name correct?) E. & Terwel, J. 1999. Constructivism and authentic pedagogy: State of the art and recent developments in the Dutch national curriculum in secondary education. *Journal of Curriculum Studies,* 31(2):201-227.

Rogan, J. & Aldous, C. 2005. Relationships between the constructs of a theory of curriculum implementation. *Journal of Research in Science Teaching*, 42(3):313-336.

Rogers, A. & Taylor, P. 1998. *Participatory Curriculum Development in Agricultural Education. A Training Guide.* Rome: Food and Agricultural Organisation.

Rojewski, J.W. 2002. Preparing the workforce of tomorrow: A conceptual framework for career and technical education. Journal of Vocational Education Research, 27(1):7-35.

Rosenbaum, J. 2001. *Beyond college for all: The forgotten half.* New York: Russell Sage.

Sağlam, S. & Oral, B. 2010. Transformation of technical education faculties in Turkey in the process of European Union: Faculty of Applied Sciences. *Procedia-Social and Behavioral Sciences*, 2(2):4513-4517.

Schofield, J. 2001. Time for revival? Public policy implementation: A review of the literature and an agenda for future research. *International Journal of Management Reviews*, 3(3):245-263.

Schuh, K. L., & Barab, S. A. 2007. Philosophical perspectives. In J. M.Spector, M. D. Merrill, J. van Merrienboer & M. P. Driscoll (Eds.), *Handbook of research educational communications and technology*. New York: Lawrence Erlbaum Associates.

Shavit, Y. & Muller, W. 2000. Vocational secondary education. *European Societies*, 2(1):29-50.

Shawer, S.F. 2010. Classroom-level curriculum development: EFL teachers as curriculum-developers, curriculum-makers and curriculum-transmitters. *Teaching and Teacher Education*, 26(2):173-184.

Shenton, A.K. 2004. Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22(63-75).

Sirvent, M.T. 1994. The politics of adjustment and lifelong education: The case of Argentina. *International Review of Education*, 40(3-5):195-207.

Slattery, P. 2013. *Curriculum development in the postmodern era: Teaching and learning in an age of accountability.* (3rd ed.). New York: Routledge.

South African Council for Educators (SACE). 2011. A position paper on the professional registration of FET college educators. Centurion, South Africa: South African Council of Educators (SACE).

South African Qualifications Authority (SAQA). 1995. South African Qualifications Act No. 58 of 1995. *Government Gazette* No. 16725. Pretoria: Government Printers.

South African Qualifications Authority (SAQA). 2001. FETC Policy document. Pretoria: SAQA.

South African Qualifications Authority (SAQA). 2012. Policy and criteria for the registration of qualifications and part-qualifications on the National Qualifications Framework. Pretoria: SAQA.

Spillane, J.P., Reiser, B.J. & Reimer, T. 2002. Policy implementation and cognition: Reframing and refocusing implementation research. *Review of Educational Research*, 72(3):387-431.

Stoffels, N.T. 2004. "Sir, on what page is the answer?" Exploring teacher decision-making in the context of complex curriculum change. Unpublished D Ed. Pretoria, University of Pretoria.

Taylor, P. 2008. Higher education curricular for human and social development. Available at upcommns.upc.edu, 89-101.

Taylor, N. 2011. Priorities for addressing South Africa's education and training crisis. *Review commissioned by the National Planning Commission*. Johannesburg: Joint Education Trust (JET) Education Services.

Taylor, P. 2008. Higher education curricula for human and social development.

Tongco, M.D.C. 2007. Purposive sampling as a tool for informant selection. *A Journal of Plants, People, and Applied Research*, 5: 147-158.

Tozer, S. 2014. Essentialism, perennialism and the -isms approach. In Phillips, D.C. *Encyclopedia of Educational Theory and Philosophy.* Thousand Oaks. Sage.

Tshwane South TVET College. 2015. About Odi. Available at: http://www.tsc.edu.za/ Accessed on 12 October 2015.

Unwin, L. 2003. Being responsive: Colleges, communities and 'stakeholders'. Technical college responsiveness: Learner destinations and labour market environments in South Africa. Cape Town: HSRC.

Van den Akker, J.J.H., Fasoglio, D. & Mulder, H. 2010. *A curriculum perspective on plurilingual education*. Enschede, Netherlands Institute for curriculum development, (SLO): Council of Europe.

Vithal, R. & Jansen, J. 2012. *Designing your first research proposal: A manual for researchers in education and the social sciences*. Cape Town: Juta.

Walkington, J. 2002. A process for curriculum change in Engineering Education. *European Journal of Engineering Education, 27(*2):133-148.

Walsham, G. 2006. Doing interpretive research. *European Journal of Information Systems*, 15(3):320-330.

Wang, C.X. 2011. *Defining readings in the history, philosophy, theories and pracrics of career and technical education*. Long Beach: California State University.

Wedekind, V. 2008. Supporting Accelerated and Shared Growth in South Africa. EAP Project Paper 2, Report on the research on Further Education and Training (FET) Colleges in South Africa. University of KwaZulu-Natal Project EAP75 – England-Africa Partnership in Higher Education. KwaZulu-Natal: University of KwaZulu-Natal.

Wedekind, V. 2009. Report on the research on Further Education and Training (FET) colleges in South Africa. Durban: University of Kwa-Zulu Natal.

Wedekind, V. 2013. Rearranging the furniture? Shifting discourses on skills development and apprenticeship in South Africa. *Minister of Higher Education and Training Declaration of: The year of the Artisan', 4 Feb 2013 "It's cool to be an Artisan" We are here today with the Deputy Minister of Higher Education*, 37.

Westbury, I. 2008. Making curricula: Why states make curricula and how. In Connelly, F.M. (ed.). *The Sage handbook of curriculum and instruction*. Toronto: Sage.

Whitman, C.V. 2009. Framing theories and implementation research. In Whitman, C.V. & Aldinger, C.E. (eds.). *Case studies in global school health promotion: From research to practice.* New York: Springer.

Wonacott, M.E. 2003. *History of evolution of vocational and career-technical education.* Columbus: Centre for Education and Training for Employment. Columbus National Dissemination Center for Career and Technical Education, the Ohio State University.

Young, M. 2006a. Further and higher education: A seamless or differentiated future? *Journal of Further and Higher Education,* 30(1):1-10.

Young, M. 2006b. FET college teachers: A knowledge-based profession of the future. *Perspectives in Education: Higher Education and the World of Work*, 24(3):153-159.

Young, M. & Gamble, J. (eds.). 2006. Knowledge, curriculum and qualifications for South African further education. Cape Town: HSRC.

APPENDIX A

ETHICAL CLEARANCE LETTER: COLLEGE OF EDUCATION, UNIVERSITY OF SOUTH AFRICA

APPENDIX B

PERMISSION LETTER: DEPARTMENT OF HIGHER EDUCATION AND TRAINING

APPENDIX C

CONSENT LETTER: LECTURERS

College of Graduate Studies

University of South Africa

21 July 2014

Dear Participant

I am a Unisa Master's student and would like to do research at your campus. This letter forms part of my master's dissertation titled: **Lecturers' experiences of the implementation of the National Certificate (Vocational) in Further Education and Training colleges** for the degree of M Ed (Comparative Education) at the University of South Africa. The aim of this study is to find out how lecturers of a selected Tshwane South College of Further Education and Training (TSC-FET) experience the implementation of the NC (V). The findings of the study will contribute to the body of knowledge with regard to the role of lecturers in the implementation of FET curriculum.

I have chosen your college as the site of my research because it serves the purpose of my research in that this college has operated prior to 1994 and also is convenient for me because of its proximity to my home and workplace.

I appreciate your volunteering to participate in this study as an interviewee. Please note that your participation is voluntary and can be withdrawn at any stage of the study, if you so desire, without fear of intimidation. Your anonymity will be assured at all times. Moreover, all information gathered from this interview will remain confidential. The interview will comprise of semi-structured in-depth open- ended questions and will take 30-45 minutes long, conducted in English.

In this letter, I therefore seek your permission to audio-record the interviews so as to capture data with minimal delays and disruptions, albeit taking notes to allow for questions, probes and clarifications; and also to allow for member-checking.

After the completion of the study, a summary of the findings of the research will be made available to you as per the College arrangement.

Please note that I have been granted permission to undertake this interview by the Research and Ethics Committee of the College of Education, Unisa, the Head, Research Coordination, Monitoring and Evaluation, Department of Higher Education and Training, the CEO of Tshwane

South College FET, and the Odi Campus Manager. Should you have any research related enquiries or require further information, kindly address them to me.

My contact details are: MC Kanyane, telephone number: 012 429 3712 email: kanyamc@unisa.ac.za. Attached is the consent form. Kindly fill it in to indicate your willingness to participate in this study.

Your participation in this study is highly appreciated.

Motswalle Christina Kanyane

Researcher

Informed Consent Form

I have been given the chance to read this covering letter. I understand the information about this study and the conditions under which I will answer the interview questions. My signature says that I am willing to participate in this study.

_____ _____

Participant Names (Please print) **Participant Signature**

Date: _____

Motswalle Christina Kanyane _____

Researcher Name (Please Print) **Researcher Signature**

APPENDIX D

CONSENT LETTER – DIVISIONAL HEADS

College of Graduate Studies

University of South Africa

21 July 2014

Dear Participant

I am a Unisa Master's student and would like to do research at your campus. This letter forms part of my master's dissertation titled: **Lecturers' experiences of the implementation of the National Certificate (Vocational) in Further Education and Training colleges** for the degree of M Ed (Comparative Education) at the University of South Africa. The aim of this study is to find out how lecturers of a selected Tshwane South College of Further Education and Training (TSC-FET) experience the implementation of the NC (V). The findings of the study will contribute to the body of knowledge with regard to the role of lecturers in the implementation of FET curriculum

Your College has been selected by combination of purposive and convenience sampling from the four campuses of TSC-FET in the Gauteng Province. You have been selected as part of the College Campus management team to participate in focus group interviews to expound on the collective perceptions towards the implementation of the NC (V) in general, and on how, in your views, lecturers experience the new curriculum and on how this might impact on their day-to-day practice.

Your participation in this research is voluntary but crucial. Your anonymity will be assured and all information obtained from these interactive sessions will remain confidential. The session will be audio-recorded to capture data with minimal delays or disruptions. Nonetheless, I will be taking notes to allow for questions, probes and clarifications. I therefore seek your permission to this regard. These interview sessions will be facilitated in English. There are no anticipated risks associated with this research study. Moreover, you have the right to withdraw your participation at any stage of the study, if so desired, without intimidation or fear. Before finalising this study's report, I will give you feedback to establish the correctness of data. You should feel free to augment and clarify where necessary.

After the completion of the study, a summary of the findings of the research will be made available to you as per the College arrangement.

I have been granted permission to undertake this research by the Research and Ethics Committee of the College of Education, Unisa, the Department of Higher Education and Training, the CEO of Tshwane South College, and the Odi Campus Manager.

Should you have any research related enquiries or require further information, kindly address them to me. My contact details are: MC Kanyane, 012 429 3712, email: kanyamc@unisa.ac.za.

Attached is the consent form. Kindly fill it in to indicate your willingness to participate in this study.

Your participation in this study is highly appreciated.

Motswalle Christina Kanyane

Researcher

Informed Consent Form

I have been given the chance to read this covering letter. I understand the information about this study and the conditions under which I will be involved as a participant. Appending my signature would indicate that I am willing to participate in this study.

_____ _____

Participant Names (Print please) **Participant Signature**

Date: _____

Motswalle Christina Kanyane _____

Researcher Names (Print Please) **Researcher Signature**

Date: _____

APPENDIX E

INDIVIDUAL INTERVIEW GUIDE: LECTURERS

Below are possible questions that will be asked. However, there would be other emergent questions that will arise during the interviews:

1) Share your experiences of the implementation of the NC (V) programmes?

2) Were college lecturers involved in the design and development of the NC (V)?

3) Do you think in future lecturers as implementing agents should be involved in curriculum design and development? Why?

4) When a new curriculum is introduced usually there are some implementation guidelines from the education authorities, to what extent were these helpful in practice?

5) Does your implementation experiences correlate with what the NC (V) intend to deliver?

6) Explain the professional development programmes that were put in place to prepare you for your new roles as lecturers/management?

7) To what extent did these readiness programmes prepare you for this?

8) How does your teaching experience of pre-merger help you to implement the NC (V)?

9) Discuss your overall challenges in implementing the NC (V).

APPENDIX F

FOCUS GROUP INTERVIEW GUIDE: DIVISIONAL HEADS

Below are possible questions that will be asked. However, there would be other emergent questions that will arise during the interviews:

1) What do you see as main challenges to lectures in implementing the NC (V) curriculum?

2) To what extent did college lecturers actively participate in the design and development of the NC (V)?

3) Do you think in future lecturers as implementing agents should be involved in curriculum design and development? Why?

4) What role did management play in the implementation of the NC (V)?

5) When a new curriculum is introduced there are some implementation guidelines from the education authorities, were there guidelines specifically for management for the implementation of the NC (V)? To what extent were these helpful in practice?

6) As overseers of curriculum implementation, to what extent do you think the NC (V) addresses the social and economic needs of the country?

7) Did your college set up any site-based professional development programmes to assist clarify lecturers' understanding of the NC (V)?

8) Discuss what you see as overall challenge in the implementation the NC (V).