THE TEACHING PEDAGOGY OF TVET COLLEGE LECTURERS: A CASE STUDY OF THREE EASTERN CAPE TVET COLLEGES

By

Siyabonga Prince Sixabayi

Thesis

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Abstract

Lecturers are central in delivering the vocational curriculum that is offered by Technical and Vocational Education and Training (TVET) colleges, and they need to have relevant knowledge, qualifications, and skills. In the past, lecturers were recruited from industry with no teacher qualifications or teaching skills. This study aimed to investigate the experiences of TVET college lecturers who teach with or without pedagogy. This was a case study of three TVET colleges, and it was geographically limited to Eastern Cape province. It was a qualitative study which collected data using interviews, literature review and document analysis.

The main findings of this study were that general pedagogy and vocational pedagogy are not the same. Vocational curriculum outcomes differ from school curriculum outcomes. TVET college lecturers were not aware of the TVET college lecturer qualifications that are in the *Government Gazette.* The study recommends daily use of the concepts of pedagogy and vocational pedagogy by TVET colleges in their planning. Universities need to separate pedagogy and subject didactics in the design of lecturer qualifications. The gazetted lecturer qualifications need to introduce the concept of vocational pedagogy, and this must be fundamental across all the qualifications. A 1-year National Qualifications Framework Level 7 lecturer qualification should be developed by universities, which will aim to bridge the pedagogical knowledge gap between the traditional teacher qualifications and the lecturer qualifications, while the Department of Higher Education and Training needs to accommodate it in its policy on lecturer qualifications. A new model, called the 'competence model for TVET college lecturers' was developed, and it is recommended that it should be used as a guide in the employment of competent TVET college lecturers. This model will also be useful for the lecturers' continuous professional development.

Keywords: TVET college lecturers, pedagogy, vocational pedagogy, vocational curriculum, teacher qualifications, lecturer qualifications, content knowledge, Postgraduate Certificate in Education, pedagogical content knowledge, TVET colleges.

Declaration

Name: SIYABONGA PRINCE SIXABAYI

Student number: 45206651

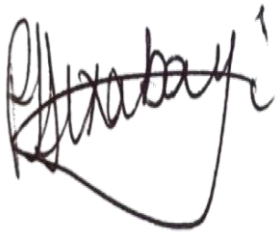
Degree: DOCTOR OF PHILOSOPHY - EDUCATION

TITLE: THE TEACHING PEDAGOGY OF TVET COLLEGE LECTURERS. A CASE STUDY OF THREE EASTERN CAPE TVET COLLEGES

I declare that the above thesis 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.

I further declare that I submitted the thesis to originality checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.



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SIGNATURE DATE

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Dedication

This study is dedicated to my parents, who encouraged us (as their children) to keep on studying, despite any challenges that we faced back then. They are not educated, yet they gave us education as one of the key principles for a fulfilled life. Their encouragement laid a solid foundation that we are now using to build upon.

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Acronyms and Abbreviations

BEd	Bachelor of Education
BTech	Bachelor of Technology
Cedefop	European Centre for the Development of Vocational Training
CK	Content Knowledge
DHET	Department of Higher Education and Training
DoE	Department of Education
ETUCE	European Trade Union Committee for Education
FET	Further Education and Training
HEI	Higher education institution
HRDC	Human Resource Development Council
ICASS	Internal continuous assessment
ICT	Integrated Computer Technology
NATED	Vocational Report 191
NCV	National Certificate Vocational
NPDE	National Professional Diploma in Education
NQF	National Qualifications Framework
OECD	Organisation for Economic Co-operation and Development
PCK	Pedagogical Content Knowledge
PGCE	Post- Graduate Certificate in Education
PK	Pedagogical Knowledge
SAQA	South African Qualifications Authority
SETA	Sector Training and Education Authority
TVET	Technical and Vocational Education and Training
VET	Vocational Education and Training
VEOP	Vocational Education Orientation Programme
VPCK	Vocational pedagogical content knowledge

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CHAPTER 1 INTRODUCTION AND OVERVIEW

1. Introduction and background

This chapter introduces the study and provide the background to this study. Additionally, a discussion of the rationale for undertaking this study is presented, followed by the problem statement, research questions, aims, and objectives, as well as the significance of the study. Thereafter follow a short review of the literature, a discussion of the methodology that was employed, limitations, and definitions of concepts along with a chapter outline. Next ensues a discussion of the Technical and Vocational Education and Training (TVET) college sector as it is currently configured.

TVET colleges were established in 2006 with the promulgation of the TVET College Act. The former 152 technical colleges were merged into 50 TVET colleges with multi-campus sites. TVET colleges offer vocational education, which is generally known as the type of education that prepares people for specific trades, for example, artisans, hairdressers, technicians, tailors, and so on. Curriculum Report 191 and National Certificate Vocational (NCV) are the vocational programmes that are offered by TVET colleges. These programmes lead to either formal employment or self-employment once the student completes his or her Level 4 or N6 certificate.

Lecturers are central to all institutions of learning, including TVET colleges. Sufficient, appropriately qualified, and competent lecturers who possess expertise in both the academic and work-related dimensions of TVET are prequisites if the institutions that offer TVET programmes are to make the critical contribution expected of them (Zinn, Raisch & Reimann, 2019:5; DHET, 2013:2). Mbina (2012) conducted a study to determine if there was a relationship between teacher competency and student performance. The findings demonstrated a substantial link between teachers' competency and students' academic success in chemistry. Chemistry students who were taught by competent teachers outperformed students instructed by unqualified teachers. In addition, chemistry

students taught by experienced professors outperformed those taught by novice ones.

Previous study findings about teacher skills have shown that there is a strong association between teacher competence as well as viable learning outcomes (Allen & Fraser, 2007:12). According to Wade and Moor (1992), as cited by Kulshrestha and Pandey (2013), teachers must acquire teaching methods and prepare to become excellent teachers who are confident in their own talents and in the potential of their pupils. According to a study conducted by Njeru and Orodho (2003), teachers' experience and educational credentials have a substantial impact on student's academic progress. Maguswi (2012) discovered this to make a major contribution to underachieving Zambian female learners in O-Level Physics. Furthermore, Obomanu and Adaramola (2011) discovered in Nigeria that the presence of untrained teachers resulted in the constant low performance of pupils in most science-related disciplines.

Blom (2016:13) argues that the shortage of professional lecturing staff in technological fields is considered debilitating, yet the TVET sector is seen as the cornerstone of the country`s skills development system, which aims to address the country`s critical skills shortages. In addition, the Sector Skills Plan (ETDP, 2012 44) indicated that lecturers were not adequately prepared when the curriculum was introduced or reviewed, and this has impacted both their knowledge of the content of the curriculum and how to teach in the classroom. This lack of preparation may to some extent account for the poor performance of learners, more especially those on the NCV programmes (Maguswi, 2012:22).

Zinn et al. (2019) conducted a case study on the developmental needs for South Africa TVET college lecturers, and lecturers who were participants in their study realised that there is a great need for development in the content knowledge area of competencies (for example, the content or themes on new technologies, control engineering, electronics, and information technology). About one in ten participants identified a further development need in the pedagogical content knowledge (didactic) area (for example, the topics or themes of lesson planning, execution, and methods); in pedagogic-psychological knowledge (for example, the topics or themes of assessment and classroom management); and in

organisational knowledge (for example, the topics or themes of curriculum, infrastructure, and resources) (Zinn et al., 2019:15).

The South African College Principals Organisation (SACPO) concluded in their Training Needs Assessment Study that the need for lecturers' training is critical in delivering effective and environmentally friendly vocational education and training (VET) programmes, and the need for a comprehensive education and development programme for TVET college lecturers cannot be overstated (Andreas & Beukes, 2018:3; Human Resource Development Council (HRDC), 2014:2).

Highly skilled lecturers are one of the most important influences on student progress. According to Dele-Rotimi and Oyinlana (2014), to be a teacher one needs to have the goal and talent of teaching, which can be obtained via teachers' institutes and years of on-the-job experience. Additional relevant facets, which include the size of the class, have no influence on students' learning – but the lecturers' excellence does. In addition, the lecturer's impact modifies the student's performances during their school or college careers. Lecturers facilitate the course through which students develop memory strategies and knowledge structures that are required to succeed in a technologically driven world. Consequently, efficient teacher training is of supreme value to promote educated citizens (Yassim, Rudman & Maluleke, 2019:7; Mokone, 2011:12).

Historically, TVET college lecturers were not required to have specific teaching qualifications to be appointed to teach in these colleges. Most of them were appointed based on their technical knowledge and workplace experience. This has resulted in a significant number of lecturers in the vocational education system who are either professionally underqualified or not qualified at all. According to the European Commission (Sarıkaya Erdem & Yıldırım, 2019:14), data from three research studies of TVET college lecturers in four provinces between 2009 and 2011 show that they are underqualified according to the requirements set out in the 2013 Policy for Professional Qualifications for Lecturers in TVET, as illustrated below.

Academic qualifications refer to discipline-specific qualifications and are here distinguished from teaching or education-related qualifications. It was found that in the Eastern Cape, 48% of lecturers held general teaching qualifications, 70% held academic qualifications, and 30% had work experience. In Gauteng and KwaZulu-Natal, 43% of lecturers held teaching qualifications, while 43% of them had industry experience and industry qualifications. In the Western Cape, 62% of lecturers held teaching qualifications. The European Commission (Sarıkaya Erdem & Yıldırım, 2019:83) found that 55% of lecturers held occupational qualifications, while 64% held academic qualifications. From the above statistics, it is evident that the majority of TVET lecturers lack the requisite qualifications.

Considering that 48 % of lecturers in the Eastern Cape have teaching qualifications, these are school teaching qualifications which equip these lecturers to teach in schools, and not in a TVET college. The problem with these qualifications is that higher education institutions (HEIs) have, in the absence of national vocational teacher training programmes, offered adapted versions of schoolteacher preparation programmes, for example, the Bachelor of Education: Further Education and Training (FET) phase. Consequently, TVET college lecturers were left without an option but to register for those courses, despite them not addressing the methods involved in delivery of the vocational curriculum. The HRDC (2014) indicated that the responsibility of the TVET college lecturer is to gauge the level of the students and apply the appropriate strategies to develop them to the next level. This requires lecturers to be both adept at various pedagogic approaches as well as to have the necessary industry expertise to provide holistic instruction. Teaching and learning in the TVET context involve the application of technical skills and knowledge. As such, learning is rooted in contexts, such as the workplace or creating livelihoods. The role of the lecturer is to facilitate learning environments that will develop students holistically (HRDC, 2014:21).

Unlike in the old dispensation, college lecturers are currently required to have specific teaching qualifications. Previously, their technical qualifications and years of experience were a determining factor for remuneration purposes (DoE,2008:6), using pay scales applicable to school teachers. Where provincial

departments of education made it a requirement for lecturers to obtain a teaching qualification, a few HEIs offered diploma programmes, which have since become obsolete. In 2000 the national Department of Education (DoE) indicated that it would publish a new framework of qualifications recognised for teaching in TVET colleges. The DoE added that the new framework of qualifications would entail a curriculum development process in HEIs that choose to offer such qualifications, where information on college lecturer training programmes at universities and universities of technology could be obtained (DoE, 2000:149). This has not been the case in South Africa only; in other countries, like the United Kingdom and Pakistan, national education policies have been reviewed to accommodate the pedagogical development of vocational teachers through formal training programmes that will bear credits (Strebler, Neathey & Tackey, 2014: 5, Baleegh-ur-Rehman, 2017:13).

In the absence of national vocational teacher training programmes, universities have been offering adapted versions of school teacher preparation programmes based on the Norms and Standards for Educators in Schools (DoE, 2007:8). This confirms that in the TVET college system there might be several lecturers who are professionally unqualified. However, this will be addressed by the new policy on lecturer qualifications which was introduced by the Department of Higher Education and Training (DHET). The rationale for this study is discussed next.

1.2 Rationale for the study

The rationale for this study is based on the researcher's observations. The researcher has observed that most lecturers who are currently employed in the TVET college system are either underqualified or not qualified at all. There have been some new developments in the vocational curriculum, for example, the introduction of the National Certificate Vocational (NCV), which requires lecturers to use an outcomes-based approach. The outcomes-based approach requires lecturers to employ a teaching method that is learner-centred instead of a teacher-centred approach. Lecturers might find it difficult to prepare and present meaningful outcomes-based lessons if they do not have an appropriate teaching method. According to Dele-Rotimi and Oyinlana (2014), the effectiveness of any

scientific endeavour, particularly in the sphere of education, is intimately tied to the competence of the individuals who do the activities in the organisation.

Dotse (2019:3) defines "teaching methods" as processes, methods, or ways of teaching, especially in accordance with a clear plan; it refers to the general principles, or pedagogy, used for classroom instruction. Lecturers' choice of teaching methods depends on their educational philosophies, classroom demographics, subject, and learning outcomes. Teaching theories, which primarily influence teaching methods, fall into two categories: teacher-centred and student-centred (Dotse, 2019:3). Internationally, very few countries were found to emphasise learner-centred pedagogies as part of initial teacher training for VET. In Finland, learner-centred pedagogy is explicitly required within all vocational teacher education programmes. Vocational teachers are expected to have occupational qualifications and at least three years' experience working in the vocational sector that they are offering training in (Cedefop, 2015:4).

There have been some major developments in lesson delivery and assessments for the TVET sector, for example, the introduction of internal continuous assessment (ICASS) guidelines, subject and assessment guidelines, and external moderation of college-based assessments, to name a few. All these developments are aimed at improving the quality of teaching, learning, and assessments in TVET colleges, and all colleges are required to develop internal-based trainings for all lecturers to train on these guidelines each year. However, TVET college lecturers will find it difficult to keep up with developments if they are not adequately trained in teaching methods, as all the developments listed above are related to improved teaching methods.

Universities offer general teaching courses that aim to qualify underqualified educators for schools. As there were no teacher qualifications for vocational lecturers, TVET college lecturers were left without any option but to register for the school-based educational courses. According to DHET (2013:7), in the absence of clear guidelines on professional qualifications for TVET college lecturers, and to align professional qualifications for TVET college lecturers with the policy for teachers in schools, some HEIs, like former Technikons, offered a one-year Post-Graduate Certificate in Education: Further Education and

Training—Vocational Education (PGCE-FET) in 2001. This qualification was a variant of the PGCE for school teachers teaching the FET phase. The challenge is that general teacher courses, including the PGCE, do not address the teaching and learning needs of the vocational setting.

Despite the age of the article by Gamble and Young (2006:27), it is relevant to this study, since it may be argued that those school courses might not be relevant for TVET college lecturers, because they do not give them any relevant teaching skills for the vocational curriculum. Blom (2016:3) concurs that these school courses referred to above have not fully met the teacher training requirements of lecturers in the vocational division. Despite commonalities with school teaching qualifications, evidence is intensifying that a diverse pedagogy is necessary to assist TVET college lecturers. A significant rationale is that vocational, technical, and occupational qualifications necessitate a curriculum that encompasses academic as well as practical skills to enable existing TVET college lecturers to teach the new curriculum.

It is important to note that for TVET colleges to be considered a viable educational option, the standard of teaching and learning must be raised by equipping lecturers in the areas of curriculum delivery and teaching methods.

1.3 Problem statement

Teaching is complemented when a lecturer is fully conversant in what to teach and how to teach it. Teaching pedagogy give confidence to lecturers in delivering their lessons (DHET, 2012:2). The performance of students taught by those who teach with or without pedagogy might not be the same. If the non-pedagogy of TVET college lecturers is not addressed, the quality of teaching in TVET colleges will remain compromised. The problem that was investigated was the pedagogical qualification or non-pedagogical qualification of TVET college lecturers. TVET college lecturers are a combination of those who do not have pedagogical training and those who have it. Literature revealed that great number of them do not have pedagogical training (Mgijima, 2014:3). This research was carried out to investigate whether there is any difference in the manner of lesson delivery

between the lecturers with pedagogy training and those who do not have such training.

A large cohort of lecturers do not have foundational competencies of teaching, yet are expected to teach effectively in their vocational classes (HRDC, 2014; Mgijima, 2014:3, DHET, 2013:2). This is supported by the National Policy Framework for Teacher Education and Development in South Africa (Lucas,2016:5), which aims to achieve a cohort of competent teachers dedicated to providing education of high quality, with high levels of performance as well as ethical and professional standards of conduct. Although these authors confirm the problem of lack of pedagogy of TVET college lecturers, and the new policy on lecturer qualification has tried to address the issue, there is still a large cohort of in-service lecturers who are not catered for in the new lecturer qualifications. This means that the problem is partially addressed, because the policy does not accommodate in-service lecturers who teach without vocational pedagogy.

The main research question and sub-questions are presented next.

1.3.1 Research questions

The main research question of this study is:

What are the classroom teaching experiences of TVET college lecturers who teach with or without possession of teaching pedagogy?

Sub-questions:

1. How do the teaching pedagogies help the TVET college lecturers in delivering their lessons?
2. How relevant are the teaching pedagogies entailed by general teacher qualifications that are currently offered by HEIs to the vocational setting?
3. Is there a link between school and vocational curriculum outcomes?
4. What strategies are in place to bridge the pedagogical gap between the general teacher qualifications and those proposed in the new lecturer qualifications (DHET, 2013) that were approved by the Minister of Higher Education and Training?

1.3.2 Aims and objectives of the study

This study aimed to investigate the teaching experiences of TVET college lecturers who teach with or without teaching pedagogy.

1.3.3 Benefits of the study

This study will make a meaningful contribution to the TVET college sector, in that it will give a clear picture of the roles, advantages, influence, and contributions that teaching pedagogy provides in teaching and learning. The DHET will also benefit from this study when considering the introduction of vocational education teaching programmes. Universities will benefit the most from this study, as it will give them an idea of where to start, as they all have to develop new lecturer training courses that are vocationally oriented in order to equip TVET college lecturers with the relevant teaching methods.

1.3.4 Significance of the study

Currently, a college lecturer is regarded as qualified when having a relevant academic diploma/degree with a teaching qualification. At the top of the list of critical skills required by lecturers is a teaching qualification (Billet, 2003:24). Mgijima and Morobe (2012) found that the percentage of lecturers teaching in vocational programmes without a teaching qualification was 37%. This means that 63% may be assumed to have a teaching qualification; however, this percentage also included lecturers who only studied short courses such as Assessor, Moderator, and other short courses, thereby acquiring some credits (Mgijima & Morobe, 2012:33). It is clear from the above that close to 40% of KwaZulu-Natal TVET college lecturers might not possess teaching pedagogy, although this is one of the critical skills in which they should have to be fully qualified. Literature confirms that the status quo is similar in other provinces, including the Eastern Cape (Papier, 2017:33; DHET, 2016:9).

1.4 Review of literature

In South Africa, teacher education is the responsibility of the DHET and takes place in faculties or departments of education in universities. To reiterate, college lecturers in vocational fields have, over the years, been recruited from industry and generally possessed technical qualifications and extensive workplace expertise and understanding.

Many lecturers who were appointed to teach fundamental subjects like Language, Mathematics or Science came into colleges with school-based teaching qualifications and had limited or no industry experience, as the nature of the vocational curriculum in these subjects overlaps with the school curriculum. The skills legislation of 1998 necessitates that colleges offer sector-specific training, which is why all lecturers have also been attaining Assessor and Moderator qualifications offered by private providers, over and above the qualifications that they possess (Papier, 2008:106). TVET colleges had previously employed lecturers from industry. This indicates that there are lecturers who have the requisite experience but lack pedagogical training and possibly some content knowledge. An example here could be a motor mechanic who has learned on the job and worked for many years; they have the practical skills but not have a formal qualification in the field of motor mechanics nor any teaching qualifications (Mgijima & Morobe, 2012:19).

The imperative to train teachers for schools, and the successive policy changes that have affected the school sector, have compelled teacher training institutions to focus heavily on the needs of schools, while TVET colleges have remained in the background and something of an unknown entity in many higher education faculties (Chetram, 2017:46). Given the limited options for obtaining relevant teaching qualifications (upon which promotion and remuneration for college lecturers are based), colleges have approached universities and requested that they develop qualifications for their sector. This appears to have occurred on a larger scale in cases where external donor agencies have been willing to sponsor such development and delivery, as in the case of KwaZulu-Natal and the Western Cape (DHET, 2013; Papier, 2008:108, DoE,2008:9).

The methodology that was used in this study is discussed next.

1.5 Methodology

1.5.1 Research approach

The research was qualitative in nature and included various data collection methods and the scheduling of semi-structured interviews with professionally qualified lecturers as well as those lecturers who did not have teaching qualifications.

1.5.2 Design

The design of this study was a case study. The term case study has several meanings, and can be used to describe a unit of analysis or a research method. Researchers have used case studies for many years in various disciplines to answer the ‘how’ and ‘why’ questions. Case studies provide a multi-perspective analysis where the researcher considers not only the voice and point of view of one or two participants in a situation, but also the views of other relevant stakeholder groups and interactions between them. Case studies aim to better understand the dynamics of a specific situation (Nieuwenhuis, 2007:75). Case studies benefit from the advanced development of theoretical proposals, research questions, and techniques for data collection, processing, and analysis. In the case of research, the amount of data collected is often enormous. This is particularly the case in qualitative research. Thus, defining previous research proposals and questions, however temporary, is an important starting point (Yin, 2018:58).

Naele, Thaba, and Boyce (2006) state that case studies are appropriate when there is a unique or interesting story to be told. They added that case studies are used to provide context to other data, offering a complete picture of what happened in the programme and why (Naele et al., 2006:4). In this study, of interest would be the fact that TVET colleges appoint lecturers who are academically qualified rather than those who are professionally qualified, due to the nature of the curriculum content of the vocational courses.

Baxter and Jack (2008) categorise case studies as descriptive, explanatory, exploratory, multiple, intrinsic, instrumental, and collective. This study adopted a descriptive case study to provide an accurate and valid representation of factors that are relevant to the research questions, and it was more structured than exploratory. Descriptive case studies are used to describe an intervention or phenomenon and the real-life context in which it occurred (Baxter & Jack, 2008:547-549). For this study, data was collected to reveal the realities of the teaching pedagogy for the TVET college lecturers, looking at both past and current real-life situations, as well as future planned interventions.

1.5.3 Population

The population of this study came from all TVET college lecturers who do or do not have teaching qualifications. Participants from the population were purposively selected with the aim of choosing all those who were willing to participate and who could provide first-hand experience concerning the research phenomenon that is accurate, reliable, meaningful, and rich (Cohen, Manion & Morrison, 2011:115).

1.5.4 Sample and sampling

The researcher only chose participants who would be able to supply information, were prepared to participate in the research and were willing to share the information (Cohen et al., 2011:103). The sample for this study came from three out of eight TVET colleges. In each TVET college, four lecturers who were trained under general teacher qualifications as well as four lecturers who do not have any teaching qualifications at all were purposefully selected to give rich information about their teaching experiences in vocational classes with the qualifications they currently possess. Participants were selected across the TVET programmes, and at different levels.

1.6 Data collection methods

The researcher used triangulation to establish the reliability and validity of data to ensure the trustworthiness of the findings of this study. According to Denscombe (2010:57), triangulation means comparing many sources of evidence to determine the accuracy of information or phenomena. Internal validity, external validity, and reliability are unsuitable for qualitative research because of their philosophical and epistemological orientation. Creswell (2010:28) advises that qualitative research should employ credibility, transferability, dependability, and confirmability of the data. These terms are more suitable for qualitative studies, and qualitative researchers are advised to employ this terminology as opposed to the positivistic terminology of validity, both internal and external. The value of triangulation rests upon the assumption that events are being investigated and that if they can be investigated in several different ways that concur, then the researcher may believe that their account is a true account of those events. In this study, a data triangulation approach was adopted because different data sets were collected at different times through individual interviews, literature review and document analysis.

1.6.1 Interviews

Interviews involve asking participants a series of open-ended questions and probing to find out from them things that cannot directly be observed, or to find more information. Interviews were used to enter the other persons' perspectives, and interviews are communication with a purpose (Creswell, 2014:33). The interviews took the form of semi-structured interviews of up to 45 minutes for each participant.

Carbetta (2003:270) describes semi-structured interviews as follows:

> The order in which the various topics are dealt with, and the wording of the questions are left to the interviewer's discretion. Within each topic, the interviewer is free to conduct the conversation as he thinks fit, to ask the questions he deems appropriate in the words he considers best, to give an explanation and ask for clarification if the answer is not clear, to prompt the respondent to elucidate further if necessary and to establish his own style of conversation.

Participants, referring to the selected sample in each TVET college, were asked the same questions for the researcher to gain a deep understanding of the

phenomena and to get answers to the questions posed by this study. The researcher digitally recorded the responses of the participants as they spoke, which was later transcribed. Interviewees were given an opportunity to elaborate on their explanations and what they knew. An additional method employed was document analysis, which is discussed below.

1.6.2 Document analysis

Document analysis entails the scrutiny of relevant documents, which can be a valuable source of information (Henning, Van Rensburg & Smit, 2011:18). This study was qualitative, and as such the use of interviews was insufficient as the findings were thought to be subjective, and thus its credibility, transferability, dependability, and conformability could be doubtful. Because of the aims of this study, the researcher used college analysis of results, college moderation reports and the policy on lecturer qualifications to collect data to understand the teaching experiences of TVET college lecturers who teach with or without pedagogy.

1.6.3 Data analysis

Data was transcribed and analysed using conceptual categories. It was labelled, coded, and clustered, finally identifying themes to answer the research questions. Verbatim quotes were selected to highlight various parts of the data presented.

1.7 Ethical considerations

In terms of anonymity, Creswell states that a participant may be unspecified, where the researcher cannot identify a particular response with a particular participant. The data that were collected was kept private, the collected data was used only for research, and findings were not associated with the names of the participants (Creswell, 2009:210).

No information given by participants was made public or available to other people. All participants in the research study had the right to remain anonymous. The names of the participants and those of the institutions involved were not requested during interviews, making it impossible to link the participants with the

data. The data was used in such a way that no other researcher knows the source thereof.

The participants each signed an informed consent statement, which confirmed confidentiality. All imaginable and suitable information on the aims of the research, processes, weaknesses, and risks to which participants would be exposed were provided. The participants were informed of their right to withdraw from the study at any time, and they were all legitimately and mentally competent to give consent. The protection of participants was ensured before they participated in this research.

The privacy and confidentiality of the participants were preserved by maintaining their anonymity (Creswell, 2009:173).

The report was compiled as accurately and objectively as possible to avoid plagiarism and fabricated findings in the release of findings or publication (Mouton, 2011:23).

In terms of respondent fatigue. as soon as it is noticed that participants are tired or show signs of tiredness, there should be an adjournment of the investigations until the following day (Creswell, 2009:175). There was no adjournment of the investigation as no participant showed any sign of tiredness. Participants were protected from any physical and mental discomfort.

The participants were informed on all aspects of the research that may influence their willingness to participate, and all inquiries on features that might have a negative influence were answered (McMillan & Schumacher, 2001:22).

1.8 Limitations and delimitations of the study

Any study's limitations relate to potential flaws that are typically outside the researcher's control and are strongly related to the research design that was selected, restrictions on the statistical models that were used, financing restrictions, or other variables.

Delimitations are essentially the boundaries that the authorshave purposefully e stablished. To prevent the study's goals and objectives from becoming impractical to attain, they are concerned with the definitions that the researchers choose to define as the boundaries or limits of their work (Zubac, 2020:14; Creswell, 2014:188).

1.8.1 Limitations

Time was a limitation in this study. It would have been preferable to have additional time to conduct the interviews. Since the researcher was working on both a full-time and part-time basis, it was difficult to devote adequate time to the collection of data. The participants' time was also very limited due to the other commitments that they had. Finance was an inhibitor since the researcher had to travel to conduct the fieldwork, and costs were incurred from his own pocket. However, research funds became available at a later stage. The researcher had to travel quite a distance to visit the three TVET colleges, which entailed time, financial resources, and careful planning.

The researcher wanted to do class observations and focus group discussions, but participants wanted to withdraw from participating, citing many issues. For example, they did not have the time, and they would not be comfortable teaching when there was a 'stranger' in the classroom. COVID-19 was a further 'spanner in the works' and inhibited access to TVET colleges. The researcher conducted interviews and supported these with document analysis. There was also a challenge of limited current literature on vocational pedagogy, which resulted in the study presenting limited literature on the phenomenon.

1.8.2 Delimitations of the study

The study was geographically limited to the province of the Eastern Cape in South Africa. The research focused on three TVET colleges in the province. In each TVET college, the research was conducted with four lecturers who possessed teacher qualifications and four lecturers who did not have teaching qualifications.

1.9 Definition of key concepts

Key concepts that were used and what they will mean in this study are specified below.

1.9.1 Teaching methods

The term teaching method refers to the general principles or pedagogy used for classroom instruction. The choice of teaching method depends on what suits the educational philosophy, classroom demographic, subject area(s) and school mission statement. Teaching theories primarily fall into two categories or 'approaches', teacher-centred and student-centred (Dotse, 2019:2). In this study, teaching methods referred to the different teaching principles and strategies that everyone who delivers a lesson should be able to apply.

1.9.2 Teacher education

Teacher education refers to the policies, procedures, and provisions designed to equip (prospective) teachers with the knowledge, attitudes, behaviours, and skills they require to perform their tasks effectively in the classroom, school, and wider community. Those professionals who engage in this activity are called teacher educators (Green, 2015:35). In this study, 'teacher education' referred to the teacher training that aimed to equip TVET college lecturers with different teaching methods they may use in their vocational classes.

1.9.3 Vocational education

A definition of vocational education is the pursuit of a particular career or occupation (Collins, 2018:186). In this study, vocational education, and training (VET) was viewed as referring to those aspects of the educational process involving, in addition to school education, the study of technologies and related sciences and the acquisition of practical skills, understanding and knowledge relating to occupations in various sectors of economic and social life (DoE,2008:10).

1.9.4 Lecturer

This refers to a person who lectures, especially as an occupation at a university or college of higher education (Waite, 2007:76). In this study, the term lecturer refers to those who lecture at TVET colleges.

1.9.5 Teacher

A teacher is a person who teaches, especially in a school (Waite, 2007:67). In this study, the term teacher refers to those who teach in schools.

1.10 Chapter outline

Chapter 1 contains the problem statement, hypothesis, research aims and questions, significance of the study, rationale, and research methods. This chapter gives an overview of the whole research study.

Chapter 2 contains the theoretical framework used in this study.

Chapter 3 presents a review of the literature related to the topic under study.

Chapter 4 outlines the different research methods used in the study.

Chapter 5 contains the analysis and presentation of the findings of the study.

Chapter 6 comprises a discussion of the findings of this study.

Chapter 7 provides the conclusions of this study as well as recommendations for future studies.

1.11 Conclusion

This chapter presented the introduction and background to this study. Additionally, it provided an outline of the research problem, research questions, rationale for the study, and the research methods that were employed. Key concepts were defined, and the limitations and delimitations of the study were explained. Finally, an outline of the various chapters was presented.

The next chapter discusses the theoretical framework that underpinned this study.

CHAPTER 2 THEORETICAL FRAMEWORK

2.1 Introduction

A theoretical framework is a rational framework that underpins the development of the study. It provides the researcher with a strong scientific research base and provides a theoretical backing for the complete study. Creswell (2010:15) defines theoretical frameworks as precise theories about characteristics of human existence, such as the functioning of political affairs, human relations, and the economy. These theories can be applied to the study of actual events, such as those being investigated in this study.

The theoretical framework strengthens the study in the following ways: it links the researcher to present knowledge. Guided by a relevant theory, the researcher is given a basis for the hypotheses and the selection of research methods. Enunciating the theoretical assumptions of a study compels the researcher to interrogate the why and the way. It allows the researcher to intelligently move from merely explaining an occurrence to taking a broader view regarding a variety of features of that occurrence. A theory aids the researcher in identifying the limitations of these generalisations. A theoretical framework identifies the major variables that affect an interesting event and emphasises the need to consider how and when those key variables might change (Briggs & Coleman, 2007:11). In trying to address the issues of the research questions raised in this study, the theoretical framework enabled the researcher to gain a deeper understanding of the pedagogy of TVET college lecturers as a phenomenon. The researcher was able to move from giving simple descriptions to generalising different aspects of the phenomena based on the understanding gained through the theoretical framework.

This study employed Shulman's theory of pedagogical content knowledge (PCK). Literature from this study has revealed that TVET college lecturers are mostly content knowledge specialists. However, Shulman's body of work emphasises PCK in addition to content knowledge, which will enable lecturers to understand the differences in how learners learn. He understands the importance of lecturers

being discipline specialists, but for teaching to be effective, he believes that they also need to be pedagogical knowledge specialists to understand the learning difficulties that learners face in their classes. A brief discussion of PCK follows.

2.2 Pedagogical content knowledge (PCK)

PCK is the fusion of content knowledge and pedagogical knowledge. Shulman (1986:9) describes PCK as the most effective way to represent ideas, the most potent analogies, illustrations, examples, explanations, and demonstrations — in other words, the ways of representing and formulating the subject that make it understandable to others, these are included in the classification of PCK for the most frequently taught topics in one's subject area. It also entails being aware of the factors that influence how simple or challenging a given subject is to learn.

Shulman explains PCK as the subject content knowledge for teaching, which equips teachers for each subject they teach by using different teaching strategies and teaching methods. Furthermore, Shulman has developed this PCK theory as a distinct branch of knowledge that extends beyond content knowledge to knowledge of the subject matter aspect for teaching. The main elements in his concept of PCK are knowledge of subject matter representations on the one hand and understanding of specific learning difficulties and student conceptions on the other. As previously stated in the literature, these elements cannot be separated and must be used in a flexible manner to achieve the learning outcomes (Enqvist, 2015:4).

In a later article, Shulman (1987) included PCK in what he referred to as the knowledge base for teaching. According to him, this knowledge base is composed of seven categories, three of which are related to content – knowledge of content, understanding pedagogy, and knowledge of the curriculum – while the other four relate to general pedagogy, learners and their characteristics, educational contexts, and educational purposes. Whereas Shulman’s knowledge base encompasses every category of knowledge that may be relevant for teaching, the definition of craft knowledge is restricted to types of knowledge that guide the teacher’s behaviour during classroom practice (Shulman, 1987:11). For the

purposes of this study, the focus will be on Shulman's first three categories of the knowledge base for teaching, as indicated above.

The usefulness of PCK is in the transformation of academic subject content knowledge so that it can be used effectively and openly in the delivery of lessons, either in the classroom or in a practical class. It is important to note that when teachers are dealing with subject content, their actions will be largely determined by their knowledge of the pedagogy, making PCK an essential component in crafting the knowledge of learners.

2.3 Key elements of pedagogical content knowledge

Mishra and Koehler (2006:1025) underscored the fact that, in general, teacher training information bases have concentrated on the substantive knowledge of the educator. Teacher training has recently shifted its focus away from subject matter and toward instructional methodology, with school teaching practices frequently taking precedence over substantive content knowledge as the only base.

This was affirmed in the structure for TVET college teachers' competences; these competences were planned to address professional instructional methods and were endorsed to empower TVET lecturers and equip them to be effective in their classes. Furthermore, it affirms that TVET college lecturers should be masters of the content knowledge of their subjects as well as authorities, just as PCK states, confirming the three components of Shulman's PCK as shown below.

The primary and key component of PCK from Shulman's work that will be utilised in this investigation is content information, which incorporates sound information on the topic and its core values. Shulman (1986) contends that knowing a subject for instruction requires more than a knowledge of its authenticities and philosophies. Teachers need to understand the rules, structures, and organising principles that define what is appropriate to say and do in each profession. Not only does the teacher need to understand that something is true, but they also need to understand why it is true, why this is supported, and how our faith in their profession may be undermined or denied. The teacher is also expected to

understand why one aspect is very important to another, while another may not be as crucial (Shulman, 1986:9).

Most TVET teachers are discipline masters; they know and see all the core values and morals that they identify with their students. With the premise and practical information that they have acquired, they are able to act in response to the topic of why something is the way it is. This information on subject content is not merely rudimentary, it is necessary for assessment of the presentation of material and instruction. In this way, TVET college lecturers with in-depth content knowledge may instruct in an interesting and lively manner. Those lecturers who have a nominal knowledge of the content may circumvent the difficult aspects of their subject or instead choose to progress with their teaching in a didactic manner.

The subsequent classification provides instructive information. The full range of projects designed to educate on specific subjects and points at a given level, the variety of instructional materials available in accordance with those projects, and the arrangement of qualities that serve as both signs and contraindications for the use of specific educational plans or programme materials specifically speak to this (Shulman, 1986:10).

Shulman highlighted two different components of curricular information that are significant for instructing, approaches that he indicated alongside the educational programme information and the vertical educational plan material. Horizontal material refers to the material on the educational programme that students are studying in diverse classes (in other areas of knowledge). Vertical information includes characteristics that were and will be taught in a related area of knowledge during the initial and subsequent school years, as well as the facts that capture them (Shulman, 1986:10). This classification is significant for TVET college teachers, particularly when they are arranging their work. It will empower them to successfully incorporate various subjects into one exercise, wiping out redundancy.

The last and seemingly most generally convincing of the three substance-related classifications is the idea of PCK. Shulman (1986) characterised PCK as including the most beneficial ways of expressing those ideas, the most

outstanding comparisons, models, explanations, and demonstrations; in other words, the most beneficial ways of speaking about and understanding the subject that make it understandable to others. PCK includes an understanding of what makes understanding specific subjects simple or difficult, as well as the backgrounds and pre-existing tendencies that students of different ages and backgrounds bring to the learning of those most frequently taught ideas and exercises (Shulman, 1986:10).

Clearly, education in TVET colleges will not be feasible if lecturers do not know the specific teaching method to use to teach a subject. They will be incapable of transmitting the content of their subjects to indicate the relevant principles, although they are subject masters. It will be difficult for them to understand the content and uncertainties of the students' learning situation. Consequently, PCK is important for TVET college lecturers.

2.4 The aims of pedagogical content knowledge

Shulman's work focuses on instructional methods for skilled professionals such as TVET college lecturers. He emphasised that the reason for instructing and receiving professional training differed from the teaching methods used in other academic disciplines. He identified the following three fundamental and encompassing abilities – the capacity to think, to accomplish, and to act honourably – as necessary for professional ability. He went on to say that education and learning include combining knowledge and skills with a thorough understanding of "performance"; the educational facility must emphasise that the creator must grasp to act, and that they must act to serve (Shulman, 2005:53).

According to Shulman (1986:5), the activities of specialists are not only intended, but the attention and exercises of teaching methods reinforce these understandings. The focus of educational attention shifts away from rational and theoretical information and toward change issues and the use of feasible material capacities in relation to the individual's actions and behaviours. Subject content teaching methods aid in shaping the future of prospective professionals by influencing actions and preparations, to inspire comprehension. Consequently,

this recognises what is involved with "the professional training, since it includes hypotheses and handy information and is guiding its understudies into the universe of work" (Shulman, 2005:54).

2.5 Subject content and pedagogy

A major task of a lecturer's specialist knowledge is to provide information about a topic. Primarily, topic information is consistently perceived as being central to producing academic material. Similarly, the type of topic information developed by lecturers influences academic choices in their practical preparation. In addition, topic information together with PCK may be seen as a foundation for exciting teaching, as lecturers' expertise in content knowledge inspires students' achievement (Baumert et al., 2010:133-180).

Shulman contends that knowledge pertaining to a topic as well as school educational techniques, although necessary, were not inadequate for grasping the information from remarkable lecturers and to represent the amazing ways in which lecturers deliberate on the way particular content should be taught. He adds that PCK is the substantive data that controls the showing process, including the approaches to and explanations of the subject that make it understandable to others. If educators want to be successful, they must simultaneously address the problems of content and instructional methodology (Shulman, 1986:9).

PCK involves the blending of subject content and general teaching methods into an understanding of how the precise elements of a topic are arranged, adapted, and addressed for supervision. Shulman states that PCK is vital and appropriate to educate, based on his recognition of the evidence of the compilation of information to instruct as an alternative to the subject content. These methods are also relevant to the TVET college lecturers as their primary duty is to teach.

2.6 The role of pedagogical content knowledge in teaching

Bhowmik, Banerjee and Banerjee (2013:6) found that the performance of students in a class where a lecturer has knowledge of PCK is acceptable. This

affirms that PCK influences the quality of teaching and learning. The representation and description of powerful notions, illuminating methods, information about the cause of problematic notions or sample to study, as well as information on students' previous experiences, are all common concerns of PCK. In addition, it considers what the students contribute to the learning situation, which may be vibrant for the particular learning situation to be completed. Consequently, recognition is given to the students' learning methods, previous comprehension and misunderstandings regarding a particular subject, and possible mishandling of previous information that they possess.

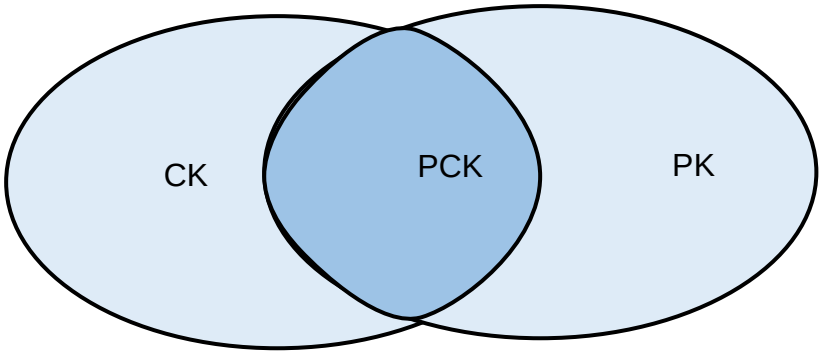
TVET college lecturers and educators with separated and incorporated information will possess a more noticeable ability to plan and give exercises that help students to create additional and synchronised comprehension than those lecturers who possess information that is inhibited and focused. TVET college lecturers should decide on the best way to structure and guide learning situations under specific conditions and requirements, to assist students in developing knowledge and abilities based on the likelihood that they have the ability. Shulman (1986) contends that to enhance and inspire both as a movement and a calling, it is necessary to have a comprehensive information base of training that includes general academic knowledge, with uncommon reference to those expansive standards and procedures of study hall, the board, and association that seem to rise above the topic; information on students and their qualities that incorporates information on instructional settings, ranging from activities of the gathering or homeroom to the administration and financing of school regions; and information on students' characteristics that includes information on their background. PCK is a unique combination of content and instruction that is the domain of educators (Shulman, 1986:12).

Consequently, PCK is a kind of manageable ‘academic intelligence’ that encourages lecturers and teachers to administer their occupations intensively in the context of the homeroom setting. All the above-mentioned arrangements, despite the variety of inferences, combine to describe the task of the teaching of subject content in education. Since the investigation centres on the TVET lecturer experiences of teaching with or without pedagogy, it is necessary to design or

provide particular examples to enhance their knowledge of PCK, because PCK refers to an impetus to grasp the teaching methods that lecturers and teachers use when they present exercises on explicit topic content; thus PCK is imperative to each lecturer or teacher.

Considering the above paragraph, Shulman (1986) introduced a model that indicates three elements of PCK, which are content knowledge (CK), pedagogical knowledge (PK), and PCK. The original model is shown below.

Figure 1 Shulman's PCK model



Source: Enqvist, 2015:4.

2.6.1 Content knowledge

According to Shulman (1987), "content information" is the knowledge that lecturers possess on the topic that they are teaching. McNamara (2000) states that information on subject content is fundamental for education, yet in addition to the assessment of student-educator teaching material, for instance, course readings, lecturers derive their substantive knowledge from the scholarly abilities they have studied the subject content gives lecturers certainty to stand before the class and teach because they have practical experience in their fields. As expressed earlier, a professional educational programme prepares students for the real world of employment, and content information is critical to teaching with the goal of laying important foundations that will be valuable for application at a later stage. TVET lecturers with subject knowledge make their classes more

interesting because they provide rich subject content and are not limited by reading material.

The content information is distinct from the educational programmes' information. Information about educational programmes is what should be taught to a certain group of students. It necessitates an understanding of a student's ability to learn, national approved programmes, TVET college organising reports, and annual plans. Also, all the educational programme planning and other important approaches should be thought through (Chakroun, 2019:3).

2.6.2 Pedagogical knowledge

The academic information base of lecturers contains all the necessary psychological information to make teaching and learning conditions feasible. Differentiating the content of this material source is a massive undertaking the significance of this method is that it is concerned with how evidence is recognised or, later, to indicate its implementation (Guerriero, 2015:10; Shulman, 1986).

TVET college lecturers are required to exhibit information on the classroom board to supplement the teaching time by teaching at a regular rate and providing regular exercises. Lecturers should be knowledgeable about diverse methods, knowing the appropriate time and how to employ each approach. Information pertaining to classroom appraisal is crucial: evidence on a variety of arrangements and incentives supporting progressive and summative assessments, as well as material on the way different frames of reference (including societal, individual, and rule-based ones) influence how understudies are inspired. Structure is also important, including structuring learning objectives and the exercise process, planning exercises, and managing diverse learning groups in the study hall (Guerriero, 2015:5–6).

This type of information is important for a TVET class, because it could intensify the students' support as learning will be all-encompassing and adapted for every student in a TVET class.

2.6.3 Pedagogical content knowledge

PCK organises teaching and learning with the subject content. It alludes to how the educator deciphers the topic information with regard to encouraging learning (Shulman, 1986). TVET lecturers' unique information regarding subjects is the content information. They are professionals in their distinct fields of study, and the information they possess is passed on to their students. They could use their subject content information to teach; however, their teaching cannot be significant if they do not apply an appropriate teaching method.

Shulman (1986), highlighted that while arranging the information base for teaching, observing how the content or topic is presented and described is a crucial constituent in the conception of PCK. He adds that this knowledge might start with teaching experience. Shulman's classification of the knowledge base for education includes a variety of elements, such as paying attention to strategies that could be effective in improving students' comprehension, and their biases and erroneous perceptions of a particular subject (Shulman, 1986:12).

Although Shulman's PCK fits in the professional setting, it may be amended to fit the vocational setting, since it includes a broad teaching method.

2.7 Knowledge competence of TVET college lecturers

TVET lecturers need to have a good understanding of the subjects they are teaching, as well as the vocational fields that their students are interested in. They should be able to provide guidance and support to help their students succeed. In addition, TVET teachers need to be up to date on the latest industry trends and developments, latest curriculum developments and policy frameworks, so that they can pass this knowledge on to their students**.**

2.7.1 TVET curriculum knowledge

TVET college lecturers need to have extensive knowledge of the curriculum in their subject specialisations as part of their competence. They need to know how to teach the subjects, how to select, sequence, and pace content in accordance with both subject and learner needs, and how to integrate the teaching of

knowledge, practice, and affective attributes (DHET, 2013:36). This is in line with the PCK discussed by Shulman (1986): teachers need to have content knowledge coupled with relevant pedagogy, which will assist in the selection of accurate teaching methods. A teacher's knowledge is extremely important in a TVET setting; they must have a deep understanding of the subject matter to teach it effectively to students. In addition, a teacher must also be able to understand the different learning styles of students and how to best accommodate each one. Lastly, a teacher must be familiar with the various assessment methods available and know how to use them to accurately assess student progress. This is the reason why TVET college lecturers need to be competent in all elements of PCK.

2.7.2 Knowledge of TVET students and their characteristics

In addition to having teaching skills, it is critical for TVET college lecturers to understand their students and consider their varied learning needs. Professionally qualified TVET lecturers must be aware of the diversity of their students' socioeconomic status, age, culture, life, and work experiences, learning preferences, and special educational needs. They must then use this understanding to modify their teaching and learning strategies to take this diversity into account when they are teaching (DHET, 2013:40).

TVET students have a wide range of personality traits. Some pupils might come from a less privileged socioeconomic background, while others might not. However, all TVET students have the same objective in mind: acquiring the knowledge and skills required to be successful in the workforce. The majority of TVET students are dedicated and driven. They frequently have a strong desire to tackle difficult jobs and learn new things. They are, therefore, ideal candidates for careers in the trades. TVET students typically possess strong problem-solving abilities and the capacity for critical thought. This enables them to troubleshoot issues they might run into at work. Hence it is important that their characteristics are known by their lecturers, as this knowledge will help to shape classroom teaching and learning.

2.7.3 Knowledge of educational contexts in TVET

Qualified lecturers must have a thorough understanding of the South African TVET environment, including the policy environment and contextual realities, in order to be able to adjust their teaching practice (DHET, 2013:40). The South African TVET system faces numerous challenges, which include a high unemployment rate, significant income inequality, and restricted access to top-notch education. Despite these challenges, TVET nevertheless has a big impact on the country's educational system. Students have the chance to learn practical skills that can help them in their hunt for employment.

TVET colleges also give students a way to get into higher education. The TVET sector in South Africa is distinct and intricate. There are numerous distinct players in the sector, all of whom have different interests. There are several commercial suppliers, such as Sector Training and Education Authorities (SETAs). However, the government is the main source of funding for TVET institutions. High levels of inequality characterise the TVET environment in South Africa. The quality of schooling varies significantly between wealthy and poor students. Rich pupils are more likely to enrol in schools with excellent resources and qualified lecturers, while poor students are more likely to attend institutions with limited resources and unskilled teachers.

2.8 Conclusion

This study employed Shulman's theory of PCK. Shulman states quite categorically that every teacher needs to be a subject specialist and curriculum specialist as well as a PCK specialist to be able to deliver instruction. Different types of knowledge that TVET lecturers need to possess for them to be competent were also discussed.

The next chapter presents a review of the literature that relates to this study, guided by the research questions indicated in Chapter 1.

CHAPTER 3 LITERATURE REVIEW

3.1 Introduction

The previous chapter presented a discussion of the theoretical framework that underlies this study. This chapter presents the relevant literature sourced for the study and aims to answer the research questions by providing literature that relates to the subject under investigation. In addition, this chapter presents both international and national literature that was reviewed on pedagogy and vocational pedagogy, as well as the international and national perspective on teacher qualifications.

Having provided a brief history of technical education in South Africa in Chapter 1, it is necessary to examine the advances made globally regarding TVET as well as the state of TVET in South Africa. To reiterate, many lecturers in TVET colleges lack the necessary teaching pedagogy to deliver vocational curriculum. The literature that has been sourced will clarify if there is a need to be trained or retrained to improve the competence of TVET college lecturers.

Mouton (2011) claims that one of the first aims of the researcher should be to establish what has been done in the chosen area of study. The researcher began with a review of the existing body of knowledge to examine how scholars had investigated the research problem in question and what they had found. The main aim of the review was to learn from other scholars how they have theorised and conceptualised the pedagogy of TVET college lecturers, what they have found empirically, what instrumentation they have used, and to what effect.

3.2 The conceptualisation of vocational education and curriculum

It is essential to start with discussion of the concept of ‘vocational education’ and the curriculum for vocational education to address the research questions of this study. VET plays a key role in training young people for the workplace, thereby developing the skills of adults and responding to the labour market needs of the

economy (Sermuka, Chianchanab & Stirayakornc, 2014:1896). To compete on the quality of goods and services provided, countries require a well-trained workforce with a range of mid-level trade, specialised, and proficient abilities, in addition to those significant level aptitudes related to college instruction and a scholastic educational programme. Typically, these abilities are communicated through professional projects taught by professional educational programmes (Organisation for Economic Cooperation and Development, 2010).

Vocational education has a dual purpose: to prepare students for the world of work and to give them the foundation to further their studies (Lucas, 2016:6). The above paragraph asserts that this curriculum transfers skills to youth through training and skill development. In a broader sense, this means that it should be viewed as one of the tools aimed at reducing poverty and unemployment among youth who are not in school or working. In the vocational curriculum, skills transfer is crucial, so lecturers need to be competent in delivery of the curriculum. Employing the relevant pedagogy in vocational teaching will ensure that teaching is fulfilling its expectations, and students will be well prepared for both vocational curriculum outcomes as stated above (Fedorova & Tretyakovaa, 2016:9816). Considering that the purpose of this study is to establish the importance of pedagogy as a prerequisite for lecturers at TVET colleges and the importance of preparing students for the workplace, it is imperative that students are prepared to be effective employees, and consequently that teaching in TVET colleges is effective.

VET programmes include education and training aimed at and typically leading to a specific job or type of job. It normally involves practical training as well as the learning of relevant theory and is distinct from academic education (DHET, 2012:5). Many researchers cited the fact that vocational education tends to focus on the desires of society, and therefore professional capability should be developed not as a matter of mere inquiry, but because of its considerable significance for the community. They added that VET should be less deferential about the refinement of the mind and more concerned with the acquisition of skills that are mandatory for the worlds of work, production, and wealth creation. In the

context of an industrialising world, the industrialisation of society and the associated need for skilled labour such as engineers, mechanics, and other technical personnel demands that educational curricula embrace vocationalism. Students are required to engage in learning that prepares them for real life and real work (Schröder, 2019:86; Blanco, Schirmbeck & Costa, 2019:650; Raju, 2006:66).

Mortaki (2012) states that programmes of vocational training are divided into those that are mostly theoretical and those that are practical. The emphasis is on the application of the theoretical knowledge into action, not on its acquisition. The theoretical knowledge delivered is therefore aimed at the acquisition of technical skills and the ability to implement them in certain professions. For that reason, the learning procedure is based on methods such as observation, imitation, and self-correction, in addition to the theory provided by textbooks (Rice & Kitchel, 2019:4; Chakroun, 2019:13). Considering that the theoretical knowledge is aimed at practical acquisition and involves diverse teaching and learning procedures, vocational education lecturers at TVET colleges need to be competent in pedagogy to be able to deliver the curriculum effectively. Their competence will assist them with the choice and application of the correct teaching strategies for delivery of quality vocational education (Wuttke & Seifried, 2017:8).

The fundamental aim of VET, according to Mortaki (2012:77) and Mpu and Adu (2019:1) is the transmission of exploitable knowledge for participation in the labour market. VET is connected to specialisation in a certain practical field and takes place at different levels of education. Although VET is a different category of education, it is conducted at the secondary, post-secondary, and tertiary levels and is organised by various bodies (Grosch, 2017:8). A common feature of all levels that offer VET is that it prepares the participants for involvement in the professional space. It should be added that the qualities of VET are shaped according to social changes and the specialties offered, thus aiming at the development and application of knowledge and skills for middle-class professions, as dictated by current needs (Van der Bijl & Oosthuizen, 2019:208). Such training is also aimed at preparing students for the workplace and upskilling those who are already employed or considering returning to the labour force.

The vocational curriculum should be linked to the world of work. Currently, that is not realistic, as it is the DHET that owns the vocational curriculum; colleges are only the delivery sites for the department. Papier (2017) states that the vocational curriculum does not talk about the world of work, and one major reason for this is that only curriculum specialists employed by the department are involved in the vocational curriculum review. According to the *Government Gazette* (DoE,2008:20), at the core of the vision for a TVET system is the concept of a national coordinated TVET college system that offers qualifications registered at Levels 2–5 of the National Qualifications Framework (NQF). Such qualifications must comply with the General and Further Education and Training Qualifications Framework, the Occupational Qualifications Framework, and the Higher Education Qualifications Framework, depending on the level and NQF sub-framework of the qualification. Colleges do not have the autonomy to develop a curriculum that will respond to the needs of the community (Ormond, 2017:6). This means that the major purpose of the vocational curriculum is compromised.

A major intention of vocational education is to prepare students to be specialists, so that when they enter the labour market they are well equipped. Field, Hoeckel and Kuczera (2009) highlighted the fact that, within VET programmes, a good balance between generic and specific skills is vital. VET graduates need the occupationally specific skills that will allow them to enter skilled jobs without lengthy additional training. They also need generic, transferable skills to carry them through their working career, including the ability to adapt to fast-changing workplace requirements. Vocational education includes courses and programmes that teach important and valuable skills to a very high standard. It offers a direct route into higher education, which has been followed by hundreds of thousands of young people, and prestigious apprenticeships, which are massively oversubscribed.

Wolf (2011) added that conventional academic study encompasses only part of what the labour market values and demands, while vocational education can offer different content, different skills, and different forms of teaching. As a result, good

vocational programmes are respected, valuable, and an important part of our and other countries' educational offerings (Wolf, 2011:18). This requires competent TVET college lecturers to provide diverse forms of teaching as expected by the vocational curriculum, and would require an in-depth knowledge of relevant teaching methods. Accordingly, the best vocational education is broadly hands-on, practical, experiential, real world, and often simultaneously involves feedback, questioning, application, reflection and, when required, theoretical models and explanations (Wheelahan, 2010:20).

The literature reviewed above revealed that a vocational curriculum has a mandate for imparting skills to its students in preparation for the world of work. This work of cultivating skills lies with TVET college lecturers and their competence. The theory they must teach is not for general knowledge, but it lays the foundation for application during or after the learning has happened. The curriculum itself is for doing, hence specialised teaching knowledge is required. Part of what TVET college lecturers need to know is the pedagogy involved in the delivery of this type of curriculum. The section below briefly discusses the first research question, which aims to find out if teaching pedagogies assist TVET college lecturers in their teaching.

3.3 The role of teaching pedagogies in the vocational class

Vocational pedagogy plays a significant role in vocational education and is described by Lucas (2015:7) as the science and craft of teaching and learning vocational education. The concept of vocational pedagogy refers to vocational education outcomes, the individuality of vocational teachers, including examples and likenesses for vocational education (Lucas, Spencer & Claxton, 2012), as well as instruction proficiencies, interactions, lecturer considerations, instructional models, and the context of instruction (Faraday & Cooper, 2011:12). Vocational pedagogy is the combination of several conclusions reached by vocational lecturers regarding how they deliver their lessons, with various methods to meet the needs of their students and appropriate to the learning circumstances. In Lucas' (2014:2) opinion, "Vocational pedagogy is under-researched and under-

theorized". VET is frequently regarded as less important than academic education.

There is ongoing debate regarding the best way to teach vocational education. Lucas (2014) states that a clearer vision of VET pedagogy is important, because it can stimulate reflection on VET's broader goals and thereby improve its image. Furthermore, vocational teaching allows teachers to create models that will assist VET teachers in conducting effective teaching and learning. As a result, vocational teaching can influence the quality of teaching and learning (Kelly, 2015; Lucas, Spencer & Claxton 2012; Lucas, 2014). It is vital for TVET college lecturers to possess specialised abilities and proficiencies in deciding whether their presentation of lessons is successful in their presentation in their areas of specialisation. Abdullah, Hoque, Ralman and Shaffee (2019) acknowledged understanding, skills, values, and attitudes as elementary competences which are the fundamentals of professionalism and generic skills required by a lecturer or teacher in TVET colleges. They add that the ability of an officer is referred to as "skills" for the continuous improvement of knowledge to improve the individual's presentation (Abdullah et al., 2019: 14). This refers to the ability to use and practice skills to gain understanding and perform tasks to achieve organisational goals. In contrast, personal attributes refer to personal values and behaviours that civil servants need to work on and practice (Schröder, 2019).

Pedagogical skill is one of the competency skills that TVET college lecturers should have to excel at their teaching tasks and achieve the TVET college teaching and learning targets and outcomes. The sub-sections below discuss the concepts of pedagogy and its role in vocational teaching:

3.3.1 Pedagogy in vocational education

Pedagogy is defined as the science, art, and craft of teaching (Lucas, 2016). In addition, it comprises primarily the choices made to create wider education principles where instruction occurs (Van der Bijl & Oosthuizen, 2019:206). Lecturers make decisions about education principles, which are heavily influenced by the lecturers' choices, both advanced and daily approaches, as well as the ethics that govern all interactions with students. These decisions include

the details of the lesson planning that the teacher will use, and the teaching-specific practices and processes by which knowledge is produced, skills are developed, and habits of mind are cultivated (Lucas et al., 2012:45). Kosnik, Menna, Dharamshi and Miyata (2017:59) add that the science of training is a master plan that includes methods, teaching tools, and keys to learning outcomes. What the learner is learning and what they are expected to learn at a particular stage of their education determines the actual outcome and the appropriate course of action.

The above definitions of vocational pedagogy indicate that pedagogy plays a vital role in every aspect of teaching. It assists those who teach, including TVET college lecturers, to develop meaningful instructional outcomes from planning to evaluation (Lubis, 2010). It is also confirmed that with a knowledge of pedagogy, the mind of a learner is cultivated completely by providing both knowledge and skills; however, the vocational curriculum emphasises skills. This definition also links pedagogy to the vocational curriculum, because the aim of the vocational curriculum is to develop the skills of students for employment purposes; Lucas (2016:5) refers to "vocational education" as "the sciences, arts, and techniques of teaching and learning vocational education". Put more simply, vocational pedagogy is the sum of many decisions vocational teachers make in teaching, adapting their approach to the needs of learners and the circumstances in which they find themselves.

Lucas (2014:20) refers to vocational pedagogy as "the art of teaching" and refers to the procedures of teaching, with specific contact with learners, as well as planning and designing learning situations and assessment. This art of teaching ensures that TVET college lecturers can choose and use the appropriate teaching methods that make vocational classes beneficial to empower lecturers and hone the skills of vocational learners, whether in a theory or a practical lesson.

To differentiate vocational pedagogy from other pedagogies, DHET (2009) states that it is a combination of practical and subject knowledge. Typical of the vocational curriculum is the mix of theory and practice and the acceptance that the ability to solve problems is intrinsic to any type of skilled work. Whether the

problem is solved mentally, by any other means, or in a practical manner, it is still solving a problem. One of the key challenges of vocational pedagogy is bringing the ‘abstract’ (theory) and the ‘situated’ (practice) together. In addition, DHET (2009:15) asserts that there is no straightforward connection between the two, yet one requires the other. Lucas et al. (2012:22) view vocational pedagogy as the strategic planning of classroom talk, activities, challenges, groupings, environments, role models, and accessible resources.

According to the research, vocational pedagogy has received little attention, both worldwide and in South Africa. Hagar (2004:5) stated that discussions of vocational pedagogy are relatively uncommon in other countries, such as England, claiming that there are a few academic and third-level centres with a steadily increasing use of vocational pedagogy, as well as few academic and legislative documents that focus on vocational pedagogy.

Since there appears to be limited research conducted on vocational pedagogy, it is anticipated that this study will add to the existing body of knowledge. Even vocational teacher qualifications, wherein vocational pedagogy should be taught, are not widely offered by institutions of higher learning, leaving TVET college lecturers with limited options to develop their knowledge of vocational pedagogy. Lucas (2016:7) argues that being explicit about the essence of vocational pedagogy is important, because it forces scholars to consider the larger aims of vocational education and, as a result, improves its prestige and breadth. It also assists teachers in understanding why vocational education is a viable option.

If vocational pedagogy is understood expansively, researchers are enabled to develop paradigms and means that could assist lecturers in successfully complementing teaching and learning approaches to satisfy the needs of their students and the situations in which they work. If understood comprehensively, vocational pedagogy is a procedure that enables the creation of models and approaches to assist teachers in arranging teaching approaches to meet the needs of students as well as of the working environment effectively (Lucas, 2016:7).

Vocational education teachers are employed from two professional worlds; likewise, vocational teaching situations traverse both education and the world of work. However, if the location is a college classroom or a workplace, the physical features of any intended location of learning influence the teachers' selections regarding pedagogy. DHET (2012:6) asserts that in respect of subject expertise and vocational pedagogy, the existing staff's qualifications are of very diverse levels and types, extending from formal teaching qualifications or degrees to trade qualifications, or both trade and theory qualifications, or industry qualifications; however, they lack teaching qualifications. Lecturers with industry experience have the requisite practical skills of workshop training, but do not have the theoretical knowledge which is needed for classroom teaching, whereas lecturers from teaching backgrounds have theoretical knowledge for classroom teaching but lack the requisite practical expertise of workshop training (Boka & Paterson, 2016:51).

Harkin (2012:5) suggests that it may be beneficial to think of vocational pedagogy as a set of overlapping pedagogies for learning, dependent on topic area, level, learning place, and learner age. There is no 'one size fits all' solution. There is broad agreement that successful vocational learning teaching techniques are based on genuine work challenges and situations, and are guided by teachers and trainers with recent and relevant practical experience. There is an emphasis on the importance of TVET college lecturers having both relevant practical experience and relevant teaching pedagogy in addition to their content knowledge. In a workshop setting, for example, it could be simple to allow vocational learners to progress to directed preparation, cooperative inquiry, and performing a skill utilising professional apparatus. Teaching approaches are associated with every subject, guided by the teaching outcomes. Consequently, it is imperative for TVET college lecturers to be competent (professionally qualified) to achieve vocational instructional outcomes per subject.

To sum up, vocational pedagogy allows academics to create models and tools that may assist TVET teachers in better matching teaching and learning approaches to the requirements of their students and environments. By using

such methods, vocational pedagogy may have a direct influence on the quality of teaching and learning (Lucas, 2016:6).

Zubac (2020) adds that the implications for vocational curriculum and pedagogy are manifold. The vocational curriculum and pedagogy can provide a starting point for deciding on the formulation of levels for the vocational curriculum's goals and on what basis adaptability should be considered, what should comprise bases for assessment, and how the provision of learning vocational practice best proceeds. Instead of general pedagogy, TVET college lecturers must have vocational pedagogy that is relevant to their teaching.

A number of aspects affect students' success in higher education, for example, the learning situation, teaching strategies, student motivation, and students' understanding of course requirements. According to Wheelahan (2010:9), the teacher determines instructional goals, tools, and tactics, as well as all aspects of the learning environment to be established. Positive learning environments need awareness of numerous elements at work in varied situations. Pedagogical analysis includes determining suitable goals and tactics for specific teaching contexts as well as measuring actual learning capabilities.

Quality teaching is extremely interrelated with the use of effective pedagogical practices to transfer learning to students. It involves numerous dimensions, such as designing an effective curriculum and course content, the use of a variety of learning contexts (guided independent study, project-based learning, collaborative learning, experimentation, etc.), soliciting and using feedback, and effective assessment of learning outcomes. It also involves well-adapted learning environments and student support services (Biku & Demas, 2018). Wheelahan (2010:37) adds that successful teaching requires a broad vision of the requisite tasks and methods to achieve particular aims. He points out that the lecturer is enabled through creation of the learning environment to communicate separate units of information pertaining to life and the workplace, practice, and acquiring skills, as well as to convey facts as an element of a greater ordered skill Awareness of precise aims made possible by thorough organisation is a consequence of effective teaching.

Pedagogy allows teachers to decide what they want to achieve, as guided by the learning outcomes, how they want to achieve it, and when they want to achieve it. It gives them the ability to create a conducive learning environment that will benefit every learner. Teachers who understand vocational education pedagogy can create a learning environment in which students can associate classroom knowledge with real-life situations. In addition, vocational education pedagogy can expand learning through learning in workplaces, where learners are taught implementation of the theory they have learned. TVET lecturers may take the learners to visit fields that relate to their qualifications for a day or two. The main aim would be to get a feel of the real world. Simulation can also be used as a vocational pedagogy, where teaching and learning happens in a simulation class or a workshop. This implies that for every teacher, including TVET college lecturers, pedagogy as a science of teaching is an important attribute to achieve quality teaching. The next section focuses on the necessity of vocational education pedagogy in TVET colleges.

3.3.2 The necessity of vocational education pedagogy in TVET colleges

Considering the meaning of teaching methods and how they are essential for TVET college lecturers, there can be no confirmation that the teacher is truly applying the correct teaching strategies in the classroom. According to Bhowmik et al. (2013), who concur with Lucas (2016), pedagogy is a teaching science that fulfils two major aims in the planned responsibilities of a teacher's employment: to enable teaching to go as smoothly as possible, and to provide the greatest amount of predicted superior teaching results (Bhowmik et al., 2013).

They elaborate on the above objectives, stating that a teacher has content material and learning experiences related to the subject. Consequently, being a successful teacher depends on the extent of achievement of the teaching aims and objectives. If the teacher uses suitable methods, techniques, strategies, and aids, and follows the principles to achieve teaching outcomes, effective teaching may be achieved. The evaluation of teaching outcomes should be an ongoing system. The appropriate feedback is achieved through evaluation to make

amendments to the techniques and materials employed in teaching where necessary, in addition to explaining the need to modify the teaching objectives (Bhowmik et al., 2013:4; Papier, 2017; Grosch, 2017).

A sound knowledge of pedagogy assists teachers and TVET college lecturers to achieve the expected maximum outcomes planned per lesson and per instruction or subject (Chakroun, 2019). The success of the lesson depends on the teacher's ability to employ meaningful teaching methods that are entrenched in teaching pedagogy (Biku & Demas, 2018). However, this is difficult to achieve if a teacher does not have the requisite teaching pedagogy. All TVET college lecturers should have relevant pedagogy to help them achieve their instructional outcomes, as well as the necessary teaching methods for delivering the vocational curriculum. According to Lucas et al. (2012), pedagogy is used to prepare learners for life in the broadest sense by recognising the relevance of prior experience and learning, and enabling learning to scaffold (Lucas et al., 2012). Pedagogy is one of the important skills that TVET college lecturers require to achieve the teaching outcomes highlighted in the vocational curriculum conceptualisation.

The next sections discuss how relevant are the teaching pedagogies entailed by general teacher qualifications that are currently offered by HEIs to the vocational setting? This is the second research question of this study

3.4 The importance of pedagogy at TVET colleges

The previous sections discussed vocational education pedagogy, which is the pedagogy that TVET lecturers should possess if teaching and learning are to be effective. This section discusses the importance of vocational education pedagogy and how it will help students at TVET colleges to grasp the abstract theory they learn in class as per the vocational education definition. Teachers are expected to be experts in their jobs, having knowledge of PK, CK, and PCK; however, there are several TVET lecturers who lack the above. Although this might be conjecture regarding lecturers' qualifications, it is a reality that must be faced. According to Lucas (2016), pedagogy plays a significant role in teaching and learning, as lecturers would benefit from understanding the goal of vocational

education and students would benefit as a result. The goal of vocational education is to help people do things in the workplace – it is not enough to be able to write or talk about such things, as in more regular school education (Lucas, 2016:2).

As mentioned above, it is important for a lecturer at a TVET college to possess a knowledge of PCK. To recognise a lecturer with this attribute, which would make him/her a teacher with expertise, begs the question: "What does teacher professionalism involve?" (DHET, 2013). The literature stresses several aspects that typify the qualities of proficient teachers: wide-ranging PCK, excellent problem-solving approaches, enhanced adjustment for learners' diversity, enhanced decision-making, improved insight into classroom events, immense sensitivity to context, and exceptional respect for students (Lucas, 2015:9). In addition, research highlights the fact that disparity in the prospects for learning in the preparation of teachers is associated with disparities in student attainment (Biku & Demas, 2018: 3). Although teacher knowledge is an important element of expertise, it also comprises skills, approaches, and enthusiasm for teaching and learning. Next follows a discussion of the abilities of teachers who possess pedagogy.

3.4.1 The role of vocational education pedagogy in classrooms

Effective teaching requires conceptual knowledge, content knowledge, pedagogical knowledge, teacher enthusiasm, and the ability to reflect on practical issues. These qualities need to be ingrained so that teachers can confidently apply conceptual knowledge in practice (Guerriero, 2016:5; DoE,2007:24). Subsequently, the above researchers provide evidence that subject content knowledge alone is insufficient; however, possessing a knowledge of pedagogy will enable TVET college lecturers to integrate the content knowledge and reflect on their lessons.

Wang (2012) adds that experienced and qualified teachers are interested in sharing what they know. Moreover, they are knowledge-intensive; over the past two decades, knowledge sharing has become a very acceptable concept, and it is being researched worldwide (Wang, 2012:12; Fahrman, Norström, Gumaelius

& Skogh, 2020:166). Teachers can continuously observe and assess students in the classroom because of pedagogy; for example, the collection and interpretation of diverse evidence to evaluate the level of each student regarding learning and development, and to discern the way to proceed from assessment to decisions pertaining to the curriculum, social support, and teaching strategies, to foster prospects for effective learning (Bhowmik et al., 2013:5). Therefore, pedagogy offers great possibilities to enhance the communication of information in every type of education. It includes several rational phases to arrive at a rational interpretation, as well as assisting students to comprehend concepts, principles, or phenomena (Wheelahan, 2010:33).

TVET college lecturers in general assume that they need to be subject specialists in order to be able to lecture. The first chapter also revealed that many TVET college lecturers are focused on content but lack teaching qualifications. The above authors argue that if a lecturer qualifies in mathematics, he is a mathematician. However, he lacks the teaching pedagogy that is an essential element that will enable him to incorporate different teaching strategies that will help to impart both knowledge and skills required to teach mathematics. In addition, pedagogy allows teachers to create a conducive learning environment and thus improve learning, making it as important as content knowledge and any other knowledge that lecturers must possess to be competent.

3.4.2 Lecturers who possess vocational education pedagogy

As discussed in the previous chapter, pedagogy plays a significant role in teaching and learning, and it is recommended that teachers possess this attribute, as pointed out by Shulman (1987) and Lucas (2016). Lecturers with knowledge of pedagogy are confident in the classroom, because they have knowledge of the subject content, and the methods for teaching the subject, as well as curriculum knowledge. Lucas et al. (2012) claim that teachers with pedagogical knowledge are highly skilled and enthusiastic. In addition, they use extensive expertise to inspire a culture of learning and challenge their learners. They are effective in planning, which leads to brisk, lively, and imaginative teaching that ensures that learners' diverse needs are met. They have high expectations of their students, checking in on their progress frequently, asking probing questions, and assigning

work that is appropriately challenging. They involve learners in evaluating and reflecting upon their learning so that they learn quickly and make good progress, as well as identifying learners who need additional help and providing effective support promptly.

It is evident from the above that teaching becomes simple, interesting, and learner-centred when teachers have pedagogical knowledge, which leads to good teaching. If TVET college lecturers possess the relevant teaching pedagogy, vocational classes would become meaningful, outcome-based, and accommodating. This will result in learners who are motivated, engaged in learning, and satisfied. Once learners are satisfied, there will be a low rate of dropouts, and there will be progression within the education and training system (Chróinn, Fletcher & O'Sullivan, 2018:7).

The goal of higher education vocational training is to foster craftsmanship, and implement enjoyment and possible problem-solving in addition to preparing people for occupations in higher degree technical, certified, and managerial positions through the provision of job-specific expertise (European Centre for the Development of Vocational Training (Cedefop), 2012:8; Organisation for Economic Co-operation and Development (OECD), 2012). Higher education must enhance students' knowledge, skills, and attitudes while also empowering them to become lifelong, vital, and reflective individuals. There were diverse conceptualisations bearing on vocational training, and the phrases 'vocational', 'occupational', and 'professional' have given an upward push to understanding of vocational training.

The VETNET ECER Proceedings (2019, cited in Sarikaya Erdrem & Yildrim, 2019:366-367), states that its purpose is to provide a novel and unitary description of vocational education (Billett, 2011, cited in Cedefop, 2012); consequently, powerful vocational coaching and mastery become a problem without pedagogy. Cedefop (2015) conducted research into vocational pedagogies and the benefits for learners' practices and demanding situations in Europe, and determined that pedagogy was most beneficial. They determined from their survey that some pedagogical factors had been welcomed with the help

of the students, such as adaptive training and modelling, construction-induction, education, self-regulation, authenticity, mirrored image, and vocational identity

Lecturers with the deemed necessary vocational education pedagogy may be capable of incorporating those factors in coaching and imparting mastery. Student pride ranked very high, and they attributed this to customised support, effective education, and organisation work (construction). It is obvious that scholars gain from academics who have vocational education pedagogy. The scholar interviews indicated excessive attainment, which showed that there has been a high-quality hyperlink among the coaching and mastery strategies gained with the aid of hiring academics (Cedefop, 2015:14).

The above paragraph confirms that teaching becomes effective once the correct instructional outcomes and instructional methods are chosen and applied correctly during teaching when pedagogy is present. This means that every TVET college lecturer must understand teaching pedagogy in order to create effective instruction for their classes. Good teaching promotes the holistic development of learners' knowledge, and learning outcomes are best achieved through good planning.

3.4.3 Teachers who do not possess vocational education pedagogy

A discussion of teachers who do not possess vocational education pedagogy and the consequences thereof for teaching and learning follows. From the above discussion of teachers who possess vocational education pedagogy, it is obvious that there are very positive results regarding teaching and learning. The study conducted by Cedefop (2015) spanned ten countries in Europe and found that the majority indicated the need for vocational education pedagogy.

The discussion that follows focuses on lecturers' lack of vocational education pedagogy. Firstly, it is relatively easy to identify lecturers who do not possess vocational education pedagogical knowledge; these lecturers talk incessantly, thus suppressing learners' contributions. The content that is delivered lacks imagination, and the questioning is seldom challenging enough to encourage students to deliberate and create knowledge pertaining to the answer, or to

research, explore, or communicate their ideas independently. Learners remain unchallenged, and their own expectations of what they might achieve are not adequately extensive. The teaching is pedestrian and uneventful; as a result, they lose interest and their progress is hindered (Lucas et al., 2012:53).

Sirk, Liivik and Loogma (2016:61) state that VET teachers in Estonia have realised that professional, pedagogical, and social knowledge are prerequisites for teaching. Considering that there is a dearth of research on the subject, apart from research that shows that learner-centred pedagogies are associated with higher levels of student engagement, there is relatively little literature that examines the impact of vocational pedagogy on learners. The study found statistically significant correlations between methods of teaching and learning (such as group work, authentic and interactive learning tasks linked to the future occupation, well-tailored support), and perceptions of achievement, progression, motivation, and likelihood of dropout (Cedefop, 2015). The class without vocational pedagogy becomes uninteresting to learners and instructional outcomes cannot be instantly attained while teachers do not care much about student involvement during lessons. Teaching becomes teacher-centred, as if the teacher is the only one who knows the instructional content. They are careless in achieving instructional outcomes. Biku and Demas (2018) confirm that the lack of relevant pedagogical training of TEVT college lecturers often leads to maintenance of the ancient methods of teaching, which often focus on the teachers instead of the needs of the students, and on the subject matter instead of the transfer of knowledge.

3.4.4 Teaching qualifications of TVET lecturers

Teaching in a TVET college requires lecturers to have a sound knowledge of vocational pedagogy to deliver the TVET curriculum. However, the formal offering of programmes for college-based lecturers is relatively limited, and there is very little literature on technical and vocational teacher education in South Africa. One reason for the scarcity of dedicated programmes is that, until recently, there was no policy governing what type of educational training was required for TVET college lecturers. The now-gazetted framework for new qualifications envisages that all lecturers will progressively improve their qualifications up to graduate

equivalence. It requires that all lecturers become qualified educators and do not just have relevant work-oriented qualifications (South African Qualifications Authority (SAQA), 2016:23; DHET, 2014:8).

TVET college lecturers have, for a very long time, opted for general teacher qualifications in the absence of relevant vocational teacher qualifications. This implies that more lecturers who are regarded as professionally qualified have knowledge of general teaching pedagogy. This has been confirmed by Mgijima, the DHET, and other authors, as cited in Chapter 1. However, this new gazetting still has a gap, as it does not cater for the pedagogical gap inherited by TVET college lecturers from the general teaching qualification. The sub-sections below discuss the unsuitability of general teaching qualifications for vocational teaching.

3.4.5 Defining TVET college lecturers

TVET college lecturers are educators who teach at a TVET college. This view emanates from the South African Council for Education Act, where an educator is defined as any person who teaches, educates, or trains other persons or who provides professional educational services, including professional rehabilitation and educational psychological facilities at an institution. The same definition of an *educator* is found in the Employment of Educators Act, 1998 (Act No. 76 of 1998) and the Further Education and Training Act, 1998 (Act No. 98 of 1998), as cited through a number of cross-references (South African Council for Educators, 2011).

Vocational teachers are required to be proficient in two disciplines (work as well as education) and to possess dual attributes that combine solid education and financial originality, placing them in a precarious position between ‘industry experts’ and ‘expert educators’, despite being displaced from both traditional locations, the place of work as well as the classroom (Zinn et al., 2019). TVET college lecturers were originally hired under the Educators Act (1998), were moved to college councils under the FET Act (2006) in 2007, and are currently recruited under the Public Service Act under the DHET. TVET college lecturers were referred to as educators because of the background given above.

As per Zungu and Munakandafa (2014), the teacher's role is to assess students' abilities and adopt suitable tactics to help them advance to the next stage. This necessitates lecturers' ability to adapt diverse pedagogical techniques as well as sector experience to give comprehensive education (Zungu & Munakandafa, 2014:31). A TVET lecturer's major concentration is on programme conception, preparation, and delivery to accomplish student goals. Furthermore, TVET teachers should use serious thought and investigation to develop skills and knowledge to educate learners successfully as well as enhance their knowledge. The school teacher's involvement in the college programme expands outside the classroom as he or she gains experience (Victoria State Government, 2016:7).

A TVET college lecturer is a person who helps learners acquire knowledge, skills, competence, and values. Since the central tasks include the preparation of lessons according to the learning outcomes of a particular subject, delivering lessons, and assessing learners' progress, a lecturer must incorporate vocational pedagogy. These tasks will never be easily achieved if the TVET college lecturers do not have a knowledge of vocational teaching pedagogy, especially during planning and preparation. The literature reveals that lecturers find themselves being neither industry specialists nor education specialists, and many lecturers do not have teaching qualifications (Mpofu & Maphalala, 2018).

3.4.6 TVET college lecturers' job description and competence

Teaching responsibilities for TVET college lecturers are described as all work responsibilities faced in the process of their actions related to student teaching. These activities include class management and lesson delivery; lesson planning and preparation; procurement of audiovisual and other materials as well as technology; evaluating and reporting learning outcomes; and maintaining classroom order as needed to foster a healthy learning environment (Booyens, 2009:9).

Additionally, there is an implication of an expectation for a TVET college lecturer to perform any supplementary responsibilities that may be assigned by the head of the institution (Loo, 2018:5). TVET college lecturers' everyday job is to give instructional learning to learners. As previously discussed, giving instruction

requires them to be professionally qualified, as it is guided by some pedagogical principles, to competently execute all their tasks (Maguswi, 2012:10).

The *Government Gazette* (DHET, 2014:9.) focuses on the professionalism of TVET lecturers and describes the competences and the requirements for the various areas of the Curriculum of Professional qualifications of TVET college lecturers. Linguistic competence, theoretical and practical expertise, and knowledge of central vocational requirements in the workplace are regarded as essential. This knowledge and these skills are to be gathered, collected and dispersed into several different training programmes. However, there is no additional explanation on specific learning content, how this professionalisation will transpire, nor how the training will be conducted. The Higher Education Quality Council is responsible for the certification of university courses, which are to be familiar with the Policy on Professional Qualifications for Lecturers in Technical and Vocational Education and Training (Zinn et al., 2019). Having the requisite qualifications is important, but the competence of TVET college lecturers is equally important. Below follows a discussion of the competencies of TVET college lecturers.

3.4.7 The competencies of TVET college lecturers

It is essential for effective faculty to have adequate resources to work effectively in the classroom. Competence is an integrative concept of what a person is capable of and is most often referred to in the literature as a powerful combination of knowledge, understanding, and ability (Kansanen & Meri, 2015:6).

These key concepts are also true for the teaching profession. For example, according to the European Trade Union Committee for Education (ETUCE, 2008:23), teaching ability is the ability to supply information integration, to overcome difficulties, and to respond to the individual desires of scholars and teams. The Union defines teacher qualifications by accentuating the performance expected to be shown, to fulfil a selected task or role. Because the number of teaching qualifications can affect students' learning, academics, and also the consistency of learning, competencies, and characteristics, it is a requirement

that academics possess a teaching qualification; this has been mentioned globally (ETUCE, 2008:2). In addition, teaching competencies are not only what teacher trainees learn during their studies but also the extent to which a particular employee is personally equipped for working in the teaching profession.

Competence is divided into the following three components: professional skills in pedagogy, teaching, and psychology; performance capacities related to work capacity, physical capacity, and coping with stress; and personal competence related to quality of will, personality, interpersonal skills, effective communication, and interpersonal relationships. Moral ideals are also necessary, and are social skills related to a career of value. Finally, identification with and fulfilment of the teaching profession are identified as motivational competencies (Gabrhelová & Pasternáková, 2016:101). A trainer's ability to deliver good professional training is very important.

Competent lecturers should provide a positive learning environment to TVET students and simultaneously be capable of influencing a constant learning environment in the classroom. In view of the above, it is necessary to return to the current cohort of lecturers who are employed by TVET colleges and who, based on the above definition of competency, lack the relevant teaching qualification. TVET college lecturers need to be discipline specialists, which requires them to have an in-depth knowledge of subject content. However, subject content knowledge alone is not adequate for teaching. Vocational pedagogy is key, as it will sharpen their teaching skills and strategies. Additionally, to complete their competence, TVET college lecturers require practical experience, which will enable them to conduct workshops as well as practical classes. They should also keep abreast of the changes in real-world needs (Lucas, 2016).

Regardless of its antiquity, the study of Banks, Leach, and Moon (1999) is still relevant today. They offered two case studies that highlight the difficulties of learning about teaching, one focusing on the role of the teacher and the other on the notion of "communities of practice". Banks et al.’s (1999) case studies featured teacher trainees at various levels of their teaching growth, and the authors provided circumstances in which the trainees' personal views were

important issues. The first case study comprised two trainees who were brand new to teaching and had a background in technology. They had different ideas about how students should study. According to them, technical issues should be learned in a hands-on way. The second case study had a more experienced trainee, who came from an academic background. While it is not mentioned, it is believed that she held a degree in English, since she was teaching A-Level pupils (Banks et al., 1999:107). Based on the participants chosen, this instance demonstrates the reality of teaching with or without pedagogy. These two situations are significant to this research since some of the respondents were knowledgeable about teaching techniques while others were freshly certified with just theoretical learning, which is referred to as ‘content knowledge’ in this research.

The results of their case studies showed clearly that the pedagogic process involved had been flawed; however, what is not commented on is the fact that while teaching, the trainees had no in-depth disciplinary knowledge of the subject. It was this lack of knowledge that could have been the reason why the lesson failed to engage the students, rather than the inexperienced mentor and lack of "productive access to participation", as Banks et al. (1999:12) suggest. In contrast, the experienced trainee has an excellent working environment, a supportive community of experienced teachers, as well as access to a vast bank of personal "discipline-based knowledge" that, together with other very important factors, results in a dynamic, informative, and interactive pedagogical practice that even the experienced mentor learns from (Banks et al., 1999:108).

The above case studies identify the teaching gaps between teachers with pedagogical knowledge and those who do not have the requisite knowledge. Many researchers confirm these results, while very few have indicated that there is no proof that student success depends on the teaching methods. Both traditional teaching pedagogies and vocational teaching pedagogies are embedded in relevant teacher qualifications. As a result, in addition to their academic credentials, every TVET college lecturer should have a relevant teaching qualification. For TVET college lecturers, the relevant qualification is the lecturer qualification. It is clear from the results of the above-mentioned case

studies that TVET college lecturers who have no knowledge of pedagogy may make pedagogical choices that could possibly be flawed.

Qualified teachers are among a nation's most valuable resources, as they contribute towards ensuring quality education and a continued flow of skilled young people into the economy. Qualified teachers have a noticeable impact on the quality of education (DoE, 2005:46). However, teacher qualifications per se are only one of the input factors for quality education. Teacher competence is a combination of academic knowledge and methodology; academic skills are not adequate to have a positive influence on learners' learning, and a broader teaching competence is also necessary.

Teacher education qualifications vary from country to country, depending on the learning outcomes, and therefore the contents of teaching qualifications have been changing and must conform to the standards of the current curriculum. In Turkey, the Ministry of Education has classified teachers' competencies into two groups: teaching profession broad qualifications, which include knowledge, skill, and attitudes that all teachers must have, and narrow field qualifications that contain knowledge, skill, and attitudes regarding each teacher's own field (Yenmez, Ozpinar & Sahin, 2016). They add that the teaching profession's broad qualifications consist of six competence areas: personal and vocational values (vocational development), student recognition, learning and teaching processes, monitoring and evaluation of learning and development, school-family and community relations, and programme and content knowledge (Yenmez et al., 2016). The teaching, learning environment, and development of secondary and TVET teacher education comprise monitoring and evaluation, personal and vocational development, community relations, arts and aesthetics, the development of language skills, scientific and technological development, individual responsibility and socialisation, physical education, and safety topics (Yenmez et al., 2016). This implies that the teaching qualifications offered by HEIs cannot be a one-size-fits-all solution, as is currently the case in South Africa, where teaching qualifications only prepare people for school teaching.

Cedefop (2015) conducted research into what they referred to as IVET (Institutions of Vocational Education and Training) and indicated that most

European countries are awake to the importance of skilled development as a tool for education change. This is often evident in the attention paid to the importance of vocational pedagogy within the development of teacher training, as is clear from the connections with pedagogic analysis (Cedefop, 2015:72). In Finland, the results showed that the Finns indicated that teacher education was essential and had the capacity to transform the pedagogical views and performances of teachers and schools. In Slovenia, as well as in England, the focus of the nationwide literature is on vocational pedagogy, which has led to its expansion recently. Certain schools in the Netherlands and Slovenia function directly with researchers to foster and examine pedagogies with the intention of schools becoming competence-based (Cedefop, 2015:72). Vocational teachers are expected to have job-related knowledge, knowledge of vocational pedagogy and benefits for learners, practices and challenges in Europe, 73 modules, and at least three years of work experience in the professional sector for which they train. It is pointed out that their preparation for vocational training includes first-hand experience of both work-based training and learner-centred approaches (Cedefop, 2015:72).

A good college lecturer in South Africa must be an expert in a certain occupational area or topic; a respectable teacher or pedagogue; an inventive, informed, and honest assessor; and able to maintain records on student accomplishment and achievement. Furthermore, the lecturer should be a professional who stays up to date on the newest knowledge in his or her chosen occupational field (DHET, 2009:6).

Internationally, a competent teacher has relevant knowledge, skills, and attitudes, whereas nationally, this requires subject specialists coupled with relevant teaching pedagogy. A comprehensive understanding of their subject specialisation is a prerequisite for professionally qualified lecturers, and it is incumbent on them to choose proficiently, manage succession, and manage the content. An in-depth comprehension of the TVET policies and contextual realities, as well as knowledge of the learners' diverse socio-economic backgrounds, age, culture, learning styles, and aspirations, and their special needs, are required (Papier, 2017). Lecturers must be able to communicate effectively in the

languages of learning and teaching, and should manage the teaching and learning environments effectively (Mgijima, 2014:360–361).

Mgijima (2014:360–361) indicated that professionally qualified lecturers must be able to assess learners in varied and reliable ways, using the assessment results to improve both learning and their teaching practices. Additionally, Mgijima (2014) states that lecturers must be computer literate and include information and communication technologies (ICTs) competently in teaching and learning. She continues that lecturers should take cognizance of the demands of the workplace and equip learners to meet these demands. A positive work ethic is imperative, and employees should present suitable values and conduct themselves in a manner appropriate to their profession (Mgijima, 2014:361). Lecturers should also be proficient in critical reflection with their fellow lecturers, to allow them to adjust and modify their presentation to be conversant with the latest advances in their fields. Possessing the above-mentioned proficiencies implies a high level of professionalism that represents intelligent conduct as well as a viewpoint that indicates a positive attitude towards professional development (Mgijima, 2014:360–361).

In light of the above, it is worth noting that it is imperative for TVET lecturers to be well acquainted with TVET policies and their contexts, and technological orientation, with awareness of labour requirements to enable them to prepare their learners accordingly (Chakroun, 2019). From the above discussion, it is evident that competence is important for TVET college lecturers both nationally and internationally. Relevant vocational teaching pedagogy will ensure that lecturers are competent, relevant, and professionally qualified. Mpu and Adu (2019) pointed out that TVET teaching needs to incorporate a focus on the elements outlined below as part of an understanding of their occupation.

Understanding and identifying with company culture is called ‘enculturation’, which means ‘learning how we do things here’. Competence building relates to the curriculum taught and leads to learning to achieve professional standards. This is sometimes required for occupations where the person is seeking a licence to practice, such as a professional engineer. It includes improving practice, innovation, and renewal, or learning to add value to the organisation (Mpu & Adu,

2019:3). From their point of view, students should be able to contribute to the core interests of the company. Consequently, students should be given the opportunity to engage in and solve real-world difficulties. In addition, it is important for them to learn about the ethics, professional practice, and social context of the workplace; as well as identity building: learning about and identifying with the identity of the vocation or profession (Mpu & Adu, 2019:3).

The above discussion confirms the statement of the National Policy Framework for Lecturer Qualifications and Development in TVET colleges in South Africa (DHET,2014:5) ref?). The policy highlights that all professionally qualified lecturers must have the following minimum set of competences: a sound knowledge base in terms of their own subject specialisation (subject specialist); know how to teach the subject and how to select, sequence, and pace content in accordance with both subject and learner needs (pedagogy); and have a sound understanding of the TVET context in South Africa (TVET policy framework). It is also necessary for them to know who their learners are and use the knowledge to adjust teaching and learning approaches to accommodate learners' diversity; possess advanced speaking, reading, and writing skills in order to communicate effectively; as well as be able to manage the teaching and learning environments effectively; be able to assess learners in varied and reliable ways; and be able to use the results of assessment both to improve learning through a variety of types of feedback and to improve their own practice; as well as be computer literate and, furthermore, knowledgeable about the demands that will be made on their learners in the workplace (DHET, 2012: 8).

The discussions in this section confirm that TVET college lecturers need to be equipped with the relevant skills, including relevant pedagogy, which is premised on relevant teaching qualifications. Competence is key, as the literature has revealed that it yields positive learning that is student-centred rather than lecturer-centred. However, the literature is silent when it comes to the pedagogical gap inherited from the legacy teaching qualifications, and how it will be addressed by the new gazetted TVET college lecturer qualifications. This study hopes to add more research in that area.

The following section presents literature on the importance of teaching qualifications in delivering the vocational curriculum and provides an answer to research question three.

3.5. Relevance of teaching qualifications in delivering the vocational curriculum

The importance of TVET lecturers having TVET teaching qualifications cannot be overstated, as all the preceding literature emphasises the importance of this qualification. Previously it was not considered a necessity, as the literature confirms; however, this is a new era. According to DoE (2007:24), the National Teacher Audit in 1995 revealed that one-third of the teaching force at the time was engaged in qualification-driven in-service education; while these qualifications contributed to salary increases, they did not influence classroom practice.

The DHET report (2014:7) revealed that 257 out of 772 lecturers who were employed in Eastern Cape TVET colleges in 2014 were academically and professionally qualified as school teachers and not as TVET lecturers. The report disclosed that 330 of 772 lecturers were academically qualified but professionally unqualified (DHET, 2014:9). The current official policy on professional lecturer qualifications (DHET, 2014) describes "unqualified" lecturers as those who do not hold an academic qualification – which represents at least three years of post-school full-time study – nor a professional teaching qualification. Underqualified lecturers would be those who have had some level or aspect of recognised training but not to the extent that they could be regarded as fully qualified according to the official requirements (DHET, 2014:5).

Since there was no provision for TVET college lecturer qualifications in the past, TVET college lecturers opted for general school qualifications. There were two reasons that guided their decisions: a salary increase and being regarded as a qualified professional. These qualifications were perceived as not adequate for preparing teachers for vocational teaching. This inappropriateness is evident because the school curriculum and vocational outcomes differ. In addition, it was

discussed earlier that there is a difference between pedagogy and vocational pedagogy. The following sub-section discusses the school curriculum as opposed to the vocational curriculum.

3.5.1 School curriculum and vocational curriculum

A school curriculum is an academic curriculum. Students who have studied a school curriculum predominantly study theory. When they pass the final year of high school, they enter HEIs to pursue professions and become professionals in different spheres, for example, economists, engineers, and various other professions. In contrast, a vocational curriculum entails both theory and practice. It aims to equip students with the applicable skills that will make them employable. It simultaneously opens doors for those who want to further their studies at institutions of higher learning. Thus, the teaching pedagogy for both curricula cannot be the same, because they have different outcomes.

Moody and Wheelahan (2012) differentiate academic from vocational teaching because vocational teachers have a greater role in mediating the social context of vocational education than they do in school and higher education. They claim that vocational teachers are distinct because they develop vocational knowledge from work where the emphasis is on production, which leads to a teaching-learning performance and reformulation of vocational knowledge to make it more understandable to students and trainees (Moody & Wheelahan, 2012:324). Skills-based approaches are said to assume that vocational education has inherent competence in performance and, as a result, it is unnecessary to instruct and evaluate knowledge discretely – which increases the likelihood of vocational education reducing rather than improving outcomes. When this occurs, the widespread notion that vocational curricula are dumbed-down versions of general academic curricula is confirmed rather than disproved. In delivering VET, it is imperative to incorporate theory and practice, particularly in expressing the function of diverse and overarching cognitive applications (DHET, 2009:15). The above authors also confirm that the general academic curriculum differs from the vocational curriculum in the sense that the vocational curriculum integrates the

theoretical and practical aspects naturally. This is unlike in the general curriculum, where the assessment of knowledge and practical skills is separated. They both have different learning outcomes; hence, the teaching methods to be used in delivering them cannot be the same.

In other countries there is a difference in the way the pedagogy is designed between learning in school and work-based settings. Cedefop (2015) provided the following examples based on their research. In Danish literature, this differentiation in the dual system of vocational training institutions (IVET) is confirmed, in that the teaching methods in the school component of the vocational education programmes are often more traditional than the more practice-oriented methods in the workplace. In addition, the Swedes distinguish between vocational didactics, based on constructivist learning theory, and subject didactics, combined with cognitive learning theory. It suggests that differences in instructional practice across different learning environments and venues are related to traditions within the specific trade or occupation, and differences in levels of regulation in the school-based and work-based parts of education. The teaching location can encourage or hinder more innovative approaches, which also depend on different curricula and professions. The application of learner-centred approaches also depends heavily on the choices and beliefs of the teacher (Cedefop, 2015:23). This confirms that the same differences exist between these two types of curriculum nationally and internationally, and that for the learning outcomes to be achieved, a relevant pedagogy needs to be applied in each curriculum delivery class.

The differences in these curriculum types, as highlighted above, imply that the teaching pedagogy to be applied in them cannot be the same. For general academic curricula, a traditional student-centred pedagogy has been used for a very long time, since the curriculum is theory- and knowledge-based. This pedagogy has also been employed by vocational lecturers in the absence of vocational pedagogy. This has resulted in the perceived weakness of the vocational programmes, where communities will assume that a vocational curriculum is the worst version of the academic curriculum, and that it only caters to those learners who are academically challenged.

In general, VET forms a separate, parallel system within the education system, with its own institutions, programmes, and teachers. This tends to reinforce the perception of the inferiority of the vocational track. It is therefore important to create articulation pathways between vocational education and school education (African Union, 2007:9). Cedefop (2015) cited the following as the main differences between vocational pedagogy and traditional pedagogy: for vocational pedagogy, vocational education inherits its pedagogy from working life, often with blurred knowledge areas. Teaching and learning must cross a wide range of scientific knowledge areas. It is action-oriented, and what is learned is not separated from its usefulness. There is generally a problem to solve that requires both theoretical and practical skills. Practical and informal learning are frequently included in vocational didactics. Occupations are framed by various rules and regulations, which must be integrated into training. Specific demands from labour market stakeholders carry considerable weight, as does the working context. In contrast, traditional pedagogy is mostly related to cognitive learning theory, is guided by university knowledge fields, and there is a desire to keep subjects separate. Subjects are based on well-framed disciplines. It focuses on theory and the quality of knowledge and is based on the didactic question of 'how?'. The knowledge can often be communicated verbally or in written form. Subject-specific pedagogies do not have the same 'embeddedness'. Demands from stakeholders leave greater freedom for interpretation (Cedefop, 2015:23).

In summary, the school curriculum as an academic curriculum serves a single purpose: to teach theory through the formal academic subjects. Knowledge is guided by university knowledge and is subject-based. The vocational curriculum, in contrast, is influenced by the world of work. It serves a dual purpose: to prepare for a specific occupation and to prepare for further studies. Embedded in it is a combination of theory and practice, and it may offer some element of informal training. A vocational curriculum can be effectively delivered by competent TVET college lecturers who have relevant skills, including pedagogy.

3.5.2 Qualifications that TVET college lecturers should possess

Qualifications and educational quality are directly proportional to teaching qualifications. Enhancing the qualifications of teachers or lecturers is possible by

first understanding the competencies required of teachers and then rounding out these competencies in teachers or lecturers and teacher or lecturer candidates (Yenmez et al., 2016:2). Booyens (2009) points out that for one to be seen as qualified to teach, besides the obvious need for formal teaching qualifications one needs to have some form of specialist knowledge, relevant work experience, and a natural ability to be able to navigate students and make them understand and know what they are learning. Teaching is therefore something that is learned, and for a good quality of teaching to take place, one needs to be in possession of the right qualifications to carry this out (Booyens, 2009:72).

Based on the author's views stated in the preceding paragraph, it can be argued that qualifications play an important role in the delivery of quality education. It is good for TVET college lecturers to have academic qualifications, which will make them subject content specialists. However, based on the above evidence, it is not enough; they also need to have work-based experience as well as the teacher qualifications that were designed for TVET college lecturers. All of this will enable TVET college lecturers to employ different teaching strategies that will be accommodating to every learner, considering the learners' social issues and behaviours, and recognising prior learning.

There are lecturer qualifications designed specifically for TVET college lecturers that are made available by the Policy on Professional Qualifications(DHET,2014:5), although these qualifications are not yet widely available across universities. This policy recognises that lecturers need to be discipline specialists as well as specialists who fully understand the context in which they are working (Zungu & Munakandafa, 2014:12). What is important in this study is that this teaching qualification is currently only offered by very few universities. This means that most teachers at vocational institutions do not have the option of choosing these over general teaching degrees. This study could shed light on whether there are any lecturers who have studied the faculty qualifications listed below.

A wide range of subjects or fields at different NQF levels are taught in TVET institutions. Lecturers are needed for all of these subjects or fields, and lecturers need to be qualified to teach across the different NQF levels within their subject

or field. The National Policy Framework for Lecturer Qualifications and Development in South African TVET Colleges emphasised the importance of a strong workplace component being built into lecturer qualification programmes that prepare lecturers to teach the practical or workshop-based components, so that they are able to prepare learners for the demands and requirements of the workplace. Curriculum offerings in organisations that offer TVET change as workplace demands change; for example, in response to the development of new technologies and qualifications. (DHET, 2012).

Lecturer qualifications, as stated above, differ from general teaching qualifications for school teachers. To prepare TVET college lecturers to teach both theory and practice, lecturer qualifications must include strong workplace knowledge. This confirms that although TVET college lecturers have been trained under general teaching qualifications, those qualifications are somehow irrelevant to the vocational curriculum as they lack the practical part. However, this contradicts the current profile of lecturers employed by TVET colleges, which shows that more lecturers have content-based qualifications rather than practical and pedagogical ones. Even the pedagogies embedded in general teaching qualifications are not equipping TVET college lecturers to be able to cope with their vocational classes.

As previously stated, the PGCE qualification, as one of the general teaching qualifications, aims to develop teachers who have completed undergraduate academic qualifications, such as a National Diploma in Electrical Engineering, into general educators using general teaching pedagogy. This confirms that it has nothing to do with the preparation of TVET college lecturers to take charge in a TVET class. The proposed lecturer qualifications will provide TVET college lecturers with comprehensive knowledge of the vocational world, vocational curriculum, vocational policy frameworks, subject specialisation, and vocational pedagogy.

Hence the policy on TVET college lecturer qualifications that was recently published by the Government will ensure that lecturers in the TVET sector are competent and effective. This has helped establish a foundation to enable teacher continuing professional development to start happening in the TVET sector (Zungu & Munakandafa, 2014:18). Qualifications for TVET college lecturers are

not only important in South Africa; in England, for example, since 2002 new teachers in further education colleges have been required to take an approved teaching qualification, and from 2008 all teaching and training staff from across the sector have been required to join the Institute for Learning. Many vocational teachers who started teaching before September 2007 did not have formal teaching qualifications; however, 90% of untrained further education staff in England have completed their initial teacher training in-service on a part-time basis (Lucas et al., 2012:32).

TVET colleges provide a vocationally oriented curriculum, which means that students are trained on the vocational qualifications. Lecturers who are discipline specialists might be employed to deliver some of those vocational courses, although they do not have teaching pedagogy, because of the scarce skills they have. According to Lucas et al. (2012), those courses include technical subjects, such as hair care, technical drawing, instrumental music, practical ballet, national Greek dances, history of ballet and anatomy, training in the hotel and catering industry, speech, and drama, teaching nursing at schools for special education and schools for specialised education, and librarianship at colleges (Bhowmik et al., 2013:22). The incumbents appointed to teach the above subjects are subject specialists and have only academic qualifications and practical experience in the relevant field. This means that they are not competent if they do not have any teaching qualifications, but they might be given a chance to develop their skills by registering for a lecturer qualification course, which will add to their academic qualifications (for example, an Advanced Diploma in TVET).

A professional body for TVET lecturers should be established, which will determine the minimum requirements for professional registration and the minimum professional qualifications. The professional body will ensure that educators engage in endorsed professional development activities. A performance appraisal system tailored to TVET colleges should be developed and implemented. Continued partnerships with industry are necessary for lecturers to be able to continuously upgrade their knowledge of cutting-edge industry innovations (HRDC, 2014:13). These recommendations highlight the importance of continuous professional development, which will be linked to the

performance appraisal tool. If a separate professional body can be established for TVET college lecturers, professionalisation and uniformity for lecturer qualifications will be achieved.

Msibi, Mncwango, and Memela (2014:9) conducted another study on TVET lecturer development in KwaZulu-Natal TVET colleges, and their findings at that time in terms of the qualifications of the lecturers were as follows: total number of TVET lecturers in KwaZulu-Natal TVET colleges: 5122; recruited from industries: 198; N3 + trade test. Some 258 possessed the National Professional Diploma in Education (NPDE) qualification, 29 of them had a 1-year Higher Diploma in Education, 16 a 1-year National Higher Diploma, 34 a 1-year National Teacher's Diploma, 23 a National Diploma in Occupationally Directed Education, Training, and Development, and 1385 a School-Leaving Certificate.

The above clearly indicates that most lecturers employed by the KwaZulu-Natal TVET colleges are not professionally qualified at all, since they possess only a School-Leaving Certificate. Of the lecturers, 198 were recruited from industries and are artisans. This confirms what was stated earlier: some lecturers are appointed based on their scarce skills. Even those who are professionally qualified do not have a vocation-oriented educational qualification. This confirms that most lecturers in the TVET sector have general teaching qualifications that are irrelevant to the delivery of a vocational curriculum, because they need to have a relevant pedagogy.

This was also supported by a report compiled by the DHET (DHET, 2016) on the qualifications profile of TVET college lecturers in all provinces of South Africa. In the report, 5712 lecturers out of 7789 provided qualification information which enabled qualification status to be determined. This represented 73.3% of the group. Of the 5712 (73.3% sample), 683 (12%) were deemed to be academically and professionally unqualified, 2202 (35.6%) were deemed to be academically qualified but professionally unqualified, 1973 (34.5%) were deemed to be academically and professionally qualified but for the schooling sector, and 854 (15%) were deemed to be academically and professionally qualified for the TVET sector. In the Eastern Cape, out of 772 lecturers, only 87 were qualified as TVET

college lecturers, 257 were qualified as school teachers, 330 were academically qualified but professionally unqualified, and 98 were unqualified (DHET, 2016).

The above paragraphs give a clear picture of the qualifications that TVET college lecturers had as of 2015. It also confirms what was highlighted as the problem in this study: that many TVET college lecturers possess a school teaching qualification, and as such they are regarded as professionally qualified. However, almost half of the lectures are given by academically qualified individuals with no professional qualifications in either South Africa or the Eastern Cape Province. This may pose a challenge in how they prepare their meaningful lessons, how they deliver their lessons, how they design their assessments, as well as how they take care of their students. All these professional skills are entailed by the teacher qualifications, which make teachers competent and professionally qualified. As part of teacher training, student teachers are expected to do work-based learning, called teaching practice. For vocational teacher qualifications, practical learning in the relevant subject of specialisation is part of the training, which is a missing component in general teaching qualifications.

3.5.3 Importance of teaching practice for TVET college lecturers

Kiggundu and Nayimuli (2009) define teaching practice as an integral part of teacher education, which aims at shaping the students' teaching styles. Rubeena (2022:1) adds that teaching practice is the most substantial factor in influencing the student teachers' experiences. The teaching practice sessions help student teachers to improve their subjects and interests, improve their communication skills, develop their personalities, and become efficient teachers in the future. To achieve the standards required for qualified teacher status, a student teacher must complete a teaching practice in at least two school subjects. This represents the range of experiences that student teachers are exposed to when working in classrooms and schools (Kiggundu & Nayimuli, 2009:14). Teaching practice plays an important role in pre-service teacher training. If the teaching practice is executed correctly and effectively, then it will assist in producing high-quality, professionally qualified teachers. Such teachers will be able to actively participate in the development of the teaching process, accommodate rapid educational

changes and novel advancements in curricular and instructional activities, and bring about significant changes in society through their students and motivated youth (Rubeena, 2022:1).

Furthermore, teaching practice is a challenging but important part of teacher education, particularly in developing countries such as South Africa, where its effectiveness is hampered by challenges such as geographical distance, low and unequal teacher expertise, a widespread lack of resources, as well as a lack of discipline among a broad cross-section of learners and educators. If left unaddressed, these challenges can adversely affect student teacher performance during in-service practice and, in the longer term, their perception of the teaching profession (Kiggundu & Nayimuli, 2009:15).

Teaching practice is an important component of becoming a teacher, whether at school or at a TVET college. It grants student teachers an opportunity to experience the actual teaching and learning environment. During teaching practice, a student teacher is given the opportunity to try the art of teaching under the guidance of an experienced teacher, before getting into the real world of the teaching profession using the theory learned in their teacher courses. This is done to ensure that by the time the student teachers graduate, they are competent, experienced, and ready to face the dynamics of teaching in their respective classes. They will be able to think and reflect critically on all the lessons they have delivered, looking at how the lesson was received by their students. According to Walkington, Christense and Kock (2001:23) critical reflection in teaching practice involves describing and questioning taken-for-granted feelings and actions. It is not an end, but a means of developing a teaching philosophy and strategy. It involves teachers learning about others and themselves through research into their own practice. Becoming critically reflective does not happen automatically in teaching – it requires a conscious awareness of understanding a thinking process and utilising it in practice. It is not just for teachers though; encouraging student teachers to be critically reflective benefits both their academic and professional development (Walkington et al., 2001:2).

This teaching practice is embedded in teacher qualifications, so lecturers who do not possess teacher qualifications would not have undergone the teaching

practice. This could mean that there might be a gap in their teaching skills, since they are only exposed to the content of the subjects they teach. For TVET college lecturers, teaching practice would have an impact on their professional career if they did it in a vocational class rather than any other class. This will ensure that they are prepared enough for teaching in TVET colleges rather than schools.

3.5.4 TVET college lecturers need vocational pedagogy

All teachers and lecturers need to enhance their skills (not necessarily qualifications) for the delivery of the curriculum. DoE, 2007 agrees with this and adds that most teachers need to strengthen their subject knowledge base, PCK, and teaching skills. All teachers and lecturers need to acquire skills in recognising, identifying, and addressing barriers to learning, and creating inclusive and enabling teaching and learning environments for all learners, including those with disabilities and other special needs (DoE,2007:24). Learning in the TVET environment requires active knowledge construction, which in context contributes to advanced thinking and learning activities, resulting in high-quality knowledge acquisition. TVET instruction should provide tools and environments that help students achieve this. It is arguably not enough for lecturers to be subject matter experts only – they need to supplement their own knowledge with sound pedagogic practices (Zungu & Munakandafa, 2014:22).

The above paragraph confirms what is constantly highlighted throughout this study – that TVET college lecturers need to enhance their skills to become both discipline and pedagogical specialists. This will help their students to construct high levels of knowledge that will elevate their mind-set and help them to be the best achievers. These skills will also make teaching more interesting, more effective, and of better quality.

The effectiveness of all education systems critically depends on the quality of teaching and learning in the classrooms, workshops, laboratories, and other spaces in which education takes place. While outstanding teachers (including lecturers, trainers, tutors, and coaches), well-designed courses, facilities that are fit for purpose, and a good level of resources are necessary if any kind of

educational provision is to be excellent, they alone are not sufficient. The real answers to improving outcomes for vocational education lie in the classroom, in understanding the many decisions teachers take as they interact with students. There is a particular need to understand more precisely how teachers best engage specific types of learners to undertake the specific type of learning on which they are embarked, to achieve whatever vocational outcomes are desired (Lucas et al., 2012:12). Wheelahan (2010) argues that the best vocational teaching and learning combines theoretical knowledge from the underpinning disciplines (for example, mathematics, psychology, human sciences, and economics) with the occupational knowledge of practice (for example, how to cut hair, build circuit boards, and administer medicines). Importantly, this opens up the possibility of knowledge that is situated within a vocational area but that may also allow students to participate in society's conversation (Wheelahan, 2010:1).

The teaching pedagogy of the TVET college lecturers adds value to teaching over and above teaching material. It helps the TVET college lecturers to use the pedagogical skills they have gained to engage students differently in each learning activity, to achieve each vocational outcome. Vocational pedagogy lecturers recognise students' prior knowledge and can build a solid foundation on that knowledge. In this way, teaching and learning will be recognised as competent. "Do you mean pedagogy is required to deliver motor skills in workshops like salons and garages to do and make?", argued Lucas and Claxton (2012:30). Do you mean to communicate the theories underpinning these activities? Do you mean developing the ability to listen to others with respect, to follow an instruction, to work in groups, to be on time and manage your own time, to use scissors safely as a student? "Vocational education means so many different things", as Lucas (2016:7) avows. In addition, promoting students' academic achievement is arguably the most important component of a TVET college lecturer's tasks. However, they contribute to their students' development in many varied ways. for example, assisting students in learning to work cooperatively with their peers; appropriately conduct themselves in school and the classroom; peacefully resolve differences; and understand their roles as citizens in the classroom and school, communities, and society at large. Teachers also have responsibilities beyond direct instructions, such as working with

colleagues to identify students with special needs and developing plans to support them (Ezugwu & Ijeoma, 2016:4). This can only be achieved if TVET college lecturers are equipped with the relevant pedagogy in order to be competent.

Competent teaching and learning is always a mixture of the theoretical and the practical, the pure and the applied, the extrinsic and the intrinsic, the actual and the potential. In effect, competent teaching and learning depends on the acquisition, integration, and application of different types of knowledge (Wheelahan, 2010:2). According to DHET (2013), if integrated and applied knowledge is understood to be the overarching goal that will enable quality teaching, the types of learning associated with the acquisition, integration, and application of knowledge for teaching purposes would be as follows: Disciplinary learning refers to disciplinary or subject matter knowledge and can be expressed in two components of a teaching curriculum: the study of education and its foundations, which include but are not limited to philosophy, psychology, politics, economics, sociology, and history of education and are often learnt and taught in an integrated fashion; and the study of specialised subject matter relevant to academic, vocational, or occupational fields. Professional ethics and issues related to knowledge of and relationships between self and others in the life of a TVET college lecturer are cross-cutting themes that are theoretically located in the study of education and its foundations (DHET, 2013:3). This implies that subject content knowledge alone is not enough; TVET college lecturers also need to know the guiding principles and ethics of their subjects, including pedagogy.

Pedagogical learning, according to Wang (2012), refers to a study of the principles, practices, and methods of teaching and lecturing, including teaching in the TVET college context. It includes knowledge of how to represent the concepts, methods, and rules of a teaching subject or field to create appropriate learning opportunities for learners. Inclusive education and the understanding of barriers to learning are important aspects of both general pedagogical knowledge and specialised PCK. (Wang, 2012:5). TVET college lecturers must have specialised knowledge of pedagogical approaches appropriate for teaching and working with learners in vocational contexts. This confirms what has been

discussed throughout the study: that TVET college lecturers need a relevant teaching pedagogy that will enable them to use relevant teaching strategies for their TVET learners. Relevant pedagogy will allow them to be able to represent the content of their subjects and transform it into content for learning.

SAQA (2016), however, reveals two potential consequences. Firstly, there is a risk that colleges may decrease their connections to the world of work through the increasing focus on education over work-based qualifications. Currently, the identities of many lecturers are centred primarily on their subject disciplines or professions. For example, many of the lecturers interviewed in the engineering field saw themselves as artisans and engineers before they saw themselves as teachers. These identities may shift as they are involved in study programmes. Secondly, lecturers who do not wish to become 'teachers' may leave the colleges and increase the flow of skills out of them.

Practical learning, or work-integrated learning, involves learning in and from practice. Regarding learning to teach, learning from practice includes the study of practice using discursive resources to analyse different practices across a variety of contexts, drawing from case studies, video recordings, lesson observations, and so on, to theorise practice and form a basis for learning in practice. Learning in practice involves teaching in authentic and simulated lecture environments. Practical learning is an important condition for the development of tacit knowledge, an essential component of learning to teach. Practical learning provides the context in which all other learning can be developed and reinforced (DHET, 2015:17). TVET college lecturers must be subject specialists, be able to integrate theory and practice, and at the same time incorporate the vocational pedagogical knowledge that will help the TVET college students to learn better. Vocational pedagogy will also help lecturers to be able to deliver lessons not only in the classroom but also in the workplace, in simulation classes, and in factories.

According to Lucas (2016), learning something while working beside a supervisor in a factory is different from learning to make a dovetail joint in a college workshop or learning about health and safety legislation via an online course. Each of these situations is different. First, the other learners who may or may not be present will

affect things. Then the teacher and his or her experiences, traditions, and culture will shape it. Lastly, the physical location will play an important role. Context is specifically important in vocational education, as most teaching and learning takes place in the dual settings of the workplace and the educational institution. A skill may be taught in one setting with a view to being largely applied in another, often in a move from college to the workplace (Lucas, 2016:10). Hence, general pedagogy is not so relevant to the vocational setting. In short, there are inadequate models of vocational education from which to derive vocational pedagogy, and where such attempts are made they often derive from overly simplistic approaches to school education.

The next section discusses bridging the gap between general teaching qualifications and the new lecturer qualifications. The discussion aims to answer the third research question which aims to find if is there a link between school and vocational curriculum outcomes?

3.6 Bridging the pedagogical gap between the general teaching qualifications and the new lecturer qualifications

The literature which has been reviewed and discussed earlier in this chapter revealed that school curriculum and vocational curriculum outcomes are not the same, and as such the school teaching qualifications and what TVET college lecturers should have as a teaching qualification are not the same. The DHET has approved TVET college lecturer qualifications which will be recognised for the employment of TVET college lecturers. The following sub-sections review the literature to find out if there are any opportunities available for TVET college lecturers who possess the school teaching qualifications, that they can enrol for to close the pedagogical gap caused by their school qualifications, so that their students pass.

3.6.1 International perspective on teacher qualifications

In the USA there were approximately 11 500 TVET teachers in Grades 7–12 in 2009 (Zirkle & Martin, 2012:10). These teachers are trained through two different

pathways: one is based on the traditional path that includes a university degree, such as a Bachelor or Master's degree, while the other is an alternative path that provides pedagogical training via a college or university for TVET teacher candidates from different industries or sectors (Zirkle & Martin, 2012:10). This is similar to what has been tabled earlier in this study: that even in South Africa most TVET lecturers are discipline specialists, and very few are both discipline and pedagogical specialists.

Generally, further education in England exhibits many of the trends seen in South Africa regarding corporate governance, flexibility, and responsiveness, professionalisation and certification of college staff (Papier, 2008:17). The reform of continuing education took place over a period of around 15 years, with systems and policies often being reflected upon and revised. Some universities are now sufficiently capacitive and have earned the trust of the universities to be able to offer initial teacher training for university staff. While there used to be no admission requirements for lecturers at continuing education universities, the lecturers must now be qualified and have reading and arithmetic skills up to at least Level 2 (Papier, 2008:17). Even in the South African perspective, lecturers need to be professionally qualified in teaching methods in order to perform well. They also need fundamental learning as per the policy on lecturer qualifications.

The European Commission (Sarıkaya Erdem & Yıldırım, 2019) added that there are prizes in teacher training in Levels 3–7 of the qualification framework. While it is understood that improving subject knowledge and pedagogical skills are developed separately and incrementally, the importance of mentoring in subject specialties is recognised. The entry requirements for higher education college teacher qualifications are fairly open and flexible. There are separate qualification standards for those intending to teach in schools and for teaching in universities, which manifests some tensions within the system (Sarıkaya Erdem & Yıldırım, 2019:13). In South Africa currently, there are two separate policies that were gazetted in recent years: The National Policy Framework for Teacher Education and Development, which aimed to equip school teachers with general teaching qualifications, and the Policy on Professional Qualifications for TVET college lecturers, which aims to equip TVET college lecturers with the teaching

qualification that is relevant to their field of teaching. Contrary to what is the case in England, these policies did not bring any tensions between the two educational systems, but instead promoted the pedagogical specialisation for each system.

The potential of the UK Open University to make a wider national contribution to improving and upgrading teacher qualifications through distance education is now firmly established. Courses for in-service teachers range from undergraduate degrees to postgraduate programmes. These include advanced degrees in education, a professional development certificate, and a Master of Arts (MA) and doctorate (EdD) in education. The professional development of teachers is now recognised within the teaching profession as part of the ongoing process of academic development, pedagogical programmes and skills of teachers, schools, and the education service. Modules in these courses are designed to equip teachers to identify problems and questions in areas of interest and to design study plans or research strategies to address them. This enables teachers enrolled in the courses to critically assess relevant literature and introduces the methods and skills needed for the chosen areas. It further provides candidates with suitable professional skills for the job or consultancy (Strebler et al., 2014:15; Bagwandeen, 1999:55). One qualification that is missing in South Africa is the undergraduate qualification that will cater for in-service lecturers. Here it is only postgraduate diplomas and certificates that cater for in-service lecturers.

According to the Canadian Association for University Continuing Education Directory of Distance Education courses, the types of professional development courses for teachers primarily were as follows: Foundations of Education or Educational Psychology; Special Needs Education; History of Education and School Law; Methods of Teaching; Language Acquisition; Writing and Reading Skills; Second Languages; Educational Computing; Educational Administration; Adult Education; and Counselling and Guidance (Timperley, Wilson, Barrar & Fung, 2014:117; Burpee & Wilson, 1995:237).

Internationally, universities offer teacher qualifications at different levels that qualify teachers who teach different subjects, including vocational subjects. They do not have any specifically vocational pedagogy-related courses that

accommodate vocational teachers. The main reason could be that a vocational curriculum is offered in general schools rather than in colleges, as it is in South Africa. It is only in England that teacher qualification standards for teachers and vocational teachers are separated to ensure pedagogical specialisation.

3.6.2 The South African perspective on teacher qualifications

The DoE has introduced initiatives to reduce levels of under-qualification in its teacher workforce, mainly through offering an interim in-service, site-based upgrading qualification, the National Professional Diploma in Education (NPDE). As a result of these initiatives the total number of unqualified and underqualified educators has been reduced significantly since 1994, when as much as 36% of the workforce fell into this category, having increased consistently during the previous two decades. By 2001 the proportion of unqualified and underqualified educators had fallen to 18%. According to a Human Sciences Research Council study, by 2004 the cohort of unqualified or underqualified educators seemed to have further declined to 8.3% (TimesLIVE, 2017; ENCA, 2013; DoE, 2005:10–11).

It is worth noting that this decline in the number of unqualified teachers might include TVET college lecturers because, by 2004, TVET college lecturers were still under the employ of the provincial DoEs. Hence the lecturers were included in any teacher developmental programmes organised by the DoE (there was only one Department at that stage; the DHET did not yet exist).

For South African teachers the following qualifications were approved as the option for in-service teachers, and TVET college lecturers also opted for these teacher qualifications, as there were no clear lecturer qualifications available: Certificate in Education, that aims to develop introductory practical and foundational competence, and some degree of reflexive competence; PGCE, which aims to accredit a generalist educator that has an undergraduate qualification – the qualification focusing mainly on developing practical competence reflexively grounded in educational theory; Postgraduate Diploma in Education, which aims to accredit advanced and specialised occupational, academic and professional study; Bachelor of Education (Honours), for the

advanced and specialised academic, professional or occupational study of an aspect of education, and designed to build the competence of expert educators and curriculum specialists, system managers, or educational researchers; Master of Education, which aims to accredit the advanced and specialised academic or professional study of an aspect of education with emphasis on research, and which may be taken by thesis or a combination of thesis and coursework; and the Doctor of Education, to accredit the highly advanced and specialised academic or professional study of an aspect of education in which the learner demonstrates capacity for sustained original research (DHET, 2015:37–40; DoE, 2000:14–15).

In South Africa, none of the qualifications listed above are relevant to the vocational lecturers who do not have a professional teacher qualification. Lecturers at TVET colleges were left without any option but to enrol in these courses to be recognised as professionally qualified. The teaching pedagogy embedded in these courses is intended for school-based teachers who teach general subjects; they are not vocationally oriented. The National Higher Diploma: Post-school Education and Postgraduate in certificate Tertiary Education are postgraduate qualifications aimed at advancing knowledge and research skills in post-school education. TVET college lecturers would need to have an undergraduate qualification in vocational education to be able to enrol in these courses. Again, they were not initially designed as qualifications for TVET college lecturers, although they are now recognised as relevant for vocational lecturers. The question of whether the curriculum of these programmes was revised to suit the vocational teacher qualification or not can also be raised.

3.6.3 Teacher qualifications that TVET college lecturers may have opted for

Until recently in South Africa, there was no training base for TVET college lecturers, and further, no effort had been made to develop a new source of lecturers. The TVET sector was being forced to appoint lecturers from the ranks of their own graduates because no other trained personnel were available (Taylor, 2011). Teacher education is one of the central pillars of the National Human Resource Development Strategy The growth of professionalism, expertise, and

self-confidence is key to teacher development. The Ministry intended to develop a policy that would aim to address all aspects of teacher education, that should include the structure and career paths in the teaching profession (Bhengu, 1995:26).

The policy, as stated above, was developed for the teacher qualifications for basic education teachers by the Department of Basic Education. The qualifications also catered for teachers working in the nineteenth century, with older qualifications such as Form 2. They are now required to register for the National Professional Diploma in Education. The DHET also had a policy on lecturer qualifications for TVET college lecturers. The focus is to bring a vocational curriculum perspective to the TVET college lecturers through lecturer qualifications, and to put emphasis on the difference between the general academic curriculum and the vocational curriculum as well as the pedagogy that is relevant in each.

The literature revealed that from 1991 a series of national diplomas and/or national higher diplomas in technical education, commercial education, home economics, natural sciences, and educational management were being delivered. The Diploma in Tertiary Education has subsequently been superseded by a Postgraduate Certificate in Higher Education and Training (DHET, 2012:6). The teaching qualifications stated above confirm that TVET college lecturers were never previously accommodated in the design of teaching qualifications. The Diploma in Tertiary Education and Training and the Postgraduate Diploma in Higher Education were never designed for vocational teaching, although they are recognised as professional qualifications for TVET college lecturers. The implication is that the pedagogy embedded in them is not a vocational pedagogy and does not equip TVET college lecturers with the skills they need. Rather, these higher qualifications were meant for the lecturers who teach in HEIs.

3.6.4 Options that were available for professional development

Two Eastern Cape universities developed and offered a short professional development programme called Vocational Education Orientation Programme (VEOP) to professionally unqualified lecturers from local TVET colleges in 2012.

At the time when the VEOP was offered, very few universities were offering qualifications that focused on pedagogy for vocational lecturers.

According to Rudman and Meiring (2018), VEOP was just an interim response to the dearth of teacher training qualifications appropriate to TVET lecturers at a time when the need for such an intervention was expressed. The programme was developed collaboratively by a combined group of university and college participants, and was then piloted by two universities in the province. The programme – intended as an induction programme for new college lecturers, especially those from an industry environment new to teaching in formal institutional settings – was located at Level 5 of the South African National Qualifications Framework (NQF), a post-matric level. The VEOP offered at Nelson Mandela Metropolitan University consisted of six sections: TVET college context and policy environment; curriculum interpretation and planning; understanding and managing the learner; methodology-integrated teaching and assessment; conducting and managing assessment; and becoming a reflective practitioner (Rudman & Meiring, 2018:3).

The VEOP provided lecturers with the basics of teaching in a vocational context. It is not enough, even if it can be considered a relevant qualification, because it covers only a limited scope. It did not expose lecturers to any practical work, as the literature revealed that TVET college lecturers need to have practical experience as part of their competence. VEOP was offered for a very limited time, and there was one cohort of lecturers who benefited from the programme. There were no other formal trainings available that aimed to address the pedagogical gap among TVET college lecturers.

3.6.5 Relevant options that TVET college lecturers have to develop themselves professionally

Effective and professional TVET college lecturers are the key to quality in VET. In South Africa, although many TVET college lecturers are highly talent, some lack the right mix of skills, and there are few structured Interventions available to ensure the right balance of both industry experience and pedagogical skills in

TVET college lecturers, as well as strengthened professional preparation (OECD, 2012:9).

There is a lower level of professional teaching qualifications among engineering lecturers, which is illustrated in the 2009 Annual Survey data. According to Mokone (2011:3), teaching development for TVET college lecturers requires a vigorous system of in-service training (in both content and curriculum matters as well as methodology), but the situation is so dire that there is not even pre-service training for TVET college lecturers. Therefore, student performances – especially in NCV programmes – continue to be poor, and the lack of pedagogy for lecturers might not be ruled out as a contributor.

At present, there are no Colleges of Education in South Africa; instead, there are 24 HEIs involved in teacher education. Critics of reforms in teacher education contend that the sector has become the stepchild of higher education. While the decision to place all teacher education in university and technical faculties of education can be easily justified on the basis of cost and quality, little thought seems to have been given to the specific needs of teacher education (DHET, 2012:4). In 2013, Minister DHET made an announcement that plans to reintroduce teacher training colleges were underway. Speaking at a New Age business briefing in Johannesburg in January 2013, he said, "The first school to open would be the Ndebele College Campus in Siyabuswa, Mpumalanga". Training at the college would be facilitated by the University of Johannesburg, and "Three more colleges would be opened next year in KwaZulu-Natal, Limpopo, and the Eastern Cape" (Roodt, 2013:12).

HEIs are geared primarily to teaching pure knowledge to a largely full-time undergraduate student body, and to developing pure and sometimes applied research. They are not primarily interested in the time-consuming, costly, and often practical school-located activities of ensuring a sound professional education for large numbers of students. Nor do they teach large numbers of mature part-time students. Teacher education requires a different kind of teaching and learning process than that understood and supported by HEIs (DoE, 2005:70). In the absence of clear guidelines on professional qualifications for TVET college lecturers, and to align professional qualifications for TVET college lecturers with

the new policy for teachers in schools, a few universities (mostly universities of technology) introduced a 1-year Postgraduate Certificate in Education: Further Education and Training (Vocational Education) (PGCE: FET-VE) in 2001. This qualification was a PGCE variant aimed at school teachers teaching in the FET phase. An appropriate 3-year national diploma or degree serves as the admission requirement for the PGCE: FET-VE (DHET, 2012).

Most of the TVET college lecturers are professionally qualified because of the PGCE: FET phase. The teaching pedagogy embedded in this qualification is a general pedagogy that aims to equip FET phase teachers with general teaching strategies. The teaching pedagogy relates to two subjects for the FET phase that the teacher specialises in, such as accounting. It enables teachers to progress from content knowledge to content understanding for learning. The major disadvantage of this qualification for TVET college lecturers is that it is not vocationally oriented. The policies that are included in the curriculum of the qualification are for schools, leaving TVET college lecturers with no knowledge of the relevant TVET college policies. The curriculum development and research that are included in the PGCE are also for schools, and do not equip TVET college lecturers to be vocational curriculum developers and to understand all the related policies. Even the teaching strategies that the qualification entails do not include teaching methods for practical classes like workshops.

In light of the above, DHET (2009) proposed the following post-professional qualifications for TVET lecturers that will enable advanced study, role and function specialisation, and research in TVET:

- Advanced Certificate in Technical and Vocational Educational and Training – provides TVET lecturers with a sound knowledge base for teaching a particular vocational subject, as well as the ability to apply their knowledge and skills to lecturing;
- Advanced Diploma in Technical and Vocational Education and Training – to strengthen and enhance an existing specialisation in a subject or to develop a new role or practice to support teaching and learning in an institution offering TVET programmes; and

- Postgraduate Diploma in Technical and Vocational Education and Training – serves to strengthen professional practice in a teaching specialisation, role, or practice to the extent that the graduate is positioned to take on a leadership role in the TVET environment (DHET, 2009:14).

The above proposal was approved as the new lecturer qualification for TVET college lecturers in 2013.

Mpu and Adu (2019) cited that the primary purpose of the new suite of TVET educator qualifications is to enable educators to provide the connection between education and work. The qualifications therefore require appropriate pedagogies for VET, to enable educators to provide the connection between education and work. Learning to teach is a fundamental skill for any educational institution, and it is also appropriate for TVET contexts. It is therefore the key to success. However, while TVET as a sector has been around for a long time, vocational pedagogy, as it is seen now, is a new field of practice (Mpu & Adu, 2019: 5). Since the policy on lecturer qualification is new and there have been no teacher qualifications available for TVET college lecturers, lecturers enrolled for qualifications that were available, namely, the PGCE, which aims to accredit generalist educators and caps their undergraduate qualification. The admission requirement is that candidates are required to have appropriate prior learning that leads to foundational and reflexive competence. This qualification focuses mainly on developing practical competence reflexively grounded in educational theory (DoE, 2000:14).

This implies that in TVET colleges there will be different teaching qualifications, because of the old teaching qualifications and the new TVET college lecturer qualification. The literature has revealed that there is a gap between these two sets of qualifications, although they both lead to TVET college lecturers being professionally qualified. It was noticed in this study that the policy on TVET college lecturer qualifications did not cater for qualifications that would bridge the gap between school teaching qualifications and TVET college lecturer qualifications.

Pre- and in-service programmes for teachers are frequently unavailable, making it difficult for personnel working in a sector as innovative and technology-driven as TVET to function effectively, without their own training support framework. Innovations also require very close contact with enterprises and other stakeholders, including employment services, labour market institutions, and other social partners, as well as with other vocational teachers and, in fact, with TVET students, for purposes of effective teaching and training, career guidance, and more. Already in the 1960s, international standards for teachers required programmes to incorporate the practical experience acquired in industry, commerce, and government. However, these aspects of coaching teachers and trainers too often remain primitive when it comes to designing innovative schemes in TVET. Teachers and trainers in TVET who are trained to fulfil these new challenges are often seen as key agents of change within the reform process. They contribute to designing new classroom and workshop learning for TVET lecturers, and also provide feedback on training because it relates to enterprise and therefore the workplace. As a result, active participation of teachers, trainers, and teachers in designing appropriate learning environments is critical to TVET system improvement (Axmann, Rhoades & Nordstrum, 2015:35).

SAQA (2016) outlines a number of models of teacher education for the college sector, based on international practice. The preferred option is a model that sees professional development as the joint responsibility of colleges and universities in partnerships that address the issue of specialist vocational pedagogy and curriculum knowledge. Such partnerships require complex relations between curriculum specialists, appropriate disciplines, and professional bodies to avoid the risk of generic training (SAQA, 2016:123).

The next subsection details the impact of pedagogy on student attainment.

3.6.5 The influence of pedagogies on student performance

There are many factors that influence student academic performance, but the most important is the quality of teachers who impart subject knowledge to students. Clotfelter, Ladd and Vigdor (2010:30) noted that "In relation to the estimated impact of class size, the impact of teacher credentials appears to be

quite large". In a 2009 town hall meeting, President Obama remarked that the "single most important factor in the classroom is the quality of the person standing at the front of the classroom" (Sarikaya Erdem & Yildrim, 2019:8). Goldhaber and Anthony conducted a study in 2007 to find out if there is any relationship between teacher qualifications and student performance, with specific focus on English and Mathematics. Their research found that students who were taught by National Board-Certified teachers (who had teaching credentials) performed better in reading and Mathematics than students who were taught by teachers who did not have National Board Certification. Their study also showed that the differences in achievement varied depending on the grade level (Goldhaber & Anthony, 2010).

Although their study was conducted in a school setting, its findings are applicable to this study, in the sense that in TVET colleges there are lecturers who are academically qualified, lecturers who are professionally qualified, and artisans. These different sets of lecturers might not be able to have the same level of student achievement due to the nature of their qualifications. Any qualification equips its learners (TVET college lecturers in this case) with the appropriate content knowledge, which might not be sufficient if there is no pedagogical knowledge, hence student performance might not be the same.

The above argument is supported by Ravitch (2010), whose views were that teachers who are fully prepared and certified in both their discipline and in education are more highly rated and are more successful with students than teachers without preparation. Also, those with more training in learning, learner development, teaching methods, and curriculum are found to be more effective than those with less (Ravitch, 2010:10). Overall, there is mounting evidence that a teacher's performance on a licensure exam is significantly correlated with their ability to improve student achievement. Yet it is not clear if these findings hold across licensure exams and across teaching subjects. Clearly, more work needs to be done to examine these relationships more thoroughly.

According to Ezugwu and Iljeoma (2016), it can be inferred that students taught by more experienced teachers reach a higher standard, because these teachers must have mastered the content of their course and, over time, acquired skills to

deal with various academic problems of students, such as differences in ability and previous academic knowledge and background. Teachers must therefore realise that the way they teach, how they behave, and how they interact with students to meet their academic challenges are as important as what they teach in shaping students' attitudes towards the acquisition of academic and general knowledge.

The National Research Council was asked to conduct a study to determine just how effective national teacher certification programmes really were. The panel revealed that when students have nationally certified teachers, their test scores are higher (Honawar & Viadero, 2011). However, the panel also stated that administrators are not making effective use of the nationally certified teachers. Also, Board-certified teachers were more likely to stay in teaching than change jobs at a higher rate, than those who had attempted but did not pass the certification process. The Council also found that National Board-Certified teachers advance student achievement and learning, stay in the classroom longer, support new and struggling teachers, and assume other school leadership roles (Honawar & Viadero, 2011).

In support of the above findings, Chakroun (2019:7) stated that teachers in Mississippi revealed that the process of becoming Board-certified renews their enthusiasm for teaching, improves their performance in the classroom, and helps raise the achievement levels of their students (National Board for Professional Teaching Standards, 2010). If education were in a perfect world, then all teachers would possess this powerful quality. Any degree is useless unless the person holding it is self-motivated, has a formidable work ethic, and is determined that doing what is best for the learners is the only thing that matters (National Board for Professional Teaching Standards, 2010).

The literature confirmed what was argued in this study: that students who are taught by teachers with teacher qualifications are likely to make higher gains on achievement progress than students taught by teachers without teacher qualifications. This means that the teaching pedagogy embedded in teaching qualifications is beneficial and productive for TVET college lecturers, because it

gives them the ability to be more efficient when transferring knowledge to their students.

3.7 Conclusion

This chapter began by discussing the concept of TVET and the related pedagogy that is necessary for delivering the TVET curriculum. Apart from discussing vocational education pedagogy, its importance was discussed in depth to indicate the necessity of knowledge of vocational education. The importance of pedagogy for teaching and learning at TVET colleges was then discussed. This section provided a comprehensive overview of current teaching qualifications and the role they play in TVET classes for the lecturers who hold them. It became clear that the current available teaching qualifications are not so relevant to the vocational class. Their irrelevance is, however, not addressed by the *Gazetted* new lecturer qualifications (DHET, 2013). The next discussion presented the relevance of pedagogies in vocational classes, and lastly, there was consideration of the gaps between teacher qualifications and new lecturer qualifications, and how those gaps can be closed to ensure that the current cohort of lecturers is competent and that they all possess the relevant pedagogy as highlighted by Shulman in Chapter 2.

The next chapter will present the research methods that will guide the study in answering the research questions that are investigated.

CHAPTER 4 RESEARCH METHODOLOGY

4.1 Introduction

The previous chapter presented the literature that relates to the subject under investigation. This Chapter discusses the methodology employed in this study, which comprised a case study conducted in three TVET colleges in the Eastern Cape Province. The participants were lecturers in each of the three TVET colleges. This chapter justifies the selection of a qualitative research paradigm for the study and provides an account of the research design and methods of data collection and analysis. A description of the three sites is also included.

This chapter is divided into different focus areas. It begins with the research orientation, followed by the research design, and ways to ensure research quality. It concludes with the ethical considerations pertaining to the study. The different methods were carefully selected in the opinion that they will be able to provide rich answers to the phenomenon of the classroom teaching experiences of TVET college lecturers who teach with or without pedagogy.

4.2 Orientation of the research

Based on the literature that was reviewed in this study and the main research question, a qualitative approach was employed. Qualitative research explores and discovers human understandings, attitudes, inspirations, intents, and behaviours. Creswell (2014:4) states that "qualitative research is an approach for investigating and understanding the significance that individuals or groups attribute to a social or human occurrence". This study aimed to study and explore knowledge, experiences, and views about pedagogy among TVET college lecturers who teach with or without pedagogy. Qualitative research was considered a shared, inductive, easy-going, universal, and reflexive method of data collection and analysis. Although participation in qualitative research has traditionally been limited to interviews, the investigation of documentation is seen as a variation in the still-developing qualitative research arena (Berg, 2016:28).

This study was conducted to examine the lecturers' understandings about the importance of pedagogy for TVET college lecturers, as well as the relevance of the pedagogy that is rooted in general teaching qualifications in a vocational setting. The qualitative approach was believed to be suitable since qualitative research endeavours to comprehend the exclusive associations in a particular situation, such as the relations between the teaching pedagogy and the vocational curriculum in this study. Motitswe (2017:118) supports this and is of the view that qualitative research is appropriate for studies in school settings because of the active nature of teaching and learning in the classroom. As Denscombe (2013:28) states,"Examination is recognized as a method of unfurling, deciphering, and looking for comprehension and openings so as to arrive at a shared significance". This exploratory study took an interpretive worldview because there are various interpretations of what is honest and true, with no single truth. The subject of interpretivist research is the lecturers' methodologies which they use in class, and their conclusions and comprehension in terms of how they view the teaching pedagogies of TVET college lecturers.

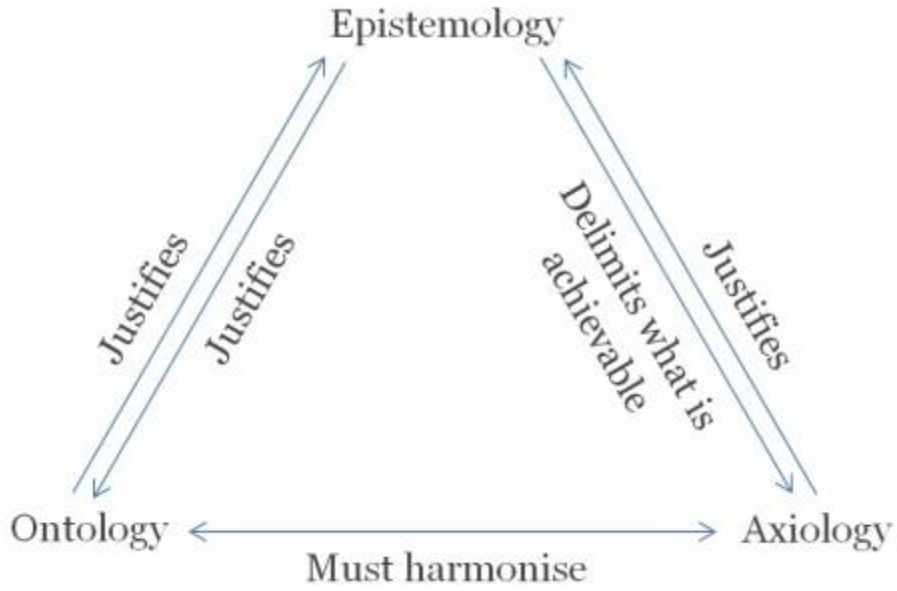
Interpretivism holds that through individual translation and intercession in certainty, the truth is totally known:

> The investigation of the wonders in their customary condition is noteworthy to the interpretivist reasoning, along with the affirmation that analysts can't abstain from influencing those marvels that they study. They recognize that there might be different understandings of truth yet maintain that these translations are, in themselves, a lump of the logical information they are following. (Briggs & Coleman, 2007:19)

Interpretivism is viewed as relevant for this investigation, as the participants were relied upon to provide rich clarifications, dependent on their various understandings of educating with or without instructional methods in a professional setting.

As stated above, research is perceived as a means of describing, understanding, and pursuing an understanding of the possibilities in order to grasp a collective meaning, and not as a search for casual relationships, which characterises positivism. The subject of interpretivist research is persons' attitudes, opinions, and interpretations, which in this study symbolise lecturers' experiences with the teaching pedagogy of TVET college lecturers (Denscombe, 2010).

Figure 2: Knowledge, reality and value theories



Adapted from Marabini & Moretti (2020:499).

4.2.1 Epistemology

Epistemology is the study of acquirement of knowledge and involves an awareness of certain aspects of authenticity, and it seeks to ascertain what is known and in what way it is known. Measured as a branch of philosophy, it addresses perceptive sciences, the history of science, and cultural studies. Likewise, epistemology clarifies why our minds narrate to reality and how these connections are either valid or invalid. It is needed to make a distinction between truth and falsehood as we obtain knowledge from the world around us (Kumar: 2014:17). Epistemology also refers to assumptions about knowledge and how it can be obtained (Denscombe, 2013). It is a term used in a study to describe how we come to know something, how we know the truth or reality, or what knowledge in the world is considered to be. It is concerned with the very foundations of knowledge, including its nature, forms, modes of acquisition, and methods for disseminating it to other people (Kivunja & Kuyini, 2017:27; Tennis, 2008:103).

4.2.2 Ontology

Ontology refers to what type of objects exist in the social world, and suppositions about the kind and class of that social reality. It has to do with the existence of social reality and whether it exists autonomously of human understanding and interpretation; for example, is there a common social reality or “multiple context-specific realities” (Maluleke, 2019:77).

Realism, idealism, and materialism are, broadly speaking, the three distinct ontological viewpoints that are recognised (Maluleke, 2019:77). According to realism, there exists an external reality that is neutral, despite what individuals reflect or comprehend it to be, while idealism upholds that reality can only be comprehended through the human mind and socially constructed meanings. Analogous to realism, materialism states that there is a real universe, but only the physical or material world is regarded as real. The material world gives rise to other phenomena, such as beliefs, values, or experiences, but they do not mould the material world (Motitswe, 2017).

4.2.3 Axiology

As a branch of philosophy, axiology examines judgements about value. Specifically, axiology is engaged with assessment of the role of the researcher’s own values at all stages of the research process. Mainly, axiology denotes the ‘aims’ of the research. This area of research philosophy aims to make it clear whether your goal is merely to understand the world or to forecast or explain it. Axiology, to put it simply, is the study of what you value in your research. This is significant because it determines how you conduct research and what you value in the results (Li, 2016:13).

It is understood that research is a means of clarifying, analysing, and discovering opportunities to reach a joint implication (Denscombe, 2013:28). This study used an interpretive paradigm, because different people have different ideas about what is true, and there is no single truth that applies to everyone. The study of individuals' approaches, opinions, and understandings of events is the focus of interpretivist research. This study examined the opinions of lecturers who used

teaching pedagogy, since they had knowledge of it, and those who did not have knowledge of teaching pedagogy. Consequently, their understanding and philosophies about the design and dynamics that has affected the development of these perceptions.

Interpretivism states that only because of an individual's interpretation and involvement can reality be confidently understood in its entirety. The interpretivist philosophy emphasises the importance of studying phenomena in their natural settings while acknowledging the possibility that researchers may influence the phenomena being studied. Researchers claim that these understandings constitute a piece of the scientific knowledge that the researcher pursues, although they agree that there may be different understandings of truth (Briggs & Coleman, 2007:19). Interpretivism is believed to be appropriate for this study because of the subject that was studied.

As previously stated, research is viewed as a means of describing, comprehending, and pursuing the comprehension of possibilities in order to grasp a collective meaning, rather than as a search for causal relationships (as in positivism) (Denscombe, 2013). The subject of interpretivist research is persons' attitudes, opinions, and interpretations, and this study investigated lecturers' experiences regarding the teaching pedagogy of TVET college lecturers.

4.3 Research design

A research design refers to the strategy and construction of the inquiry used to acquire evidence to answer the research questions. It provides the techniques for conducting the study (Denscombe, 2013). The research design chosen for this study is a case study. A case study is the study of the intricacy of a solitary case, understanding its action within significant conditions. For this study, a case study design within the qualitative model was employed using two collection methods, which will be discussed in detail later in the chapter. The aim was to analyse and recreate cases (Bowen, 2017). The intention of this study was not to focus on just attaining results, as is the case with many researchers who do not focus on the dependence between participants and researchers, because they focus on

achieving results and not on the performance of the participant/s involved. In this study, TVET college lecturers will be involved, where the justification for the study is established in the situation as a consequence of the engagements and communications between the participant and the researcher (Aliyu, 2015; Bowen, 2017).

In addition, a research design points out how the research is established. It also shows in what manner all features of the research, such as population, sample, methods of collecting data, and data analysis strategies, are combined to create discussion concerning the research questions (Denscombe, 2013). As mentioned earlier, this study was a case study of three TVET colleges in the Eastern Cape to establish whether TVET college lecturers need a vocational teaching pedagogy or not, as well as the relevance of the teaching pedagogy covered in the general teaching qualifications to vocational curriculum delivery. The study was concerned with how TVET college lecturers, with or without pedagogy, teach, as well as the challenges and benefits of having a general teaching qualification. The study also aimed to examine the relevance of the teaching methods employed, if any, by those lecturers who did not have a teaching qualification.

4.4 The case study

Case studies are widely used in Social Science research, even though positivistic researchers dismiss them as "a weak sibling among social science methods" (Yin, 2018: xiii). Case studies are viewed with scepticism, because the research procedures are inadequately recorded. However, this could easily be overcome, and researchers should be encouraged to conduct case study research precisely, when it could produce a profound account of the incidents being studied. The case study approach is mainly useful when it is necessary to attain a profound comprehension of "a subject, event, or phenomenon of significance in its natural setting" (Crowe, 2011:1).

The aim of a case study is to obtain a deep comprehension of different aspects of a specific situation (Nieuwenhuis, 2007:75). Shields (2011) defines the case study method as a research strategy that enables in-depth examination of real-

world events, occurrences, or other observations for the purposes of investigation, testing, theory development, or simply for skill development (Shields, 2011:1). A ‘case’, according to Rule and John (2013:44), is a specific incident that captures the circumstances or state of a specific individual or action. According to Naele et al. (2006), case studies are suitable when there is a story to tell that engenders thought.

This study employed a multiple case study. In multiple case studies every case chosen should have a specific objective in the overall scope of the investigation. Multiple case studies should be replicated; in choosing each case, it is important to think carefully about them (Yin, 2018; Aliyu, 2015; Bowen, 2017). ‘Replication’ is a concept taken from the quantitative paradigm to ensure that the research is authentic and truthful, and the qualitative researcher replicates and takes cognizance of the fact that the participants are human beings. This study used a multiple case study in which TVET college lecturers articulated their unique stories of teaching with or without pedagogy.

A multiple case study was employed in this study in order to gain a deeper understanding of the dynamics of the pedagogy of TVET college lecturers. The multiple case study research strategy was used to gain an in-depth understanding of phenomena or other events within the real-life setting, for the purpose of uncovering the phenomena being investigated. Another reason why the researcher chose a case study was that it could be piloted and used for various purposes. According to Rule and John (2013:5), understanding and awareness of a specific case are initially established by providing an intense, fruitful elucidation of the case, and in this way informing its associations to its all-encompassing situations. Next, it could be employed to investigate an expansive challenge in a concentrated and controlled environment. Additionally, theoretical understandings that refer to the case may be created, and case studies could also clarify corresponding cases, which could offer a degree of transferability. Finally, case studies could be used to impart information to revive broader theoretical and contextual facts.

In Mayar's (2011) opinion, it is imperative for researchers to understand that they ought to connect to the type of problem, instead of commencing with the research

employing a specific research method. When choosing to use a case study, there are several gaps in the case study methodology. The number of examples that are included in a study is an important aspect of the case study research design. Although there are times when a single case is appropriate, it is more legitimate and generalisable to include numerous cases (Mayar, 2011:83). For this study, three different colleges were used, and each college presented its own unique case about the lecturers' experiences of teaching with or without pedagogy.

A variety of data collection methods are used in case studies, the results of which hopefully agree in order to create validity. Yin (2018:15) identifies these methods as direct observation of events, phenomena, and their location; indirect observation or measurement of phenomena related to processes; structured or unstructured interviews; documentation, such as written, electronic, or printed information about the phenomena; and records and graphic representation of previously used technology that is pertinent to the case. In this study, the interviews were semi-structured, and the interviewer was attentive to the body language used by the participants during them. Literature was used as a foundation to confirm or refute participant responses, and documents were analysed to give voice and meaning to the subject under investigation in this study (Bowen, 2017:23).

In addition, Rule and John (2013) point out a number of issues that the researcher should take into consideration when recognising and choosing cases, such as the aim of the study, the class of instances to which the case belongs, the intended relationship between the class of instances and the case, the number of cases to be investigated, and practical factors like site accessibility and data availability (Rule & John, 2013:14). Three TVET colleges were selected based on convenience, as stated in Chapter 1. Time and money were major limitations to this study. Therefore, the researcher found it reasonable to choose the three TVET colleges that involved the least travelling, the least expenses incurred, and the easiest access. Also, the researcher has worked in all three of the selected colleges.

4.5 The population

A population is made up of all items or persons that fit the criteria for who or what is eligible to participate in the study, as well as those that adhere to the study's guiding principles (Creswell, 2014:9). In addition, a population is the entire group of people, institutions, objects or events from which a sample is chosen (Denscombe, 2013: 203). The population for this study was the total number of TVET colleges in the Eastern Cape.

4.5.1 Sampling

The process of sampling is planned and, at times, mathematical. The aim is to choose a sample that represents the entire population, is large enough to allow a researcher to conduct the desired analysis, and is small enough to be manageable (O'Leary, 2014:183). Mouton (2011) defines a sample as a group of subjects or individuals selected from a large group of persons referred to as a population. The key aspect of sampling is representativeness (Mouton, 2011:136). In Denscombe's (2013:62) definition, "opinion sampling" means to select from the population in order to identify the elements or people to be included in the study.

There are eight TVET colleges in the Eastern Cape. A sample will have approximately the same characteristics as the population relevant to the research in question. The sample for this study was three TVET colleges, and the participants were lecturers at these colleges in the Eastern Cape. Each of the three TVET colleges selected for this study was purposefully chosen based on convenience and accessibility.

The researcher employed convenience sampling for the purpose of selecting a sample of participants from the population of lecturers on each campus. Convenience sampling takes this to an extreme by using convenience as the main basis for selecting the sample, and not a subsidiary. The number of participants is a serious concern for design strength and research outcomes (Drew, Hardman & Hosp, 2008). Cohen, Manion and Morrison (2011) assert that sample size depends on the purpose of the study and the nature of the population under scrutiny.

Three TVET colleges in the Eastern Cape Province were the sites for the study. The sample frame for this study were the lecturers chosen from these campuses; such a sample frame is fair enough for the study and is representative of the population, as there are eight TVET colleges in total in the province (Creswell & Clark, 2007:37). Additionally, the sampling frame for each category was the lecturers who have and those who do not have a teaching pedagogy. Each lecturer in each category stood a better chance of being sampled. A stratified random sampling was used, with a list of lecturers divided into two groups: those with teaching pedagogy and those without it (Denscombe, 2013:35). Simple random sampling was used to select numbers 1, 3, 5, and 7 from the lists of lecturers with pedagogy, while numbers 2, 4, 6, and 8 were randomly selected from the lists of lecturers without pedagogy. This provided eight participants from each TVET college.

4.5.2 The pilot study

Once the questions for the interview were constructed, a pilot study was conducted before the actual data collection. Maree (2010) states that it is necessary to do pilot research with a small group, since it helps determine whether the questions are appropriate and how participants will interpret them. After that, changes may be made, if necessary, based on participant feedback.

The pre-test was carried out under actual field conditions with a group of lecturers not chosen to participate in the study. The main aim was to identify problems that the potential participants might have in understanding or interpreting questions in terms of the wording and appropriateness of the meaning. A few problems were identified, and the questions were re-examined (Kumar, 2014:191). To reiterate, the pilot study was conducted in the TVET college where the researcher is based, and there was a need for some questions to be re-examined, as participants were not comfortable with them, and viewed them as of a personal nature. The questions were revised before commencement of the actual research.

4.6 Methods of data collection

Three methods of data collection were employed, namely in-depth face-to-face interviews, document analysis and the literature review. In addition, it was necessary to analyse relevant documents and literature to ascertain whether the classes of lecturers who possessed pedagogy fared better than those lecturers who did not have pedagogy.

4.6.1 Interviews

The researcher employed in-depth face-to-face interviews to collect data from the participants. The interviews were used to gain first-hand information about people's opinions, beliefs, and attitudes, as well as their reactions towards the pedagogy of TVET college lecturers.

Interviews are defined as two-way conversations in which the interviewer asks the participants questions to collect data and learn about their ideas, beliefs, points of view, opinions, and behaviours (Denscombe, 2010:22). Interviews involve sharing ideas with the intent of solving problems (Kumar, 2014:121).

An interview is a data collection method in which an interviewer asks for information from an interviewee (Johnson & Christensen, 2008:231). Interviews in qualitative research could take various formats, and the open-ended type is that mostly employed in case studies. The aim of an open-ended interview is to uncover the opinions of the participant who is being interviewed, to uncover considerations, feelings, and meanings. It was necessary to explore by probing beneath the surface and not just assuming (Bowen 2017:28). Durance and Fisher (2005) describe in-depth interviews as formal or informal conversations with a person to get in-depth information on a certain subject. The interview offers a great chance to get information from participants by probing, examining, and making personal contact with them (Durance & Fisher, 2005:231; Maree, 2010:87).

During the in-depth interviews, questions were structured to suit all of the participants. Interview questions were repeated, and their meanings explained in certain cases where participants required clarification.

Face-to-face interviews were conducted with 24 lecturers. The language medium in TVET colleges is English, so English was used to conduct the interviews with the TVET college lecturers. As emphasised by Johnson and Christensen (2008), during the interview the interviewer clarified anything that needed further explanation for the participants, and they answered in a friendly, organised, and informative manner. During the interview sessions the interviewer also observed non-verbal clues such as body language to identify the participants' feelings, so that the researcher could change the tone and style of the interview statements to match the individual conversation styles of various participants (Johnson & Christensen, 2008).

Denscombe (2010180) defines semi-structured interviews as those where the interviewer still has a clear list of issues to be addressed and questions to be answered. However, the interviewer is prepared to be flexible and allow participants to respond to topics in any order of their choice, as long as they address the topics informatively. The questions were open-ended, and there was emphasis on the interviewee elaborating on points of interest (Denscombe, 2013). According to O'Leary (2014), in semi-structured interviews the interviewer may begin with a questionnaire guide but may adjust the questions to allow the conversation to flow. This major advantage of this method is that the researcher is enabled to collect the data that was intended to be gathered, in addition to thought-provoking and unanticipated data that materialises (O'Leary, 2014:218).

Interviewees were asked open-ended questions during the interview to encourage them to give rich and detailed responses and to allow room for flexibility. An interview guide was used to guide the interviews. The questions progressed from the simple and general to the more complex and specific. The participants were allowed to respond in whichever way they chose and felt comfortable with. Questions were repeated when necessary to ensure that participants understood and gave relevant responses. In preparation for the interviews, appointments were made with the campus managers on each campus a month in advance.

As mentioned earlier, in-depth face-to-face interviews were the primary method of data collection to collect rich data, as an interview is the main source of

evidence and is important for the gathering of case study data (Yin, 2018; Aliyu, 2015; Bowen, 2017:8). The concerns are expressed by specific knowledgeable participants who may have significant experience with the subject under study. It is incumbent on the researcher to remember and consider that interviews are only oral accounts, which are inclined to be biased by weak memory and weak and erroneous verbalisation.

The researcher has to be a good listener (Cheserek, 2012:4), so participants were urged to speak about their emotions, opinions, and experiences, including their perceptions of teaching with or without teaching education pedagogy. Since the interviews were open-ended, TVET lecturers could share their information in a relaxed atmosphere. The in-depth interviews were digitally recorded with the permission of the participants, and the recordings would provide evidence to be saved for the audit trail. After the interviews, the recordings were transcribed verbatim. Data gathered from these interviews indicated how lecturers with or without pedagogy experienced teaching. In addition, it provided data about lecturers' emotions, attitudes, and experiences of teaching with or without the knowledge of pedagogy, and assisted in answering the research questions.

A separate room on campus, away from any disturbance, was allocated for the interviews. All ethical considerations were adhered to by the researcher during the interviews. The transcriptions of the interviews were printed with large margins and increased line spacing to allow the researcher to add notes and assign codes to different sections of text in the transcript. Different coloured pens and highlighters were available for the process of coding (Rule & John, 2013:77). Sewel (2005:88) indicated that analysing and interpreting qualitative interviews is much more time-consuming than analysing and interpreting quantitative interviews, and they are more subjective than quantitative interviews because it is only the researcher who decides which quotes or specific examples to report.

4.6.2 Document analysis

Document analysis is an efficient process for reviewing or assessing documents both in print and electronic (computer-based and Internet-transmitted) form. It

requires that data be examined and interpreted in order to elicit meaning, gain understanding, and develop empirical knowledge. Document analysis is often used in combination with other qualitative research methods, as a means to combine methodologies in the study of the same phenomenon. The qualitative researcher is expected to draw on many sources of evidence; that is, to look for merging and validation through diverse data sources and methods: "Apart from documents, such sources include interviews, participant or non-participant observation, and physical artifacts" (Bowen, 2017:27–28).

Document analysis was an additional data collection method that was employed for this study. Aside from the interviews, data was gathered from various sources, such as text and documents, both published and unpublished. These documents were used because they are rich sources which provided evidence for this study. Documents also contain data that can no longer be be observed; in addition, documents preserve details that participants can remember, and are able to trace transformation and enhancement – in this study, regarding lecturers' performance. Document analysis also points to questions that need to be asked or situations that need to be observed; making use of it is a way to ensure research is critical and comprehensive (Bowen, 2017:29).

The documents analysed in this study included the November 2017 college analysis of results, the 2017 college moderation reports of the subject files for all three TVET colleges, and the national policy on TVET college lecturer qualifications. They were referred to so that the phenomenon studied was understood more clearly, and to confirm results (Yin, 2018:2). The college analysis of results and college moderation reports were retrieved from the selected TVET colleges, while the policy on qualifications was retrieved from the DHET website. The documents that the researcher used assisted in establishing whether there were any teaching gaps between TVET college lecturers who teach with pedagogy and those who teach without pedagogy. It was important to thoroughly evaluate and investigate the subjectivity of documents and my understanding of their data in order to preserve the credibility of my research (O'Leary, 2014:4). The nature of these documents did not allow the researcher to

develop emerging themes; however, common findings from each college report will be presented in the next chapter.

4.7 Data analysis

Data analysis is the process of condensing and comparing to obtain theoretical ideas from empirical data. Huberman and Miles (2002) state that qualitative data analysis involves a methodical procedure of filtering, recording, and arranging materials according to central subjects and themes. Data analysis is defined as "a rigorous process that involves organizing, accounting for, and explaining the data, in short, making sense of the data in terms of participants' definitions of the situations" (Cohen et al., 2011:537).

Recorded information was transferred to a laptop, which permitted easy repetition of selected recordings. Files were selected and repeated several times, until the message was clear for all categories of participants. Transcriptions were printed on A4 pages, and that helped when the data was coded and stored. During the analysis stage, first data reduction was done, which involves careful reading of the recorded material, identification of the main themes of the studied process or behaviour, and categorisation of the material for the purpose of analysis or presentation. Secondly, data organisation was done, which is the process of assembling information around certain themes and points, categorising that information in more specific terms, and presenting the results in some form. Thirdly, the interpretation of data was done, which involved making decisions and drawing conclusions related to the research questions. Identifying patterns and regularities and discovering trends and explanations are aspects of this process (Denscombe, 2013:235).

Each piece of raw material was identified with a unique code for reference purposes. Because the data is irreplaceable, the researcher also made a back-up copy of everything. Printed scripts were kept separately in a safe place as a back-up. Themes and categories were systematically identified across the data sources and then grouped together using different highlighters. Themes were developed by looking for concepts (or fewer, more abstract categories) that

encapsulated the categories (Denscombe, 2013:240). Cohen et al. (2011:600) indicate that coding entails "identifying words and segments in the transcripts, sometimes known as unitizing". Denscombe (2010:284) points out that coding is the analysis strategy many qualitative researchers employ to help them locate key themes, patterns, ideas, and concepts that may exist within their data. Creswell and Clark (2007:125) add that while the coding of data is the formal representation of analytic thinking, generating categories and themes constitutes the tough intellectual work of analysis.

Themes were developed by choosing an appropriate sample of texts or images. The criteria for choosing such a sample were explicit. The text was divided into smaller components, and relevant categories were developed for analysing the data. The researcher needed to have a clear idea of the kinds of categories, issues, and ideas that he was concerned with, and how these might appear in the text. This took the form of ‘key words’ associated with the theme. The units were then combined into categories. It was necessary to pay meticulous attention to the text to code all the relevant words and sentences. These codes were either written on the text, or the frequency with which they occurred was counted. The researcher then analysed the text in terms of the frequency of the units and their relationship with other units that occurred in the text. Once the units had been coded, a more sophisticated analysis was possible, that linked the units and attempted to explain when and why they occurred in the way they did (Denscombe, 2013:282).

4.8 Triangulation

When studying some facets of human behaviour, triangulation is the use of two or more sources. Utilisation of many sources to gather data contrasts with the ubiquitous and frequently open tosingle-method approach that is usual in a significant amount of social science research (Briggs & Coleman, 2007:10).

Triangulation was used as a strategy that helped to eliminate bias and at the same time dismiss the probable opposing explanations regarding some social phenomena. It means comparing various sources of evidence to determine the

accuracy of information or phenomena. It is another manner of cross-checking the evidence or data to determine the extent of its authenticity. In this study, triangulation by using different research methods, like interviews and document analysis, enriched the descriptions of lecturers' views of the pedagogy of TVET college lecturers, and sought corroboration of the literature findings with their statements about the phenomena. Triangulation was the principal tool to ensure the confirmability of the study.

4.9 Trustworthiness

To ensure authenticity in qualitative research, an examination of trustworthiness is imperative. While establishing good-quality studies through credibility, transferability, dependability, and conformability in qualitative research, "trustworthiness of a study is central to concerns which are generally referred to as validity and reliability in quantitative studies" (Bashir, Afzal & Azeem, 2008:6). In this study the trustworthiness of the data collected was established through credibility, transferability, dependability, and conformability. Member checking was necessary, and the participants were given access to the transcribed data in order to validate that it was a true reflection of the interview that was conducted with them, to ensure trustworthiness (Creswell, 2014).

4.10 Bracketing

Bracketing is a method used by some researchers to mitigate the potential detrimental effects of unacknowledged presumptions related to the research and, by this means, increase the rigour of the project. Occasionally a researcher is too close to the research topic, which could occur before and progress throughout the qualitative research procedure. By bracketing, the researcher can protect themselves from the collective consequences of scrutinising what could be content. A long, drawn-out research attempt on a sensitive and difficult topic can impact the researcher, reduce the research to a laborious undertaking, and consequently corrupt the outcomes and explanations. However, bracketing could alleviate unfavourable consequences of the research attempt and, significantly, it

enables the researcher's process of attaining in-depth intensities of contemplation.

The chance for extended, in-depth thinking may improve the sharpness of the research and enable deeper, more comprehensive analysis and findings (Tufford & Newman, 2010:8). The researcher did not allow his beliefs and opinions regarding TVET college classroom teaching experiences to influence the findings of this study.

4.11 Transferability

Transferability in qualitative research is the degree to which the results of research may be applied or transferred beyond the boundaries of the study. Transferability implies that the results of the research study could be applicable to similar situations or individuals. The knowledge obtained in one context may be relevant in another research study, and investigators who carry out research in another context may be able to utilise certain concepts that were initially developed elsewhere (Management, 2015:15).

It was critical that the findings of this study be transferred, so that they could be retrieved and used by other researchers conducting research in a similar context. Widodo (2012:16:8) suggested that "firstly, researchers should provide data identity (e.g., data code and number, data collection date, involved participants, and data collection methods)." This information enables researchers to retrieve the data easily and allows for tidy, organised data management. Since exposing a participant's identity is of great ethical concern, the researcher is advised to use pseudonyms instead of the participants' real name. This ethical issue was explained prior to commencement of the interview. In addition, researchers are advised to include a column for transcription symbols, to give the reader a set of [spoken] conventions for displaying actions and utterances in naturalistic situations. These symbols assist the reader to read narrative data.

A researcher should transcribe the raw data in dialogue format, to indicate the dialogue between participants and the researcher. If participants and the researcher wish to verify information taken from a transcript, they may easily

double-check the information in the original transcript. When conducting member checking, a researcher must allow time for data feedback, verification, and accuracy. The attributes of a transcript layout allow researchers to analyse specific information more effectively, and to revisit this information to look for newly discovered information (Widodo, 2012:2).

4.12 Ethical considerations

Ethics is rooted in the ancient Greek philosophical inquiry of moral life. It refers to a system of principles that can critically change previous considerations about choices and actions. It is said that “ethics is a branch of philosophy that deals with the dynamics of decision-making concerning what is right and wrong” (Bashir et al., 2008:4). The following points briefly discuss how the researcher has considered research ethics in the study.

4.12.1 Autonomy and respect for dignity

The rights to benevolence, respect for dignity, and loyalty are all directly related to the question of confidentiality and anonymity. When personal comments cannot be linked to the subject's identity, anonymity is safeguarded (Fouka & Mantzorou, 2011:4). According to Rule and John (2013), ethics comprises the idea that self-rule should not be replaced because of the research. Researchers are required to respect and protect participants’ right to be knowledgeable, to determine whether to participate or not, and to choose to withdraw from the study.

All records of this study were kept confidential, and only the researcher knew who had participated in it. All participants were assigned a letter of the alphabet, which was only known to the researcher. The researcher ensured the participants’ privacy, confidentiality, and non-identification, gained permission from the gatekeepers and informed consent from participants, and was not dishonest in securing participation (Rule & John, 2013). The researcher maintained the notion that the dignity and worth of participants should be considered and respected at all times during the study. Ethical considerations were applied throughout the study and not only during the interviews.

4.12.2 Informed consent

Informed consent was obtained from each participant. Informed consent is the major ethical issue in conducting research. It means that “a person knowingly, voluntarily and intelligently and in a clear and obvious way, gives his consent who signed voluntary consent to participate in the study” (Kumar,2014:8). According to Fouka and Mantzorou (2011), consent involves the procedure by which an individual may choose whether to participate in a study. It includes the rights of autonomous individuals through self-determination and strives to avoid incidents relating to the reliability of the participant and to protect personal rights and truth. Voluntary and informed consent should incorporate a synopsis of the study and the reason for it, as well as what selection of the research subjects and procedures entailed. It is necessary to explain whether the study could cause any physical harm or awkwardness, an invasion of privacy or any danger to dignity. Since this study could not cause any harm or danger to the participants, this clause did not apply.

The researcher informed participants about the research, and his task was to ensure that they understood the purpose and methods to be used. The participants were also made to understand that they had a right to withdraw from the study at any time without penalty. The explanation included the research question, aim and purpose of the study, and these were discussed with those who agreed to participate. The nature of the study, time, commitment and involvement required of the informants were explained.

4.12.3 Justice

Gomm (2000:108) explains that based on the obligation to act justly or impartially, the researcher has a responsibility to treat others with respect and refrain from taking advantage of, abuse, or discriminate against them based on their gender, class, age, race, sexual orientation, or other protected characteristics. According to the justice principle, "the researcher should, in theory, be able to generalize any personal norm of action used for all participants" (Denscomber,2010:55) All

participants, including those who declined to participate or withdrew from the study, received the same level of care.

4.12.4 Beneficence

The source of beneficence (or non-maleficence) is grounded on the duty to do good and avoid doing harm to others (Gomm, 2000:110). The researcher employed the standard of support based on 'Do unto others as you would have them do unto you' in ensuring that all participants were protected and free from any harm. Although physical or psychological harm were not likely to occur in this study, the researcher had to confirm that at every stage in the research process, the research participants, their organisations, and their communities were not harmed in any way. In addition, he needed to comply with research obligations such as providing feedback, intervention, or follow-up if this was negotiated (Rule & John, 2013:112).

4.13 Conclusion

A qualitative case study design was employed to carry out the inquiry on the classroom teaching experiences of TVET college lecturers who teach with or without pedagogy. The methodology used in this study was highlighted and discussed in this chapter. The research approach was defined and supported by a theoretical overview, and research questions provided motivation for the study.

In Chapter 5 the data collected using the methods tabled in this chapter will be presented and analysed.

CHAPTER 5 DATA PRESENTATION AND ANALYSIS

5.1 Introduction

The preceding chapter detailed the research methods that were employed in this study. This chapter presents the data that were collected according to the data collection methods mentioned in the previous chapter. The data that the researcher collected from TVET college lecturers, and analysed to identify their knowledge or lack thereof regarding teaching pedagogy and its relevance, is presented. The demographic information pertaining to the participants in the study follows.

5.2 Demographic characteristics of all participants

The demographic information that was used in this study included age, gender, qualifications, developmental courses attended, the subject the participant was currently teaching, as well as number of years teaching in the TVET college sector. This biographical information was useful to this study, because it gave a clear picture of the experience that the participants had regarding the issue under investigation.

Interviews were conducted in all three selected TVET colleges in the Eastern Cape with lecturers who have a teaching qualification, including teaching education pedagogy, and those who do not, to gather in-depth, first-hand information in response to the questions on the interview schedule (Appendix D). Sections 5.2.1 to 5.2.3 represent the biographical information of the participants who were interviewed for this study, by college.

5.2.1 TVET college A

This college was chosen because it had more lecturers who were not teachers. The campus has a total of 43 lecturers, 17 of whom do not have teaching qualifications. Four lecturers with teaching certification and four without were interviewed. Seven female lecturers and one male lecturer, aged between 25 and

50 years, participated from college A. Their qualifications range from academic qualifications (for example, a National Diploma in Information Technology), to educational qualifications such as a bachelor's degree and a PGCE. Three of the lecturers have not attended any developmental course, such as an assessor course. Their teaching experience in the TVET college ranges from 2 to 8 years; two of them have additional experience in school teaching, and another has university teaching experience over and above the TVET college teaching experience.

Table 1 College A participants

Partci-pants	Age (yrs)	Gender	Qualific-ations	Other courses	Subject	Experience
A	35	F	BTech HR PGCE	Assessor Moderator	Office Practice	7 years
B	31	F	ND HR BTech HR BCom Hons Currently: PGCE	Assessor Moderator	Personnel Management	8 years
C	50	F	BEd Senior Teacher's Diploma	Facilitator	Mathemati cal Literacy	15 years at school 5 years at TVET college
D	26	M	BCom	N/A	Econo mics	2 years
E	25	F	ND Office Administ-ration Currently: PGCE	N/A	New Venture Creation	3 years
F	34	F	ND Accountin g	N/A	Financial Management	6 years at school 5 years at TVET college

			BTech Accountin g			
G	36	F	BCom	Assessor Moderator	Financial Manage-ment	8 years
H	45	F	ND Informatio n Technolog y PGCE Currently: BEd Hons	Train-the-trainer Internat-ional Computer Driver's Licence MS Profess -ional	Computer Practice	15 years at a universit y 4 years at a TVET college

HR = Human Resources, ND = National Diploma

5.2.2 TVET college B

At TVET college B the campus has 13 lecturers in total for Business Studies. It should be noted that this campus offers both Business Studies and Engineering Studies; however, Engineering Studies was on an academic break when the data was collected. Of the 13 lecturers, five do not have a teacher qualification. Six female lecturers and two male lecturers were interviewed, with ages ranging between 30 and 60 years. Two of them have never attended any developmental course. Qualifications of these participants varied from National N Diplomas (NND) to a Master's degree. Of the four participants with teacher qualifications, three have academic qualifications coupled with a PGCE, while the other has a BEd and BEd Honours. Only one participant has 4 years' experience at a university and 4 at an agricultural college as well as 8 years at a TVET college, while the rest of the participants have TVET college teaching experience of between 3 and 9 years.

Table 2: College B participants

Partici-pants	Age (yrs)	Gender	Qualific-ations	Other courses	Subject	Experience
A	30	F	NNDFinancial Manage-ment	Assessor Moderator	Comput-erised Financial Systems	6 years
B	35	M	Postgrad-uate Diploma: Business Administr-ation	N/A	Public Admini-stration	3 years
C	30	F	BCom PGCE	Assessor	Financial Account-ing	4 years
D	36	F	ND Cost Accounting	N/A	Cost Account-ing	7 years
E	36	F	ND Information Technology PGCE BEd Hons	Assessor	Computer Practice	9 years
F	40	F	BCom Public Manage-ment	Assessor	Public Admini st-ration	3 years
G	60	F	Hons in Commun-ication Master's in Environ-ment and Develop-ment PGCE	Assessor	Commun-ication	8 years: 4 years in university 4 years in agricultural college

H	30	M	BEd BEd Hons	Assessor Moderator	Public Administration	8 years

5.2.3 TVET college C

The campus at TVET college C offers Engineering Studies and has a total of 38 lecturers, of whom 6 do not have a teaching qualification. Five male lecturers and three female lecturers were interviewed, with ages ranging from 30 to 54 years. Only one of them has the traditional teacher qualifications and has not attended any developmental courses. The qualifications of these participants vary from artisans to National Diplomas (ND). Of the four participants with teacher qualifications, three have academic qualifications coupled with a PGCE, while the other has an artist's qualification and National Higher Diploma in Education (NHDE). Only one participant has 15 years' experience in school teaching and only 9 months' experience teaching in a TVET college, while the rest of the participants have TVET college teaching experience ranging between 4 and 25 years.

Table 3: College C participants

Participants	**Age (yrs)**	**Gender**	**Qualifications**	**Other courses**	**Subject**	**Experience**
A	40	F	Senior Teacher's Diploma Further Diploma in Education	N/A	Life Orientation	15 years at school 9 months at TVET college
B	36	M	ND Electrical	Assessor	Electrical	9 years

			Engine er-ing		Syste ms	
C	54	M	Artisan Diplom a NHDE - Techni cal Educati on	Assess or Modera tor	Electri cal Infrast r-ucture	25 years
D	49	F	NND Clothin g NPDE Advanc ed Certific ate in Educati on	Assess or Modera tor Facilitat or	Life Orient -ation	23 years
E	36	F	BA Comm un-ication PGCE	Assess or	Com munic ation	4 years
F	35	M	ND Civil Engine er-ing	Assess or	Drawi ng	7 years
G	30	M	ND Electric al Engine er-ing	Assess or	Electri cal Infra-struct ure	5 years
H	33	M	ND Electric al Engine er-ing	Assess or	Curre nt	5 years

What these colleges had in common was that they all had younger and older lecturers with extensive experience of teaching at a TVET college. There were a few lecturers who did not yet have a teaching qualification but were currently

registered for a PGCE and will eventually have one. Because not many lecturers have a Master's degree, this is a concern, since TVET college lecturers are regarded as academics. Academics, especially those in vocational education, have to keep abreast of changes in the subject matter and content that they teach, as well as knowledge of the latest technological techniques (DHET, 2013). In some colleges, lecturers had the National N Diploma, meaning that there could be a content knowledge gap because they studied up to the N6 Level plus in-service training. In all three colleges, there was at least one lecturer with a Senior Teacher's Diploma, a Further Diploma in Education, or an NHDE. The research area investigated in this study was the pedagogical qualification or non-pedagogical qualification of TVET college lecturers as a cause of problems in TVET college lecturing.

Central to this chapter is the question of how lecturers experience teaching in TVET colleges, with or without knowledge of teacher education pedagogy. Coming from a mainstream school to a TVET college is a significant change – and specifically, not having knowledge of teacher education pedagogy is problematic. Apart from adapting to a new environment, having to employ vocational pedagogy and change methods of teaching is a challenge. Gallicano (2013:29) points out that the crux of change is how individuals come to grips with this reality. The impactof change is extremely underestimated, as are the aspects and developments that describe it, because it is a reality. True change comprises the individual traversing a variety of phases of insecurity, apprehension, and exertion, which typify real change and, in fact, are examples of an individual's subjective reality that are generally overlooked (Gallicano, 2013:50). Subjective reality concerns lecturers' realities and their emotions in particular circumstances, as well as the reactions that originate from this context. While some lecturers experience exasperation with teaching at a TVET college, regarding vocational education pedagogy, education managers might experience frustration at what they perceive as resistance to change (Gallicano, 2013).

Gallicano (2013:46) states that "It isn't that people resist change as much as they don't know how to cope with it," and distinguishes between two types of non-change, namely false clarity without change, and distressing clarity without

change. False clarity happens when individuals are under the misconception that they have changed but have merely adapted to the new routine. A number of the TVET lecturers trust that their teacher training has prepared them to teach anywhere. This deficiency in their training preparation or training for the racially diverse classroom becomes apparent in the interviews, and while this aspect is given considerable attention, the lack of knowledge of teacher education pedagogy could cause undue frustration. 'In-service training' is also discussed at length, because TVET lecturers believe that they will benefit from courses dealing with issues pertaining to teaching in a TVET college in particular.

5.3 Coding of raw data

The researcher transcribed the interviews and began reading them many times to ensure that he was familiar with their contents. Similar answers were highlighted with similar colours, and emerging themes were generated and coded. The three colleges were labelled as A, B, and C, while the lecturers in each college were labelled as Participants A to H. This exercise was executed to ensure that there is no link between the responses and the participants in this study. Themes and sub-themes emerged in response to the questions posed by this study, as outlined below.

The next section presents the data that was collected and analysed and the themes that emerged after the interviews were transcribed. The main themes answer the research questions of the study. Under each main theme, sub-themes emerged based on the participants' views, to elaborate their responses further.

The following table presents the themes that were developed based on the data from the interviews.

Table 4: Themes

Theme	Sub-themes

Theme 1: TVET college lecturers and pedagogies	1. Understanding pedagogy Understanding vocational curriculum General pedagogy vs vocational pedagogy
Theme 2: Relevance of general pedagogies to a vocational class	Importance of pedagogy in a vocational class 2. Anticipation of PGCE Role of teacher training in vocational class 4. Performance of lecturers
Theme 3: School curriculum vs vocational curriculum	Learning outcomes school vs TVET college Delivery of learning outcomes: schools vs TVET college
Theme 4: Bridging the pedagogical gap	TVET college lecturer qualifications 2. Provision for closing the gaps The competence of TVET college lecturers

The first column shows the four themes that emerged from the interview data that was analysed. Each theme answers a research question; for example, theme one answers research question one. Under each theme, sub-themes emerged, where the data that was collected is presented. All these themes and sub-themes are presented below under the classroom teaching experiences of TVET college lecturers who teach with or without pedagogies.

5.4 TVET college lecturers and pedagogies

TVET college lecturers need to acquire skills in facilitating learning and be able to respond to the situation of each learner. This view is supported by DoE (2007:24), who asserts that “All teachers and lecturers need a skill to in recognise, identify, and address barriers to learning and creating inclusive and enabling teaching and learning environments for all learners including those with disabilities and other special needs”. Outstanding teachers (including lecturers, trainers, tutors, and coaches) engage students with well-designed courses, facilities which are fit for purpose, and a good level of resources – which are

necessary if any kind of educational provision is to be excellent (Lucas et al., 2012:12).

Based on the information presented in the literature review, it was important to ask questions about the participants' understanding of pedagogy, vocational pedagogy, and the importance of pedagogy in teaching, as well as to compare the results for lecturers who have a knowledge of pedagogy with those who do not. The understanding of pedagogy is important because it involves different decisions that lecturers must make in their daily teaching. It assists lecturers in understanding and accommodating the diverse learning needs of their learners. With pedagogy, teaching becomes as learner-centred and outcomes-based is possible. Participants' views on understanding pedagogy are presented below.

5.4.1 Participants' views on pedagogy

Some participants viewed pedagogy as something that has to do with teaching methods, while others responded that it refers to the way you teach, influenced by the type of students you have. Participant A of college C confirmed this:

Yes, I do understand teaching methods, but did not understand the term pedagogy.

Participant B of college C said:

I only heard about the term pedagogy when we were doing the campus improvement plan. I have heard that it has to do with 'If you are teaching hospitality, you need a teaching course as well in order improve your teaching'.

Participant A of college A responded:

> *Pedagogy is how I teach influenced by the type of students I have.*

In the same college, participant C's response was:

> *Pedagogy is the way you teach.*

Some participants in all three colleges indicated that they have a limited understanding of what pedagogy is.

It should be noted that two lecturers who have a teaching qualification and others who do not have a teaching qualification gave the above responses. This shows that there is little understanding of the term pedagogy among TVET college lecturers, with some lecturers having no idea of what the concept means at all. The courses for the teaching qualifications might not be using the term often, although it is supposed to be included in the curriculum. However, after the researcher explained the term, participants gave the following responses:

Participant E of college A's definition was that:

Pedagogy is the teaching process and methods

Participant G of college B added that:

It is the study of the ways on how to teach or teaching methodology

Participant D of college B explained:

Pedagogy examines behaviour and mentality of people in a society.

Participant G of college C viewed pedagogy as*:*

Teaching methods – how you deliver the content.

The above responses highlighted that the term 'pedagogy' is not often used in TVET colleges; hence the participants understand better when pedagogy is referred to as 'teaching methods', although pedagogy and teaching methods are not the same. When another question was posed to all the participants, asking what their understanding of vocational pedagogy was, the majority indicated that they had never heard of the term. Only two participants responded based on their general knowledge, as presented below:

Participant H of college A recalled:

Vocational pedagogy is being a teacher, the ability to transfer knowledge and skills to learners.

Participant G of college B said:

Vocational pedagogy should be dealing with methods of teaching in a vocational training and skills

Participant B of college C stated:

I am not aware of vocational pedagogy, but I remember there were lecturers that were registered for VEOP, I am not sure if it was vocational pedagogy.

Since vocational pedagogy is under-researched, it is evident that TVET college lecturers do not fully understand both general pedagogy and vocational pedagogy. Similar responses were given by participants, while some thought it was VEOP (the Vocational Education Orientation Programme). Most of them highlighted the fact that they had never heard of the term, including participants who have been working in the TVET sector for more than ten years.

The finding that TVET college lecturers do not understand the concept could be a confirmation of the DHET report which indicated that almost half of TVET college lecturers are academically qualified, without a teaching qualification. These lecturers might or might not be using the correct pedagogical methods in their teaching. It is not possible to master something that you do not have a foundation in; subsequently, it is important for lecturers to have a foundational knowledge of pedagogy so that it can be correctly applied in their daily teaching.

The main concern regarding this finding is that both new and experienced TVET college lecturers, professionally qualified or not, could not give straight answers to the question – although their profession requires them to apply pedagogy in their everyday lessons. Bhowmik et al. (2013) confirm that through pedagogy, teachers observe and assess students in the context of ongoing classroom situations, like collecting and interpreting a variety of types of evidence to evaluate where each student is in a sequence of learning and development. This observation and assessment of students is done to establish how to move from assessment to decisions about the curriculum, social support, and teaching strategies, to increase the prospects of successful learning (Bhowmik et al., 2013:5). Consequently, pedagogy is required for TVET college lecturers, as part of their professional competence.

5.4.2 General pedagogy vs vocational pedagogy

Since most participants were not able to respond to the question that was posed regarding whether there was a relationship or differences between general pedagogy and vocational pedagogy, the researcher tried to explain the terms so that the participants understood them. After the explanation, some of the lecturers were able to give their opinion on whether there are any differences or interrelationships between general pedagogy and vocational pedagogy.

Participant D of college A indicated:

I do not think that there is any difference, except that vocational pedagogy can have some limitations, because it will only be applicable to vocational curriculum, while general pedagogy cuts across.

Participant C of college C added that:

I do not believe that there should be any difference between the two, but vocational pedagogy should be added on top of general pedagogy to accommodate TVET college lecturers.

The above participants felt that teaching is the same, and that there should be no difference between general pedagogy and vocational pedagogy. The only concern that one of them raised was that vocational pedagogy could be limited to only a vocational curriculum.

In contrast to the views stated above, some participants strongly believed that there should be a difference between these two pedagogies. They pointed out that since the learning outcomes are not the same in schools and TVET colleges, the teaching methods that are to be used in achieving those learning outcomes should not be the same.

In college B, participant A felt that:

There should be a difference. Vocational pedagogy should deal with the content of vocational curriculum, and to understand that you prepare students for a workplace. General pedagogy deals with teaching only.

In the same college (B), participant B added:

Yes, there should be difference. Vocational curriculum should be practically inclined. You cannot be expected to use the same methods of assessments.

Participant B of college C responded as follows:

There should be a difference between general and vocational pedagogy. Vocational pedagogy should prepare lecturers to teach in vocational class, and I see no point of TVET college lecturers to do a general pedagogy.

It is very important for TVET college lecturers to have a broader understanding of 'pedagogy' because it is the starting point for their professional careers. Pedagogy will assist lecturers in understanding different teaching strategies that they can use to plan and deliver their lessons. With the pedagogical understanding, it will be easy for them to create a conducive learning environment that will consider each learner's unique learning needs, using relevant and appropriate teaching methods per lesson, per class, and per subject. They will shy away from using the one 'size-fits-all' approach. The participants stated that vocational pedagogy should equip lecturers with practical teaching and designing of practical assessments, and these areas are not covered by the general pedagogy. They also pointed out that vocational pedagogy should prepare TVET college lecturers to understand that the curriculum that they offer prepares learners for the workplace, and they should remember this when they prepare their lessons.

5.4.3 Pedagogy and vocational classes

All the participants in this study agreed that there is a need for TVET colleges to employ pedagogy: 95% of the participants believed that there is a need for vocational pedagogy, and 5% felt that general pedagogy is relevant to the TVET college class. All the participants believed that content alone is not adequate, because pedagogy is important as long as there is teaching involved. They believed that sound content knowledge is recommended for a TVET college lecturer, but vocational pedagogical knowledge will help the lecturer to deliver the content effectively if it goes hand in glove with the content knowledge.

In college A, participant B recalled:

Pedagogies helped me to understand the ethics of an educator, and they opened my eyes to how present a meaningful lesson.

In college B, participant C also confirmed:

Pedagogy helped me to become a pastoral educator, to become closer to students. Previously, I would not even want students closer to me, but after the course, I allow them to be closer to me.

In college B, participant E added:

Pedagogy assisted me on how to manage a classroom, how to use different teaching styles as well as how to summarise the syllabus when you are running out of time

Participant A of college C elaborated on the importance of pedagogy:

I am still using the pedagogies that I have learned many years ago, and they do assist me in a vocational class. Currently, the curriculum has changes, even in schools, but I was still using the general pedagogies that I know. When there is a change in curriculum, we are only invited to a workshop for a week, and that is not enough.

All the responses presented above confirm that the general pedagogies which participants have learned from their teaching qualifications assisted them in delivering lessons in their vocational classes. They highlighted ethics, classroom management as well as curriculum delivery techniques as what they had learned from studying pedagogy. One participant with an older teaching qualification added that she is still using the general pedagogy that she learned more than 15 years ago, and it still assists her in her classes.

A follow-up question was posed regarding how general pedagogy had assisted participants for practical classes. Some participants indicated that their subjects are practical, for example Mathematics and Computers, and general pedagogy assisted them with practical teaching. However, participant A of college C did not concur with the above responses. She felt that the general pedagogy covered in

her teaching qualification did not assist her with the practical aspect of her subject, as it was designed based on the school curriculum, where there is no ICT component:

I struggle with practical in my Life Orientation subject which is computer. The general pedagogy of Life Orientation only dealt with theoretical part, since in schools there is no ICT component.

The view of this participant confirms what the literature in Chapter 3 revealed – that general pedagogy is somehow relevant to the vocational class, although there are some gaps when you use it alone in a vocational class, for example, workshop teaching. This concurs with the view of another participant, who suggested that vocational pedagogy should be added over and above general pedagogy.

5.4.4 Academic performance of lecturers

The participants in this study who have a knowledge of pedagogy indicated that they had achieved good pass rate results of between 80% and 100%. To authenticate these results, the researcher verified them from the college results, and they were valid. Based on these results, there appears to be a validation of the earlier argument, which stated that pedagogy is important in any teaching and learning environment as it equips teachers with professional knowledge of teaching and creating a conducive learning environment. Inasmuch as there seems to be a concern about the relevance of general pedagogy in a TVET class, the results of this study confirm that general pedagogy somehow does assist TVET college lecturers in delivering their lessons effectively, as the responses below reveal.

In college A, participant A confidently said:

> *My results, on average are at 90%, and I am satisfied with them.*

In college B, participant G stated:

My overall results are satisfactory. However, when I do my analysis, my pass rate drops because of the students that are not deregistered, and those that did not

meet the minimum requirements to sit for examinations. However, when I am looking at only those students that wrote, my results are between 90%–100% pass. The problem is that sometimes they do not read and understand the questioning, and they do not give detailed answers. I always advise them to put more meat on the bones of the skeleton.

In the same college (B), participant C stated as follows:

My results are between 70%–80% on average. I am happy with them because they vary, as sometimes I get 90% in other semesters, depending on the students that I have in that semester. I do have a gap, I lack practical skills teaching.

In college C participant D was also satisfied with her 100% pass rate. There are concerns, though, as one participant highlighted the issue of students who had not deregistered and how it affected her results. Another participant raised the issue of a lack of practical teaching, for example, workshops, as a gap that the general pedagogy does not cater for. It appears that there might be students who were not deregistered by the TVET colleges. However, the overall performance of students cannot be affected by that, as the pass rate is calculated based on students who wrote the examinations. Since these participants are satisfied with their results, it cannot be verified that their students are more knowledgeable than others, as the teaching methods they employ in their classes cannot be verified.

In contrast, lecturers with no pedagogy showed an average pass rate of between 60% and 80%. Some were satisfied with their performance, claiming that it is above the national target, while others were not satisfied at all, claiming that they would only be happy once they reached a 100% pass rate.

Participant D of college A responded as follows:

My results are at 70% pass, and I am not satisfied. I do have gaps in my teaching knowledge and skills that I have identified. The major gap is on the in-depth understanding of the curriculum, drafting of the lesson plans and implementing them in class. This gap can be addressed through skills development trainings.

In college B, participant D stated:

I have an average result of 60%, and I am not happy with that. I believe I can do more. The gap that I have identified is that I need a deeper knowledge of the content as well as practical. These gaps can be bridged if I can advance my studies and then be exposed to practical, so that I can be able to combine theory and practical in my lessons.

In contrast, participant B of college C highlighted that:

My results on average are not less than 60% pass. I am satisfied with them because they are above the national target. I understand that there is a gap in my teaching knowledge and skills as I currently do not have a teacher qualification.

The responses given by the participants who do not have knowledge of pedagogy clearly proved that there is a gap in their teaching skills as a result of not being professionally qualified. They all indicated that the major gap was a lack of knowledge regarding pedagogy, with one participant highlighting the fact that practical exposure to lecturers in the industry is also key. It is clear from these responses that lecturers themselves acknowledge their skills gaps, and that a training and development plan is required in order to equip them.

The next section presents the data collected in answer to the second research question of this study.

5.5 The relevance of general pedagogies to a vocational class

In some countries there is a difference in the way pedagogy is shaped between learning in school-based and work-based environments. For example, in Denmark the teaching methods in the school-based part of VET programmes are more traditional compared to the more practical-oriented part in the workplace (Green, 2015:5). It is suggested that variations in teaching practice between different learning environments and venues have to do with traditions within the specific skilled occupation or profession, and variation in the level of regulation in the school-based and work-based components of education. The teaching venue may support or hamper more advanced methods, which are also dependent on different curricula and occupations. The application of learner-centred approaches is also strongly dependent on the choice and beliefs of the teacher

(Cedefop, 2015:21). The type of curriculum that is delivered and the learning outcomes contained in each curriculum influence teaching.

The participants' views on the similarities and differences between school teaching and TVET college teaching are presented below.

5.5.1 Academic and vocational teaching

Mixed feelings were revealed in the responses, but most participants in this study confirmed that there is a huge difference between school and TVET college teaching, while a few did not respond, claiming that they were never involved in school teaching.

In college A, participant A replied:

Yes, there is a difference. In TVET you teach practical, while in a school you teach theory.

In college B, participant F added:

Yes, there is a difference. Vocational curriculum is of a higher level; we lecture rather than teaching. It gives students a sense of responsibility and independence. We prepare them to be able to apply what they have studied in the workplace.

In college B, participant G indicated the following difference:

Vocational curriculum caters for older students. The approach is different from school, because it focuses on theory, practical and application, while school focuses on theory only.

In college C, participant D recalled:

I can say vocational curriculum is 60% practical and 40% theory. I am not sure about school education.

This study confirmed that there is a difference between teaching in schools and in TVET colleges. The first difference is in the type of students that are in these two schooling systems. In a TVET college there are older students than those at

school. Secondly, the vocational curriculum expects lecturers to teach both theory and practice, while schools offer theory only. In schools, students are prepared for further learning, while in TVET colleges they are prepared for employment or self-employment. Lastly, the TVET college curriculum is at a higher level. Therefore, teaching in schools cannot be identical to teaching in TVET colleges, and the pedagogy used cannot be identical; additionally, the learning outcomes are not the same.

5.5.2 School subject outcomes vs vocational subject outcomes

The learning outcomes are what influence learning, whether at school or at a TVET college level. Some participants believed that learning outcomes for school subjects and TVET college subjects were the same.

College A, participant B said:

I do not know the learning outcomes of a school subject. The vocational outcome is skills and has practical element.

In college B, participant C stated:

Learning outcomes are the same; the Financial Accounting we teach is equivalent to Grade 10–12 in schools.

In college C, participant C said:

Well, outcomes could be the same, especially if you look at your National Certificate Vocational (NCV), comparing with Grade 12; the levels are not too different, except that in TVET we are balancing with practical. But when it comes to theory, I should think they are the same.

A participant indicated that he does not know the learning outcomes of his subject at school. That is understandable, because his majors are not offered at school. The other two participants felt that learning outcomes at school and college are the same regarding theory, with the practical side being a component in TVET college classes. However, the following participants disagreed with the above views, and confirmed that there is a difference between these learning outcomes.

In college B, participant G asserted:

The outcomes are not the same for my subject. At school level, they do a lot more of creative writing, essays, poetry, books, etc. It is more of a traditional way of teaching English. Vocational Curriculum in Communication, the focus is very much on a business language. The learning is about to produce business letters, reports, being able to summarise. It is about learning to write in a concise and clear way, and is factual, rather that writing about 'my day in the city'.

Participant E of college B stated:

There is a difference. School education unpacks more than vocational curriculum.

Participant A of college C responded:

Yes, there is a difference in learning outcomes; maybe because TVET college students have more understanding, they participate more. Example: when I introduce a topic, I start from the known to the unknown, and they participate, while the students from schools do not really participate, due to the limited knowledge they have, amongst other factors.

Participant B of college C stated:

The teaching ways should be different between teaching in a school and in a college, because at a college teaching is about real work-based teaching, as the student needs to see what you are talking about. We combine theory and practical in our teaching. In schools, teaching is about theory only.

The above views confirm that there is a difference in the learning outcomes at schools and at TVET colleges. The participants first stressed that in school there is a need to elucidate more than you should in a vocational class. Another difference that they cited was that vocational outcomes are practically inclined, while the schools' outcomes are theory-based. Lastly, TVET college students are expected to have a deeper knowledge and understanding regarding their subjects.

5.6 General teacher training vs vocational education training

The theme of general teacher training vs vocational training emerged and answered the second research question, which aimed to establish the relevance of a general teaching qualification to a vocational class. The sub-themes below detail the findings.

5.6.1 Understanding of vocational curriculum

A question was posed to participants regarding their general understanding about the vocational curriculum. It was clear that most of the participants had a profound understanding of the vocational curriculum, and indicated that it has a practical component and prepares its students for the workplace. Some even mentioned that the curriculum comprises 60% practical and 40% theory on delivery. This means a relevant pedagogy for the vocational curriculum should prepare TVET college lecturers to teach both theoretical and practical lessons.

Participant B of college A stated as follows:

The vocational outcome is meant to have skills and a practical element, but it never happened. For Report 191 we have 6 months to teach them theory, they pass and move to the next level. We try to be practical, but also the syllabus is limited, it is old. In normal circumstances they should be going to places to get practical. I think that is what makes it differ from school.

Participant F of college A said:

Vocational curriculum bridges the gap for students that did not make it in high school and prepares youth for employment.

Participant G of college A added:

Vocational curriculum allows students to penetrate the job market sooner. It also prepares them for self-employment.

In college B, participant F views vocational curriculum as:

> *A curriculum that gives students a broad spectrum followed by practical.*

In college C, participant B elaborated by saying:

Vocational curriculum states that 60% must be practical and 40% be theory. This is stated in the curriculum documents from DHET.

The above responses confirmed that participants are acquainted with the vocational curriculum. They indicated that the vocational curriculum has an advantage for its students, because it prepares them for the world of work and bridges the gap between the theoretical and practical components through vocational skills. These skills allow them to enter the world of work easily or to be self-employed. However, participant B raised a concern that Vocational Curriculum Report 191students are not exposed to practical skills while learning due to time constraints, as the training is only for six months. The sub-theme that links general teaching qualifications to the vocational curriculum is examined next.

5.6.2 The need for teacher education

The National Teacher Audit showed that a third of the teaching force was engaged in qualifications-driven, in-service education, and that in many instances – although they were taken into consideration for salary increases – such qualifications had little or no impact on classroom practice (DoE,2007:3). Based on the researcher's experience in the TVET college sector, the status remains unchanged as per the above statement. This is because of the absence of relevant qualifications for TVET lecturers. Most participants in this study confirmed that although they possess the traditional teaching qualifications, those are irrelevant in a vocational setting. They are irrelevant because the relevant pedagogy for TVET college lecturers is not covered in those qualifications. They cited that the knowledge they had gained in those teaching qualifications cannot to be put into practice in a vocational setting, as it does not relate to their subjects. One other reason they emphasised is that these teacher qualifications do not cater for most of the subjects that they teach, for example engineering subjects.

One participant indicated that she did not see any need to register for a PGCE, because she is managing to produce a 100% pass rate in her subjects without a teaching qualification. In addition, she believed that the traditional teaching

qualifications do not do any justice to preparing vocational lecturers for vocational classes. Other participants have different views, as indicated below.

In college B, participant A stated:

I am a registered NPDE-FET band student. I am not happy with this qualification, because its focus is on school curriculum, so it does not prepare much for a TVET college lecturer.

Participant G of college B responded as follows:

PGCE helped me to some extent, but I think it could do more. I also think that it is misleading that the PGCE-FET band is also for TVET college lecturers, because it does not cater for Report 191 lecturers. Yes, for NCV lecturers, they might be catered for, since their programme is equivalent to the FET band. There is a big difference between Report 191 and NCV; NCV is closer to schools, while Report 191 is closer to universities. That is where the problem starts; PGCE does not cater for post-matric teaching, although there is a demand for it.

This is what participant C of college A said:

I do not believe in these 1-year teacher qualifications, because I believe they do not fully equip lecturers, as most of them that have those qualifications rely more on textbooks.

It is evident that participants are not happy with these traditional teacher qualifications. They indicated that, they do not have confidence in them; 90% of the TVET college lecturers stressed that they registered for these qualifications because they did not have a choice.

What these participants above mentioned raises a concern, as 90% of lecturers who are employed in the TVET colleges have registered for these traditional teaching qualifications in the absence of a TVET lecturers' qualification. The PGCE-FET band is the most popular qualification, that almost all the TVET college lecturers opted for. However, the agreement is that it is somehow irrelevant to a TVET class.

5.7 Bridging the pedagogical gap

Booyens (2009) points out that to be seen as qualified to teach, besides the obvious need for formal teaching qualifications, one needs to have some form of specialist knowledge, relevant work experience, and a natural ability to be able to navigate students and make them understand and know that what they are learning. Teaching is therefore something that is learned, and for a good quality of teaching to take place, the teacher/lecturer needs to be in possession of the right qualifications to be able to do so (Booyens, 2009).

The 'right qualifications' is what will be discussed below. This discussion in important as it will give an indication, based on the findings, of who is regarded as a qualified TVET college lecturer and what the lecturers expect to be included in the lecturer qualifications.

5.7.1 Expectations of the general teaching qualifications

Participants who do not have a teaching qualification were asked if they intend to register for any teaching qualifications in the near future. Most of them had already registered at various institutions for the PGCE. They emphasised the fact that they had registered for this qualification because there were no other options available for them. This raises a concern regarding what can be done to bridge the knowledge and skills gap that lecturers have, as they possess a PGCE-FET rather than a PGCE-TVET.

The next question was about their expectations once they complete the PGCE qualification, and 75% of the participants indicated that they would love to see their pedagogical styles improved.

Participant D of college A explained:

I expect to gain a deeper understanding of the curriculum, drafting of lesson plans and implementing them in class.

In addition, participant E of college A stated:

I expect to be a better teacher. Currently, I am seeing the difference in my teaching. I have developed a passion, and I am able to accommodate the different learning needs of my students.

Participant G of college A responded as follows:

I would like to gain more knowledge of classroom management, inclusivity, and psychology. I have no problem with the content.

It is clear that lecturers expect their lesson planning, teaching, and classroom management skills to be improved once they complete the PGCE. Some participants enrolled, and a few more intend to enrol. They also expect this qualification to equip them in how to deal with inclusivity in their classes, as well as in educational psychology. Based on the views of participants who have graduated with a PGCE, the expectations of the above participants will not be entirely met by this qualification, as they cited many times that the qualification was designed for school teaching. From the above responses, it is evident that the PGCE is specifically designed for school teaching and cannot be expected to equip TVET college lecturers to teach post-matric classes. The content of the curriculum is school-based and prepares for general teaching in schools, rather than a vocational curriculum at a TVET college.

5.7.2 TVET college lecturer qualifications

Almost all of the participants in this study indicated that they were not aware of the new TVET college lecturer qualifications that were published in the *Government Gazette*. The main reason for this lack of information is that these qualifications are not available at any of the Eastern Cape universities, including the University of South Africa (UNISA), where most of the participants are currently registered. Since most participants are not aware of these qualifications, they were not able to comment on thiem, except for the few responses that appear below.

In college A, only participant D was able to respond, indicating that:

Yes, I am aware of them. My view about them is that it is a good thing for the TVET college lecturers, because these qualifications will speak to the needs.

In college B only participant H was aware of the new qualifications:

I am aware of them. They are very important as most of the lecturers that teach in TVET colleges do not have any educational background. Therefore, it is very important to have them as they will influence how you teach. They are good qualifications that one must have if they do not have any teacher qualifications.

In college C, none of the participants was aware of these qualifications. This confirms that there is no knowledge of these newly gazetted qualifications. In each of the other two colleges, only one out of the eight participants was aware of them. This raises a concern regarding how lecturer qualifications were approved without informing TVET college lecturers. This also raises the issue of communication of policies and gazettes to college staff. Most participants had some suggestions on what must be included in these lecturer qualifications, which are presented below.

5.7.3 Expectations of TVET college lecturer qualifications

It was incumbent upon the researcher to provide the participants with additional information about the new TVET lecturer qualifications. After the explanation, only three participants were not able to give suggestions on what these new qualifications should cover.

In college A, participant A recommended that:

These new qualifications should equip lecturers on how to deal with special needs students. They must also have Psychology as a subject.

This participant raised the important issue of students with special needs that her college has, and that lecturers do not understand them as they are not equipped with special needs education relevant to vocational education.

Participant G of college C added:

In these lecturer qualifications it will be good if they can include assessments that are relevant to vocational education, that also have an element of practical. They must also be able to bridge the gap between knowledge and application when delivering a lesson.

This participant mentioned issues of assessment in the vocational curriculum (theory and practical), which is not the same as in school education, and should be covered by these lecturer qualifications. One major difference mentioned was that it is not easy to design a practical assessment if one was never trained in it, unlike theory assessments. Another view was that they must equip TVET college lecturers on how to transfer their content knowledge to students using the relevant pedagogy.

Participant G of college A raised another issue:

They should help the TVET college lecturers by equipping them with skills on how to teach practical. They should assist them on how to deal with the kind of students the college has, like those that are not coping with their studies. They must also include vocational pedagogy, and they must relate to teaching in a vocational class.

College C's participant C stated:

The practical component relevant to the subject should be incorporated in these lecturer qualifications. This practical component must not only be there, but must have up-to-date and relevant information.

Participant B of college B added:

Personally, I do not understand why they are separated from the main teacher qualifications, maybe it is because I do not know much about them. Nonetheless, they should move away from academic and focus more on teaching practical. They should bring in new, better ways of teaching, besides the traditional ways.

Teaching the practical component of a subject was also viewed as a matter that should be addressed by these lecturer qualifications. TVET college lecturers are

expected to teach practical lessons, and the participants felt that it is not easy to teach practical lessons if one is not equipped with the relevant skills. New, better strategies of teaching and learning using technology are among other issues that the participants felt are requisite in the TVET lecturer qualifications. This implies that if the lecturer qualifications include the items suggested above, teaching in TVET colleges could become more stimulating to both students and lecturers, and the outcomes for the vocational curriculum could be achieved.

5.7.4 Gaps in the Post-Graduate Certificate of Education

There is controversy surrounding the relevance of general teaching qualifications. These participants revealed that there are some gaps in the qualification, and it is not preparing TVET college lecturers fully as it focuses on preparation for school teaching.

Participant G of college B shared her frustration with the current PGCE and gave some recommendations for lecturer qualifications:

We have got two programmes in Report 191, Business Studies and Engineering, and the demands in these programmes are different. Particularly for NCV, there is a need for teaching about basic classroom practice, i.e. basic pedagogy in the classroom within the content of their subject area. Because the PGCE as it stands now does not allow you to study Mechatronics, you have to study something else. Therefore, these Engineering lecturers were never taught what they need for their courses. A lot of them do Mathematics because that is the easiest option to take. It is easier for you if you are in the finance field, because there is Accounting, and there is Business Studies, so they relate to Financial Accounting, Entrepreneurship and Business Management. Again, it is very difficult for those that teach Human Resources and Public Management, there are no available options for them. So I would recommend that these new lecturer qualifications teach lecturers how to teach these specialised subjects better. That will assist most lecturers, as they are currently struggling to adapt the qualification that was designed for schools to a TVET. So the qualification is not as useful as it should be. The administration side of teaching in a TVET college should also be included.

Participant F of college C shared similar views:

I would propose that the subject pedagogies should be relevant to the subjects that we teach in TVET colleges. In general, in teacher qualifications we were taught subjects like English that do not fit in the technical side of our courses. It was difficult for some of us to come and implement what we have learned, as it was irrelevant to our vocational classes. It would therefore be better if these lecturer qualifications can cater for relevant pedagogies, e.g. pedagogy for electrical infrastructure.

The above responses emphasised the real issues that TVET college lecturers face in their daily teaching tasks. These participants revealed that the PGCE does not equip lecturers with vocational pedagogy for vocational subjects. Some of the pedagogies that TVET college lecturers learned in this qualification were not relevant to the vocational curriculum, and they did not practice them in their classes. Another issue that was raised was that TVET college lecturers are still struggling to implement general pedagogy in specialised subjects that they teach. As a result, there is a call for relevant pedagogies that will equip each TVET lecturer in each of their specialised subjects. This suggests that a TVET lecturer's qualifications should be focused on developing them with vocational pedagogy to assist with the teaching of specialised subjects.

5.7.5 Qualified TVET college lecturers

Participants provided diverse opinions on what qualifications a TVET college lecturer should possess to be regarded as professionally qualified to teach in a TVET college. Some felt that any qualification that made that lecturer a subject specialist was acceptable, for example, an ND in Farming Management. Others felt that relevant practical experience is key, in addition to the specialist academic qualification. Very few indicated that an NPDE is needed, while most mentioned that a relevant vocational teaching qualification is required over and above the specialist qualification.

Participant C of college A responded:

For a TVET college lecturer to be qualified, I recommend a degree not a diploma, because I believe that a diploma offers limited knowledge, and our students have an advanced knowledge because of technology.

Participant F of college B added that what was required was:

Degree and a bit of practical experience. Diploma does not carry much weight to enable teaching in a TVET college. Those should be the minimum requirements, and then further academic developments should kick in at a later stage, e.g. enrolment for a relevant lecturer qualification.

Participant G of college B felt that what was required were:

Degree and a teacher qualification in vocational teaching. A diploma can be considered only if the person has extensive practical experience. Otherwise, you cannot teach diploma students with a diploma qualification only, you need to have a more advanced knowledge than your students.

These participants strongly believed that a degree needs to be a recommended qualification for TVET college lecturers, for example, a BCom Accounting rather than a diploma such as an ND in Accounting. They feel that the content of a degree is more advanced than a diploma, giving TVET college lecturers more advanced knowledge than their students. They added that TVET college students have more advanced knowledge because of technology, and hence lecturers need to have advanced qualifications. Practical experience and a relevant teaching qualification are viewed as important, although they should complement the degree. These participants emphasised that the employment of TVET college graduates was something that should be stopped immediately, as they felt that they had very limited knowledge and could be successfully challenged by students. However, the researcher is of the view that some subjects are technical, for example, Computerised Financial Systems, and they can be delivered better by someone who has studied this subject at a TVET college. This does not mean that lecturers can be employed with an N6 certificate or National N Diploma only, but these qualifications should serve as a base in terms of subject content.

The participants below did not have any problem with a specialisation diploma as a qualification for TVET college lecturers, but they believed that it must be coupled with relevant practical experience or a lecturer qualification, or both.

According to participant G of college A:

A degree or diploma plus vocational lecturing experience, and if experienced, previous pass rate should be considered.

In college B, participant B stated that:

A qualified lecturer should have an academic qualification and a relevant vocational teaching qualification. The main reason is that you cannot teach Human Resources with a teacher qualification.

In college B, participant C responded as follows:

Qualified lecturer should have an academic qualification and practical experience in that particular field. Educational qualification should be an added advantage and should be required after the person has been employed.

In college C, participant D said:

They must have a specialist academic qualification. Relevant teacher qualification should be an added advantage. Teacher qualification alone, according to my experience, is not enough, there is always a content gap.

These participants' viewpoints differ slightly from those of the first three participants above. They recommend any academic qualification, whether a degree or a diploma, as long it allows the lecturers to specialise in vocational subjects. It was pointed out that a teaching qualification alone is not adequate, as a lecturer cannot teach most of the vocational subjects with it, because of the content knowledge gap. Relevant practical experience and a vocational lecturer qualification are cited to be additional requirements. Content knowledge is important, as suggested by the above participants, but it is also not adequate for teaching.

Participant C of college C was the only respondent with a completely unique opinion regarding what TVET college lecturers should have as a qualification in order to be regarded as competent. He believed that:

An artisan qualification plus relevant teacher qualification would be enough.

An ‘artisan qualification’ is an engineering qualification that is equivalent to a National N Diploma for TVET lecturing employment. The qualification is an N3 in Engineering qualification plus a trade test. In simple terms, it is a qualification that combines theory and practical. It is understandable why this participant recommends this qualification, because he teaches Engineering Studies, where workshops are held to demonstrate the latest machines and equipment. The artisan qualification equips lecturers with practical skills on how to use relevant machines and equipment to do work that is related to their qualifications. Again, a lecturer qualification, as the participant mentions, is also key, as it will have the vocational pedagogy that will assist the artisan to be able to teach.

5.8 Data collected using document analysis

Yin (2018) argues that besides interviews, various texts and documents are rich sources of data about people's actions, and may include letters, reports, minutes of meetings, policy documents, correspondence, memos, oral histories, and so on, so that the phenomenon studied is understood more clearly. This proposes that it is not necessary for the researcher to begin again with interviews but that they may use documents as a source of data, which is described as "document analysis" (Yin, 2018:2).

The following documents were identified, accessed, and analysed for each selected college: 2017 November analysis of results, subject file moderation reports, and lecturer qualifications policy. Findings from the analysis are presented below for each college.

5.8.1 College analysis of results

The college analysis of results was studied intently and read to get a sense of the results regarding the performance of lecturers who teach with or without pedagogy. The main reasons for analysing these documents were because the end result of teaching is the examination results, and they could also be used to verify the results from the interviews, where lecturers with teaching qualifications showed better results than those who do not have teaching qualifications. Because the participant's identity had to be protected, it was not possible to obtain an individual lecturer's analysis of results. The analysis for both programmes, NCV and Report 191, was scrutinised by level, and the foci are presented below for each college.

5.8.1.1 College A

For the November 2017 results for NCV, a total of 17 subjects were written at this college campus, and the results are presented in Table 5.

Table 5: Analysis – College A: NCV

Level (L)	Total enrolled	Total wrote	Total pass	Pass %
2	2095	1610	1309	81.3%
3	1450	1300	1018	78.3%
4	1197	1131	890	78.7%

It may be noticed at this college that there is a higher number of students enrolled in Level 2 than in Level 4. There are about 485 students who did not write their examinations in L2, compared to 150 in L3 and 66 in L4. The pass rate was higher in L2 than in L3 and L4. The following table presents the analysis for the same college, but for Report 191. There were 26 subjects written in 2017.

Table 6: College A Analysis – Report 191

Level	Total enrolled	Total wrote	Total pass	Pass %
N4	1772	1549	1320	85.2%
N5	1710	1619	1127	69.6%
N6	1131	1060	765	72.2%

For this college, N4 and N5 enrolments are high, with a difference of only 62 students, while N6 has a very low enrolment. For N4, 223 students did not write their examinations, while 492 N5 students did not write their examinations, and 295 students in N6 also did not sit for their examinations. Unlike with the NCV, where more L2 students did not write, for Report 191 most students who did not write were In N5.

5.8.1.2 College B

Tables 7 and 8 present the data on analysis of the results for 2017 for college B. For the NCV, 37 subjects were written on this campus, while 26 subjects were written for Report 191.

Table 7: College B analysis – NCV

Level	Total enrolled	Total wrote	Total pass	Pass %
2	3690	3061	2770	90.5%
3	3010	2743	2453	89.4%
4	2597	2428	2076	85.5%

The enrolment numbers at this college are very high in general compared to college A. L2 has a much higher number than the other levels. The variance in total enrolment from L2 is around 600 in L3 and around 500 in L4. There was also a high number of students who did not write examinations in L2 (around 621),

while there was a very low number in L3 (290), and 352 in L4. The pass rate shows a decrease from L2 to L4, with 90.5% in L2 and 85.5% in L4.

Table 8: College B Analysis – Report 191

Level	Total enrolled	Total wrote	Total pass	Pass %
N4	650	596	451	75.7%
N5	1412	1346	1025	76.2%
N6	1044	982	773	78.7%

In this college, a very low enrolment number was recorded in N4. N5 had 762 students more than N4, while N6 recorded 368 fewer students than N5. In N4, 54 students did not sit for their examinations, while 66 students in N5 and N6 also did not sit for their examinations. There is a slight increase in the pass rate in N6 compared to other levels, with 3% more than for N4, and 2.5% more than for N5.

5.8.1.3 College C

Two sets of results were analysed, as in the other two colleges. In this college, 19 NCV subjects were written, while only 5 subjects were written for Report 191. The analysed data is presented in Tables 9 and 10.

Table 9: College C analysis – NCV

Level (L)	Total enrolled	Total wrote	Total pass	Pass %
2	1977	1143	610	53.3%
3	860	689	498	72.8%
4	743	652	488	74.8%

This college also recorded a high number of enrolments in L2, which decreased by 1117 in L3, and by 1234 in L4. In L2, 834 students did not write their examinations, while 171 students in L3 and 91 students in L4 did not do so. The pass rate increased tremendously between L2 and L4 – by 21.5%.

Table 10: College C analysis – Report 191

Level	Total enrolled	Total wrote	Total pass	Pass %
N4	650	596	451	75.7%
N5	1412	1346	1025	76.2%
N6	1044	982	773	78.7%

For the Report 191 programme, N5 had a high number of total enrolments compared to the other levels. Only 54 students did not write their examinations in N4, 66 in N5 and 62 in N6. There was not much variance in the pass rate from N4 to N6.

5.8.2 College moderation reports

These reports were collected from each college for the purpose of analysis. The reports gave a picture of the competence levels of lecturers in designing lesson plans, designing of assessments and their instruments, and remedial teaching. For each college, subject files are moderated in each quarter to determine the amount of work that has already been covered, compared with the original lecturer plan and college calendar. The quality of assessments and their compliance to internal continuous assessment (ICASS) guidelines were verified, as were the accurate recording of assessment marks, and compliance to the college teaching and learning plans. Subject files contain the evidence of what is happening in class, including lesson planning and execution. This exercise has to be completed by every college, every term before the external moderation begins.

For ethical reasons, the researcher requested and received external moderation reports from each college. External reports were used because they gave an authentic picture of the lecturers' work. The reports were studied more than once, and the analyses are presented below for each college.

5.8.2.1 College A

This is a college that recorded almost half of the lecturers with no teacher qualification – about 40% to be specific. In the report, the overall compliance score for September 2017 moderation was between 75% and 89%, Fairly Compliant, with recommendations that can be implemented within a short space of time.

These were the challenges that were noted:

- No evidence of electronic capturing of marks
- No evidence of verification of marks
- No evidence of the conduct of the assessment review
- Declaration of the authenticity not included
- Consolidated record of assessment not signed as evidence of verification.
- No evidence of a lesson review
- No evidence of supporting tasks
- No evidence of an assessment review.

5.8.2.2 College B

The available moderation report for this college was dated September 2017. The average compliance score was between 75% and 89%, which is Fairly Compliant, with the following challenges noted:

- Syllabus not included
- No additional supporting tasks
- No evidence of lesson review
- No evidence of subject/programme meetings
- Student assessment schedule not included
- No evidence of post-moderation feedback

- Subject record sheet not included
- No evidence of correct weightings
- No evidence of electronic capturing of marks.

5.8.2.3 College C

In this college, the report that was provided was dated August 2017 and the compliance score was between 55% and 74%, meaning that it is Partially Compliant, with recommendations that can be implemented within a moderate time-frame. These were some of the challenges that were noted:

- No review of lessons
- Student assessment schedule not available
- No analysis grids
- No evidence of post-moderation and no evidence of feedback
- No evidence of correct weighting of marks
- No evidence of electronic capturing of marks
- No evidence of verification of marks
- No evidence of reports presented to the Academic Board.

As can be seen, there were common challenges across the colleges. In order to address these common challenges, as part of their everyday tasks lecturers should have reviewed their lessons in order to reflect and establish if they went well or not. Pre-moderation and post-moderation feedback on assessment tasks by internal moderators is also very important, as it strengthens the quality of assessments. Assessment marks must be captured on a college management information system by a data capturer, and verification of marks by the lecturer is required to validate the captured marks against the manually recorded marks. Also, as part of bringing quality to the assessment process, manually recorded marks need to be verified against the scripts as part of the post-moderation process. Syllabus, assessment schedules, subject year plans, lesson plans, and ICASS guidelines are the instruments that should be found in any lecturer's subject file. These instruments should not only be present, but they should be working documents – meaning that there must be evidence that they were used.

Teaching qualifications are expected to equip lecturers on administration beyond classroom teaching. However, all three colleges had common challenges in terms of administration, and it is evident that the teacher qualifications might not have equipped the TVET college lecturers well. One of the challenges might be that the preparation for a school class is not the same as preparation for a vocational class due to the nature of the learning outcomes (Dotse, 2019:7). Thus, class administration and compiling the subject file are not identical. This was evident from the challenges experienced by the TVET colleges – where these challenges persisted even at a college where most lecturers have a teaching qualification (college B and C).

5.8.3 Policy on professional qualifications for TVET college lecturers

The policy aims to contribute to strengthening the quality of teaching and learning across the entire TVET sector. Most lecturers' qualifications are not appropriate for teaching in TVET colleges, as the schools' qualifications have been used as 'one size fits all' in the absence of TVET college lecturer qualifications. Appropriately qualified school teachers who want to pursue a TVET lecturing career could apply.

In contrast, lecturers who have obtained formerly approved and recognised qualifications, or who are in the process of completing such qualifications, will continue to receive full recognition for such qualifications in accordance with the policy that regulates such recognition. This implies that the policy acknowledges the competence gaps in general teaching qualifications, which lecturer prospects with school qualifications will first need to address.

TVET college lecturers who hold the general teaching qualifications and are already in the system will continue to receive recognition, even though they have competence gaps. These new lecturer qualifications focus on the appropriate knowledge mix, which is integrated and applied knowledge, disciplinary learning, pedagogical learning, practical learning, situational learning, and fundamental learning. These types of learning cover the subjects and methods of teaching

required by TVET college lecturers, as well as their relevance and application in the real world.

5.9 Conclusion

This chapter presented the different views of the participants regarding the questions posed in this study. It began with biographical information on the participants, and then the data was presented according to the main themes and sub-themes which emerged. Three documents were analysed, and the document analysis was presented towards the end of the chapter.

The next chapter will present and discuss these findings in detail and link them to the literature.

CHAPTER 6 FINDINGS AND DISCUSSION

6.1 Introduction

In the previous chapter the data collected using interviews and document analysis were presented with a discussion of each theme and sub-theme that emerged. This chapter discusses the findings, which are supported by the literature and Shuman's theory of PCK, which was employed in this study. The support of the empirical work by the literature enabled the researcher to provide a theory that is grounded in the individual circumstances of TVET colllecturers who teach with or without pedagogy. The main headings relate to the main questions that were investigated in this study.

6.2 Pedagogy helps to deliver vocational classes

Pedagogy as a science and art of teaching is what all those involved in teaching should possess. The sub-sections below provide discussions based on the findings in relation to the first research question.

6.2.1 Understanding the concept of pedagogy

This study confirmed that most lecturers who teach at TVET colleges, both those with teaching qualifications and those without, did not understand the concept of pedagogy. The main reason for this could be that pedagogy is not an item in their lesson plan templates and assessments. However, due to the nature of their profession, pedagogy should be an aspect of their everyday vocabulary. An understanding of pedagogy is very important because teaching begins with a teachers' understanding of what is to be learned (content) and then how it is to be taught (pedagogy). Application is possible when theory and abstract terms are understood first; consequently, the understanding of pedagogy is essential because it will strengthen the preparation for lesson delivery. Loo (2018:25) argues that

> Pedagogical knowledge goes beyond a teacher's beliefs and practices and is viewed as a dynamic interaction between subject knowledge and school knowledge where teaching strategies

such as demonstrations and analogies are used in a classroom together with supporting teaching materials.

A deep understanding of the importance of pedagogy and its relevance to the teaching environment is very important, and the implications of not using pedagogy could be detrimental to the teaching environment.

The reason that the participants were not familiar with the term is that it is not often used in their daily teaching lives in TVET colleges. The teaching qualifications they studied also did not emphasis the term, as subject didactic was normally used instead of pedagogy. The study confirmed that TVET college lecturers are aware of pedagogy when it is described as 'teaching methods'; in this study, the participants defined pedagogy as a teaching process, teaching methods and the methods applied to transfer knowledge and skills. These definitions revealed by this study concur with those given by the literature, where pedagogy is defined as the science, art, and craft of teaching (Lucas, 2015:7).

It fundamentally includes the decisions that are taken in the creation of the broader learning culture in which teaching takes place and the values that inform all interactions. It is critically shaped by the decisions that are taken by teachers, both high-level strategies and day-to-day 'in the moment' ones, and the values that inform all interactions with students (Kelly, 2015). Pedagogy is necessarily concerned with the practices and processes by which knowledge is produced, skills are developed, and habits of mind are cultivated (Lucas et al., 2012; Wheelahan, 2010; Banks et al., 1999).

It was evident that the lecturers use diverse pedagogy in their classes, although they are not aware that the different teaching methods that they use are referred to as 'pedagogy'. Some participants indicated that they use group work, telling methods, and question and answer methods in their classes. However, the correct implementation of pedagogy will not be possible if lecturers do not understand it. According to Abdullah et al. (2019:15), having a strong understanding of pedagogy allows lecturers to have a theoretical foundation from their teaching qualifications and to apply their knowledge in their daily teaching, thereby improving teaching and learning.

In addition, participants claimed that the PGCE, a qualification that most of them had, had a subject called didactics, and they were not sure if it was the same thing as pedagogy. Kansanen and Meri (2015:27) pointed out that "subject didactics is seen as a last solid link in a ball where academic subjects are one imaginable starting-point and where the school subjects have their own spot". The departments in the universities that provide competence in particular subjects are also responsible for preparing teacher education students at their institutions with the essential knowledge and skills for their profession. Generally, the didactic aspects are linked to the subject after some studies in the subject and in training (Rudman & Meiring, 2018:5).

This above confirms that subject didactics is not the same as teaching pedagogy. Pedagogy refers to the art of teaching in general, whereas subject didactics is linked to a specific subject and knowing how to teach that specific subject. However, most participants thought that pedagogy was subject didactics.

6.2.2 Understanding of vocational curriculum

According to Mortaki (2012:9) programmes of vocational training are divided into those that are mostly theoretical and those of practical orientation. In the application of theoretical knowledge emphasis is placed on action and not on its acquirement. The theoretical knowledge delivered is therefore aimed at the acquisition of technical skills and the ability to implement them in certain professions. For that reason, the learning procedure is based on methods such as observation, imitation and self-correction, in addition to the theory provided by textbooks.

As indicated by Mortaki (2012), this study also found that the vocational curriculum is a combination of theory and practice, with the practical aspect having more weight than the theory. Consequently, teaching qualifications for TVET college lecturers should be shaped in such a way that they are equipped to deliver both the theory and the practical component. The practical component of the curriculum is key, as it gives students a chance to put the theory they have learned into practice. The teaching of practical skills, however, requires lecturers

to have specialised, up-to-date industry content knowledge, as well as relevant pedagogical knowledge. Lucas and Claxton (2016:72) are of the opinion that:

> Learning by attempting to solve real-world problems can be a highly effective means of developing expertise. Putting rules into practice by applying them in real-life scenarios allow the learner to gain valuable experience, to the point where over time, he is able to treat rules as 'guidelines', working around them if a 'better' result will ensue from an alternative action.

The vocational curriculum is understood to have a dual system; its dualism is based on the fact that it not only prepares its learners for work, but also for further studies. For the NCV, Level 4 is equivalent to Grade 12, and students with it may enrol to further their studies at any HEI if they meet the minimum admission requirements. However, the major advantage is that vocational learners have more advanced knowledge from the courses they have studied than Grade 12 learners. For example, an NCV Level 4 learner who has studied Information Technology could proceed to a university for further studies in the same subject. The chances of that learner graduating within the allocated time are very high, because he already has the foundation and was exposed to relevant real-world experience during his studies.

6.2.3 General pedagogy vs vocational pedagogy

The participants showed mixed feelings when they shared their opinions regarding whether there is any difference or similarity between general pedagogy and vocational pedagogy. A few participants thought that teaching in a school was comparable to teaching in a TVET college, and that the pedagogy should be the same. They considered vocational pedagogy to be limited to vocational teaching rather than general teaching, because it will only focus on vocational education. The subjects that are offered at schools, where general pedagogy is relevant, are not the same as those offered at TVET colleges. Therefore, there is a difference between pedagogy and vocational pedagogy. In addition, since the learning outcomes in school education and vocational education are not identical, the pedagogy used in schools profoundly differs from that used in TVET colleges, and the curricula of schools are completely different from those of TVET colleges. Although there is consensus regarding the opinion that vocational pedagogy could be an expansion of general pedagogy (ETUCE, 2008:9), general pedagogy

equips teachers and lecturers to teach, but there are some areas that are not covered, for example, teaching in a workshop. For TVET college lecturers vocational pedagogy is necessary to equip them in those areas that differ from school teaching. As the literature points out, "the purpose of an academic curriculum is to induct students into a field of knowledge while the purpose of a vocational curriculum is to induct students into a field of practice" (Hobley, 2015:15; DHET, 2009:3; Harkin, 2012:8).

This study confirmed – as many participants indicated – that there are differences between vocational pedagogy and general pedagogy. Table 11 presents the differences.

Table 11: Differences between vocational pedagogy and general pedagogy

Vocational pedagogy	**General pedagogy**
Deals with the content of vocational curriculum teaching	Deals with general teaching
Equips lecturers to prepare students for workplaces	Prepares students for further studies
Practically inclined	Theory-based
Prepares lecturers to teach in a vocational class	Prepares teachers to teach in a normal school class
Equips lecturers to teach in a dual system of vocational curriculum	Prepares teachers to teach in an academic formal class
Trains TVET college lecturers on different teaching methods suitable for a vocational skills training	Teaches on the general ways of how to teach

Table 11 demonstrates that vocational pedagogy equips lecturers with the different teaching methods that suit their daily teaching in a vocational training class. In contrast, general pedagogies prepare teachers to teach theory in a general classroom. This suggests that TVET college lecturers need to have a vocational pedagogy to assist them with their daily teaching. It is also confirmed that vocational pedagogy is relevant to them, as they teach both theory and

practical lessons. Maoyuan (2007:11) confirmed that pedagogy merely studies issues of general school education and that is disadvantageous in improving the role of vocational education. Not only is vocational education more complex than school education in its linkages to the economy, but it is built on a foundation of school education, and its students are at different stages of physical, mental, and social development from school learners. Table 12 presents the differences between the two pedagogies.

Table 12: Differences between vocational and subject-specific didactics

Vocational didactic	**Subject-specific didactic**
Mostly guided by constructivist learning theory	Mostly related to cognitive learning theory
Teaching and learning must cross a wide range of scientific knowledge areas	Guided by university knowledge fields; there is a desire to keep subjects separate
Vocational education inherits its didactic from working life, often with blurred knowledge areas	Subjects are based on well-framed disciplines
Vocational didactic is action-oriented and what is learned is not separated from its usefulness	Focus on theory and the quality of knowledge
There is generally a problem to solve, which requires both theoretical and practical skills	Based on the didactic question of 'how?', which is answered by academia
There is often tacit and informal learning included in vocational didactic	The knowledge can often be communicated verbally or in written form
Occupations are framed by various rules and regulations, which must be integrated in training	Subject-specific didactics do not have the same 'embeddedness'
Specific demands from labour market stakeholders carry considerable weight, as does working context	Demands from stakeholders leave greater freedom for interpretation

Source: Cedefop, 2015:23.

The differences stated by the literature and those stated by the participants are the same. The following section discusses research question two as stated in chapter one.

6.3 Relevance of general pedagogies to a vocational class

The first theme has been discussed, which represents the responses to the first question of this study. This section presents discussions on the relevance of general pedagogies to a vocational class.

6.3.1 Importance of pedagogy in a vocational class

It was evident from the study that general pedagogy somehow assists TVET college lecturers in delivering their lessons, although they cannot depend on it alone. TVET college lecturers who teach NCV fundamental subjects are those who benefit most from general pedagogy. Their curriculum and the level of their students are equivalent to that of the secondary school curriculum; for example, Mathematics, Mathematical Literacy, and the English curriculum are equivalent. Furthermore, NCV Levels 2 to 4 are equivalent to Grades 10–12, and the school's pedagogy used in these subjects is almost the same. The main difference is in Life Orientation, as according to this study the curriculum in TVET colleges is divided into two: theory and ICT, which means that general pedagogy is no longer relevant to this subject in a vocational class.

However, there are those lecturers who teach vocational subjects, as the participants indicated that pedagogy assisted them in their vocational classes, which begs the question, 'Is general pedagogy relevant to vocational classes?'. The differences between these pedagogies, as stated above, clearly indicate that they each serve different purposes, so they cannot be directly linked to each other. Teaching in a vocational class requires lecturers to be able to develop and deliver practical lessons, as required by the curriculum, yet general pedagogy does not cater for any action-orientated lessons. As a result, general pedagogy alone is not adequate for TVET college lecturers.

6.3.2 Anticipation of the Post-Graduate Certificate in Education

Anyone who enrols in any qualification does so based on the need that they wish to meet, and has expectations of what the qualification must address. TVET college lecturers who are enrolled for a PGCE or NPDE and those who are still planning to enrol highlighted their expectations once they graduate. The study found that TVET college lecturers expected their teaching to improve. They hoped that these qualifications would address their needs and equip them to handle issues of inclusivity as well as educational psychology. However, as discussed earlier in this chapter, these are merely general teaching qualifications with very limited context that is relevant to a vocational curriculum.

As a result, although TVET college lecturers chose these qualifications, their expectations will not be entirely met. To reiterate, a report by DoE (2007:7) confirmed that a third of the teaching force in TVET colleges in 1995 was engaged in a qualifications-driven, in-service education and that, in many instances, although they received considerable salary increases, such qualifications had little or no impact on classroom practice. It is evident that there is a need for lecturer qualifications, and their benefit to TVET college lecturers is discussed below.

6.3.3 Role of teacher training in vocational education

It is evident that there is not much of a relationship between general teaching qualifications and vocational education. This is the result of there being a lack of the vocational teaching qualifications that TVET college lecturers should possess. It is worth noting that before 2009 there was only one DoE, that also employed TVET college lecturers. This resulted in TVET college lecturers being treated as general educators, and they were not given any special attention regarding their relevant professional development. The DoE introduced an NPDE for school teachers who were under- or not qualified, and the PGCE was also introduced for those school teachers who were not professionally qualified. However, nothing was developed or introduced for TVET college lecturers, although there was a cohort of lecturers in the TVET system. This resulted in them opting for the

general teaching qualifications, which do not address the needs of vocational classes.

This study found that these qualifications are general and do not equip lecturers to deliver lessons in their specific technical subjects. An example was made of Engineering lecturers, who find it very difficult to put what they have learned in these teacher qualifications into practice. To be specific, the PGCE has FET band specialisation that equips teachers to teach in Grades 10–12. The TVET college NCV programme is equivalent to Grades 10–12 of schools, but teaching with these qualifications in each of these programmes, as found by this study, is of benefit, though the curriculum and subject learning outcomes differ.

Grollmann (2015:3) and Chetram (2017:17) concur with one another that there is a huge diversity of models of teacher education, teaching profiles and recruitment patterns in TVET globally. More so than teaching in school education, teaching in vocational education has often failed to be acknowledged, despite its significance, ubiquity and assumed contribution to the welfare, maintenance, and progress of society. Alternative patterns of teacher recruitment, education and training still prevail in many countries and are seen as an inferior solution to standard patterns of teacher education. All in all, this diversity in content and forms means that vocational teacher education structures are still a long way from being part of a well-established and accepted international academic discourse.

Since 2007 there have been some developments in the TVET curriculum, as the NCV was introduced. The main aim of the curriculum was to equip learners with up-to-date skills that are industry-driven, to curb youth unemployment in the country. This change also affected TVET college lecturers, as most had old qualifications in terms of content knowledge and pedagogical knowledge. All that the DoE did was to take TVET college lecturers to a week-long workshop to orientate and train them on the content and pedagogical expectations of the NCV. This was a chance that the DoE had to introduce relevant teaching qualifications for TVET college lecturers, but that did not happen.

Grollmann (2015:4) points out that the mission of TVET has changed significantly. Learning and instruction are organised, with innovative approaches to influencing

institutional roles and governance within TVET lecturers and colleges, and up-to-date standards of collaboration between a variety of staff profiles involved in TVET. This requires holistic knowledge, competences, and commitment on the part of vocational teachers to participate in these processes as well-equipped stakeholders. Particular knowledge is requisite in a number of situations, and is closely aligned to technological developments and types of information related to particular manufacturing, construction assembly procedures and businesses in relevant domains of the workplace.

This particular knowledge that lecturers need to have was evident in the moderation reports that were reviewed in Chapter 5. The documents revealed that some lecturers across the three colleges did not provide evidence to show that lesson plan reviews were done after each lesson. Lesson plan review is done at the end of each lesson to check if the lesson was well received or not, so that the lecturer can repeat it or continue to the next lesson the next day. Across the colleges, the reports show that there was very little to no compliance with assessment processes. The assessment processes are detailed step-by-step in an instruction document called the Internal Continuous Assessment Guideline (ICASS), and are updated each year. Internal assessments are a starting point for a student's progress in classroom learning, and they end up with a final external assessment for each level (N1–N6 and L2–L4). All of these processes require lecturers to be competent, and relevant teaching qualifications can equip them in this regard.

6.3.4 Performance of lecturers

This study confirmed that lecturers who have teacher qualifications perform better than those who do not. This endorses the earlier argument that general pedagogy does help TVET college lecturers in the delivery of their lectures/lessons. Regarding the issue of content knowledge, content alone is not sufficient in the teaching environment, but PCK is necessary. PCK, according to Shulman (1986:9), is a particular category of knowledge that goes beyond understanding of the subject matter to the dimension of subject matter knowledge for teaching.

According to the results of this study, for lecturers who do not have TVET pedagogy, as presented in the previous chapter, content knowledge clearly only allows them to be specialists in their fields of study. It gives them in-depth knowledge, which gives them more advanced knowledge of content than their students. However, knowing the content alone makes it difficult to be able to transfer it to students in an educational environment using relevant methods. Lucas et al. (2012:12) confirmed that:

> Lecturers who teach without pedagogy might not have good results based on the way they teach. They referred to them as lecturers who talk too much, suppressing learners' contributions. They are unimaginative with the content that is delivered, and their questioning is rarely sufficient. Their learners remain unchallenged and their own expectations of what they might achieve are not sufficiently extended. In their classes teaching is dull and uninspiring, and as a result learners find it hard to maintain their interest in learning.

Teaching in these classes may not be learner-centred, and they do not make learning interesting, which is why their results could be lower than those of the lecturers who have knowledge of vocational pedagogy. The lecturers without pedagogy confirmed that they were not satisfied with their results, while those TVET college lecturers who have pedagogy over and above the content performed better. These lecturers are able to use the content knowledge with the pedagogy that they possess to create meaningful teaching in their classes. This meaningful teaching results in a student-centred approach that allows students to participate in classes. Illeris (2007:18) concurs that teaching and learning in these classes is interesting because lecturers have passion, enthusiasm and subject knowledge, and learners are inspired:

> Their classes are well planned, activities are dynamic and demanding, and learning is independent and active. Learning tasks are differentiated depending upon the needs, abilities, and interests of learners. This is informed by good assessment. Their assessment is regular and formative, and individual and group reflections are routine.

It is obvious that these lecturers employ a variety of teaching methods based on the learning needs of their learners. They achieve the best results because their learners are inspired by the way they teach and the fact that their teaching is not boring. These lecturers were satisfied with their results. Chapter 5 provides an analysis of the results for each college, and the following discussion presents the findings.

It is worth noting from the analysis of results that in these three TVET colleges there was a higher enrolment number at entry levels than at exit levels. It was also evident that at entry level specifically, a high number of students did not write their examinations. Upon further interrogation, the TVET colleges confirmed that most of these students had dropped out around June. Many reasons for this were cited by the colleges, one being that some students register for NCV as having passed Grade 11, although they know that they qualify for the Grade 12 supplementary examination, and after sitting the supplementary examinations they disappear. Some drop out after receiving their bursaries, while a large number do so because they find the programme too advanced for their level and that some of their lecturers were not able to attend to their individual learning challenges. However, there are many more reasons for the attrition, such as psychological and social problems, among others.

Students at TVET colleges have to comply with the attendance policy and year mark policy before they are allowed to sit for their examinations. The attendance policy states that a student must attend all classes at 100%; however, if the student's overall attendance per subject is below 80%, he/she will not be allowed to write the examinations for that specific subject. The year-mark instruction as part of the ICASS guidelines states that no student will be allowed to sit for examinations if he or she has a year-mark below 40% for Report 191, 50% for NCV vocational subjects, 40% for NCV English and Life Orientation, and 30% for Mathematics and Mathematical Literacy. All these policies and instructions need competent lecturers who are capable of administering them correctly, as per their guidelines. As part of teacher training, the administration of class attendance registers is emphasised during teaching practice and is central to implementation of the attendance policy. These policies could be implemented by lecturers who do not have teaching qualifications, and the impact of their one-day in-house training cannot be compared with having a teacher training qualification.

The lack of relevant teacher training might also be the cause of the high dropout rate for NCV students. As stated earlier in this study, lecturers were previously drawn from industry, with only content and practical knowledge. That type of knowledge could still partially work for Report 191 programmes, but currently the

NCV cohort requires a trained lecturer who is not only a content specialist but also has practical and pedagogical knowledge. NCV students are drawn from the senior phase (Grade 9 pass), and their ages range from 15 to 19 years; therefore, the teaching in Report 191 and in NCV cannot be the same. Thus, it may be argued that if all lecturers possessed content and pedagogical knowledge, the level of classroom teaching could be improved. The reason this study recommends it for all lecturers, not just NCV lecturers, is that most lecturers offer their services in both programmes. Pedagogy enhances the teaching skills of all those who deliver lessons, whether NCV or Report 191 (Bhowmik et al., 2013:8). When training student teachers, relevant teacher training extends beyond preparation for actual class teaching to include administration, pastoral care, inclusivity, and many other areas.

In colleges A and B, all of the Information Technology subjects showed poor results, with an average pass for all levels between a minimum of 22% and a maximum of 60%. In college C Information Technology was not offered, but subjects like animal production obtained an average of 32% at all levels, while Applied Engineering Technology obtained 26%, and many other engineering subjects were below an average of 60%. In all three colleges it was evident that Mathematics was not producing good results. This evidence proves that TVET college subjects are very specialised, and the lecturers who offer them therefore need specialised knowledge. As a lecturer, knowing the subject content alone is inadequate, because they will not be able to tailor the lesson to suit and accommodate every learner. This specialised skill could be sharpened by a relevant teaching qualification, which entails relevant pedagogical knowledge (Shulman, 1986). The results in these subjects also confirm that teaching cannot be regarded as ‘just teaching’, and must be guided by specialised teaching knowledge relevant to the type of teaching one is doing.

Analysis of the results also confirms what some participants indicated earlier: that general pedagogy is not preparing TVET college lecturers sufficiently for teaching vocational subjects. At a college where many lecturers are regarded as professionally qualified, results in some subjects are not good, at odds with what the participants with teaching qualifications highlighted earlier about their good

results and that their teacher qualifications prepared them for vocational classes. It is imperative to note that the NCV L2 results were better than for L4. Although L2 is an external examination, marking is done internally, with lecturers marking their own students. Issues of quality marking and bias are of concern if the externally marked students do not show good results. These findings also support an earlier argument that teaching is more than just lesson delivery and that general teaching qualifications are insufficient for TVET teaching.

The next section details discussion of the findings regarding research question number three.

6.4 School curriculum vs vocational curriculum

Two themes have been discussed so far. The following subsections provide a brief discussion on the third research question of the study, which aims to find the link between school and vocational outcomes.

6.4.1 Learning outcomes of school subjects vs vocational subjects

Learning outcomes are statements that describe significant and essential learning that learners must achieve and can reliably be demonstrated at the end of a course or programme. Simply put, learning outcomes identify what the learner will know and be able to do by the end of a course or programme.

Participants in this study confirmed that the learning outcomes of school subjects and vocational subjects are not identical. They mentioned many times that the vocational curriculum states that 40% is theory-based while 60% is practical-based. Consequently, the vocational curriculum's outcomes focus on practical skills rather than theory alone, while the school curriculum is about theory. An example was made of Life Orientation in this study, where it was evident that although both schools and TVET colleges offer the subject, their learning outcomes differ. In schools, the learning outcomes are about life skills, while in a TVET college, the outcomes are a combination of life skills (theory) and ICT (practical). The above information on TVET outcomes corroborates the findings that the vocational curriculum is practically inclined, because at present computer

skills are among the critical skills needed in one's life. Lucas and Claxton (2016:45) confirm that:

> Traditionally, vocational education outcomes are framed in terms of skills or competencies relating to vocational domains, with recently a greater interest in basic skills (in literacy, numeracy and information technology, for example), and also in what are increasingly referred to as 21st century or wider skills.

If the learning outcomes of school subjects differ from those of TVET colleges, as revealed in the study, pedagogies that teachers and lecturers may employ to teach have to differ. Cedefop (2015:12) confirms that teaching methods in the school-based part of VET programmes employ a traditional method, compared to practical-oriented methods in the work environment. He suggests that alternatives in teaching practice between diverse learning settings and sites are the result of traditions related to a particular occupation or profession, as well as differences in the aim of regulation in the school-based and work-based aspects of education. However, the teaching site may assist or hamper more advanced methods, which are also reliant on diverse curricula and occupations.

6.4.2 Delivery of learning outcomes: School vs TVET college

The study revealed that there is no relationship between the delivery of learning outcomes between schools and TVET colleges. Table 13 presents these differences.

Table 13: Differences between school and TVET delivery of learning outcomes

TVET college delivery	School delivery
Element of teaching practical	Pure theory is taught
Teaching is of higher level	Teaching is foundational
Learners are independent and responsible for their studies	Learners are dependent on their teachers to give them knowledge
Learners are prepared to apply what they have studied to workplaces	Learners are prepared for further learning
Vocational curriculum caters for mature learners	General curriculum caters for learners of up to 18 years

The main difference that appears in Table 13 is that the vocational curriculum combines theory and a practical component. Theory learning is where learners learn the concepts and knowledge so that they will subsequently be able to apply them in practice. Teaching in a vocational class is influenced by real-world expectations. Cedefop (2015) concurs with the differences stated above when they highlight the differences between schools and TVET college teaching (Table 14).

Table 14: Differences between schools and TVET college teaching according to literature

Vocational curriculum inherits its pedagogy from work life	**Teaching is mostly related to cognitive learning theory**
Teaching and learning must cross a wide range of scientific knowledge areas	It is guided by the university knowledge fields, and there is a desire to keep subjects separate
Teaching is action orientated and what is learned is not separated from its usefulness	Subjects are based on well-framed disciplines
There is generally a problem to solve, which requires both theoretical and practical skills	It focuses on theory and the quality of knowledge
Specific demands from labour market stakeholders carry considerable weight, as does working context	Demands from stakeholders leave greater freedom for interpretation

Adapted from Cedefop, 2015:23.

This study and the literature revealed that the two sets of curricula have different expectations, and both are influenced by different situations. Therefore, teaching and the teaching pedagogies used cannot be the same. Moody and Wheelahan (2012:324) confirm that the academic curriculum differs from the vocational curriculum, since the role of the vocational teachers is greater as they mediate the social context of vocational education as opposed to the school and higher education. The next question briefly gives a discussion to research question four which is the last question in this study.

6.5 Bridging the pedagogical gap

The DHET has approved some TVET college lecturers that will aim to produce a cohort of professional and competent lecturers with the relevant pedagogy. The sub-sections below present a discussion of findings as per the last question of this study.

6.5.1 TVET college lecturer qualifications

The study found a major concern: that TVET college lecturers were not aware of the TVET college lecturer qualifications. This is despite the call for public comment on the draft policy for these qualifications that was made on 21 August 2012. Regarding their work experience, most of the participants were working at a TVET college in 2012. If they never read the draft and did not submit their comments, it may be inferred that they did not have a say on these qualifications before they were gazetted. One wonders what other critical information they are not aware of. The VEOP was mentioned many times in this study, as participants thought that it was a qualification. A lack of information was identified as a major concern in this study, as it is clear that the VEOP was never explained to lecturers in the correct manner.

Out of 24 participants, only two acknowledged an understanding of the TVET lecturer qualifications. They welcomed them, indicating that their teaching skills would be sharpened as the skills would be designed to address teaching in a vocational setting. Looking at the main purpose of these lecturers' qualifications, as stated in the policy as analysed in Chapter 5, and what lecturers expect of teaching qualifications, as stated in section 6.10, TVET college lecturers' teaching needs ought to be addressed by the TVET lecturer qualifications. Participants outlined what they expected to be included in the curriculum for the lecturers' qualifications (Table 15).

Table 15: Participants' expectations vs the policy on TVET college lecturer qualifications

PARTICIPANTS' EXPECTATIONS	POLICY EXPECTATIONS (DHET, 2012:7)
Inclusive education in a vocational curriculum	Not covered
Educational psychology for vocational curriculum	Not covered
Vocational curriculum assessments	Not covered
Teaching of practical aspects of their subjects	Practical learning
Bridging the gap between knowledge and application for teaching purpose	Situational learning
Vocational pedagogy	Vocational pedagogical learning
Better ways of teaching than the traditional ways	Fundamental learning
Relevant subject didactics, e.g. didactic: electrical infrastructure	Disciplinary learning

The above table highlights how some areas are not addressed by the policy on lecturer qualifications, although participants viewed them as important. Those items include psychology, assessments, and inclusive education for vocational students.

One of the items highlighted was assessments, and it is critical that TVET college lecturers understand them, as theory and practical assessments cannot be conducted in the same manner. The onus is therefore on institutions of higher learning to include assessments when they design their TVET lecturer qualifications, taking cognizance of their needs. A few participants stated that if their suggestions could be considered in the design of these qualifications, they could register for them to keep abreast with the relevant trends in vocational education, despite being regarded as professionally qualified.

The policy for the qualifications of TVET lecturers has been perused to ascertain whether there might be any knowledge gaps between TVET lecturer qualifications

and teacher qualifications. This study found that TVET college lecturers have a PGCE teaching qualification, but that it is not relevant to their daily task of teaching a vocational curriculum. However, the lecturer qualifications do not make any provision for lecturers with PGCEs, to bridge the knowledge gap between these two sets of qualifications. It may be inferred that teaching by lecturers with PGCEs and those with one of the lecturer qualifications might also differ. In addition, looking at the types of qualifications that are specified in the policy, one might agree that they could limit the employment opportunities of those who enrol for these qualifications. For example, if a student teacher enrols for a BEd-VC, they can only be employed to teach in a TVET college. In the Eastern Cape, there are only eight TVET colleges and four universities. If these universities offer the BEd-VC and produce 100 graduates, these graduates would not all be employed in the TVET colleges, indicating that the demand will be less than the supply.

For in-service TVET college lecturers who are regarded as professionally qualified as per the policy, very few can enrol for a lecturer qualification which is offered on a full-time basis with a duration of more than a year. What is obvious is that the 3- and 4-year lecturer qualifications cannot serve the in-service lecturers. The main reason is that they are professionally qualified (according to the policy) and only need to close the knowledge gap between their general teaching qualifications and the TVET lecturer qualifications. In terms of the competence of TVET college lecturers it is, however, concerning if they only have a PGCE and do not upgrade to a TVET lecturer qualification.

6.5.2 Provision for closing the gaps

The findings from this study revealed how general teaching qualifications assist in vocational teaching, although it has some pedagogical gaps. Participants themselves mentioned some gaps that they have in teaching with general teaching qualifications. In contrast, the policy on TVET lecturer qualifications states very clearly that lecturers with general teaching qualifications are regarded as professionally qualified, and there is no further provision for upskilling them with what was missed by that training. What may be inferred is that TVET colleges will still have lecturers with different teaching qualifications, different

pedagogical skills and different understanding of the curriculum expectations. This pedagogical gap will always have an impact on the level of competency of lecturers, because the current competence requirements are not the same as those recognised before 2013. The current competency requirements of TVET college lecturers are discussed below.

6.5.3 The competence of TVET college lecturers

The delivery of quality TVET is dependent on the competence of the lecturers. Competence is measured in terms of theoretical knowledge and technical and pedagogical skills, as well as keeping abreast of new technologies in the workplace (African Union, 2007). Wuttke and Seifried (2017:2) view competence as the combination of an individual's knowledge, ability, and willingness to cope successfully with situational demands. This study concurs with the definitions of competence stated above, as it was evident that TVET college lecturers need to have an academic qualification, relevant pedagogy, and relevant real-world experience in order to be competent.

Some participants expressed concern about National Diplomas and National N Diplomas being a minimum requirement for employment of TVET college lecturers, in that these lecturers have very limited content knowledge. Report 191 learners are studying towards their National N Diploma; hence competent lecturers should have better content knowledge than them. Another concern was about the availability of technology and that students in general tend to have knowledge that is more content-related.

This study found that a relevant teaching qualification is regarded as key for TVET college lecturers. The TVET college lecturers possess the relevant content knowledge – a relevant qualification that will equip them on how to transfer it to learners using the relevant pedagogy is required.

According to Grollmann (2015:5),

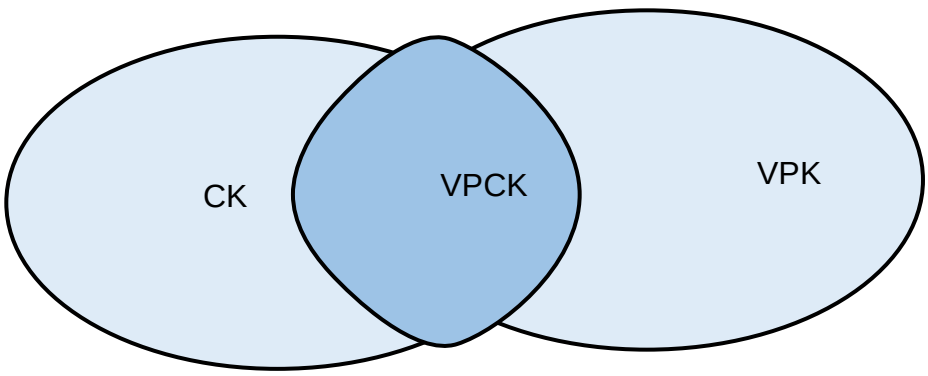
> One of the levers to improve the quality of vocational teachers is raising the level of qualifications needed and the education received which leads to those qualifications. On a general level, two models of vocational teacher recruitment and training can be distinguished: a model that is based on the recruitment and preparation patterns of academic teachers and a model that is often referred to as 'alternative recruitment'.

Given the fact that vocational teachers are expected to bring work experience and specific occupational knowledge into their educational institutions, different ways of recruitment are established that deviate from those used for academic teachers. Work experience is often required for TVET college lecturers as a precondition to employment as a vocational teacher. However, this is often seen as an alternative and less preferable route compared with general teacher recruitment and is associated with lower formal expectations of teachers.

The researcher concurs with Grollmann (2015) and Blom (2016) that TVET college lecturers should be equipped both on the level of their academic qualifications and pedagogy and their practical knowledge as they prepare students for the workplace or for further studies. As indicated in Chapter 2, this study adopted Shulman's (1986) theory of PCK. This theory is relevant to this study because Shulman (1986:13) understood that outside the relevance of strong content knowledge, teachers require a rock-solid foundation in PCK; that is, a type of professional knowledge that is used to teach the content of a particular branch of knowledge. With reference to TVET college lecturers, content knowledge alone is not adequate – they require relevant pedagogy that will equip them with particular professional knowledge that they will use to teach content in their relevant subjects.

Based on the findings of this study, Shulman's model is rearranged and presented below:

Figure 3: The vocational PCK (VPCK) model



CK = content knowledge; VPK = vocational pedagogical knowledge; VPCK = vocational PCK.

According to this study, at TVET colleges some lecturers have subject content knowledge but lack relevant pedagogical knowledge. Shulman's (1986) model proposes that all teachers must have content knowledge and pedagogical knowledge, and amalgamate them into pedagogical content knowledge (PCK). It is not possible for TVET college lecturers to present meaningful and interesting lessons if they just have pedagogical knowledge. Pedagogical knowledge has proved to be inadequate for TVET college lecturers, as it does not address certain areas that they deal with in their daily teaching (for example, practical lessons).

Therefore, instead of pedagogical knowledge, this study suggests vocational pedagogical knowledge. Participants voiced the need for vocational pedagogy throughout the study. Vocational pedagogy is a mix of situated and disciplinary knowledge. The theory-practice combination that is characteristic of the vocational curriculum is an acknowledgement that problem-solving abilities inherent in any form of skilled work are as much about solving the problem in one's head as they are about solving the problem by doing or experimenting in a practical way. One of the major challenges of vocational pedagogy is putting "the abstract" (theory) and the "situated" (practice) together (DHET, 2009:15). Pedagogical knowledge lacks the combination of theory and practice for teaching that vocational pedagogy has.

The blending of content knowledge with vocational pedagogical knowledge will not be PCK, as per Shulman's model, but vocational PCK or VPCK. VPCK is an exclusive body of knowledge for vocational teaching, and it happens when content and vocational pedagogy are combined for vocational teaching purposes. It will equip lecturers with the relevant knowledge and skills that will assist them in their teaching in vocational classes. According to Shulman (1986), it represents the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organised, represented, and adapted to the

diverse interests and abilities of learners, and presented for instruction (Shulman, 1987:4).

Shulman's definition of PCK is rephrased to fit the VPCK model: VPCK represents the blending of content and vocational pedagogy into an understanding of how particular topics, problems, or issues are organised, represented, adapted to the diverse interests and abilities of learners, and presented for instruction. This includes practical and simulation teaching.

6.6 Conclusion

This chapter focused on data analysis and interpretation and discussion of the findings. The literature was used critically to confirm or reject the findings, with the aim of answering the main research question and the research sub-questions.

The next chapter will provide a summary of the study and its conclusions and recommendations.

CHAPTER 7

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

The previous chapter presented the findings and discussions of the findings, and discussed how each theme that emerged answers the research questions. This chapter presents a summary of the main findings that emerged from this study. In addition, recommendations pertaining to the key findings as discussed in the previous chapter are made. The first section of this chapter covers an overview of the previous chapters, followed by the conclusions drawn, and ends with recommendations for future study.

7.2. TVET college lecturers and pedagogies

This study concluded that many TVET college lecturers have a limited understanding of the concept of 'pedagogy'. In addition, it was concluded that the general teaching qualification that some lecturers possess only covers subject didactics rather than pedagogy, which indicates that they are familiar with subject didactics rather than pedagogy. Vocational pedagogy was also a very new concept to them, and they showed interest in understanding it. The conclusion drawn from the participants' understandings was that there is a vast difference between general pedagogy and vocational pedagogy. Each of these pedagogies prepares its teachers or lecturers to teach in a different educational setting, and hence the difference in their lesson design.

The study revealed that any teaching requires pedagogy, and the study concluded that pedagogies in general are somehow important to a vocational class. Since TVET colleges offer different sets of the vocational curriculum, general pedagogy is deemed relevant to some fundamental subjects, but is not relevant across all courses; consequently, there is a need for vocational pedagogy. It was learned from this study that there is a performance gap between lecturers with knowledge of pedagogy and those without such knowledge. Although some lecturers did not possess knowledge of pedagogy, their results

were not poor, since 60% was above average, as pointed out by one of the participants. However, many participants admitted that they believed that there was a gap in their knowledge of pedagogy, and were eager to close the gap by obtaining knowledge of vocational pedagogy in the hope of improving teaching and learning in their classes and getting better results than 60%.

This pedagogical gap proved that content knowledge alone is not enough for good- quality teaching.

7.3 General teacher training vs vocational class

It was evident from this study that teaching in a school and teaching in a college differ. The difference is mainly found in the expectations of each curriculum, as discussed in the previous chapter. The learning outcomes of school subjects and related vocational subjects differ, since learning outcomes are influenced by the type of curriculum. The outcomes of a vocational curriculum state that 60% must be practical and 40% theory, whereas the school outcomes are 100% theory.

This study found that there is an insignificant relationship between what the teacher qualifications cover in their curriculum and the vocational curriculum. Teacher qualifications equip TVET college lecturers with general teaching knowledge rather than vocational teaching. These general teaching qualifications were designed for school teachers rather than TVET college lecturers, and the subject didactics that they study are for school subjects. This study has concluded that TVET college lecturers understand the concept of vocational curriculum as well as the fact that it prepares students for the world of work.

It was found that TVET college lecturers expect their teaching to be sharpened and improved once they enrol for teaching qualifications. However, the conclusion is that teaching qualifications do not address the entire expectations of the TVET college lecturers, as they do not equip them with the requisite skills to deliver the vocational curriculum.

7.4 Bridging the pedagogical gap

TVET college lecturers were not aware of the new TVET lecturer qualifications, although they are targeted for them. However, they expect these qualifications to address their teaching needs and focus more on their vocational subject teaching, and to cover aspects of dealing with learners with special needs in a vocational class. This study concluded that no provisions were made by these lecturer qualifications to bridge the gap for those lecturers with teaching qualifications to align their knowledge with lecturer qualifications. For TVET college lecturers to be competent, the conclusion is that they need to have content knowledge that is added to their academic qualifications, a vocational pedagogy that should be incorporated into their lecturer qualifications, as well as the relevant current practical knowledge.

7.5 The contribution of this study

This study has highlighted certain issues that concern the pedagogy of TVET college lecturers. Institutions of higher learning should consider what information is important for TVET college lecturers and what they believe is required of the lecturer qualifications when developed by HEIs. This will assist them in introducing what is necessary for TVET lecturers instead of developing qualifications that are not appropriate. When reviewing the policy on TVET lecturer qualifications, it will benefit HEIs to examine the findings and recommendations of this study. The TVET college academic section and skills development section will both benefit from the findings of this study when they plan the developmental programmes for TVET college lecturers in their colleges.

7.6 Recommendations

Based on the findings of this study, as tabled in Chapter 5 and discussed in Chapter 6, the following are recommended for the pedagogy of TVET college lecturers, so that the gaps identified by this study are closed:

The concept of vocational pedagogy should be a module in the lecturer qualifications, so that lecturers may learn about it and its importance and relevance to vocational teaching. TVET colleges should encourage lecturers to include their knowledge of vocational pedagogy in their teaching and learning. TVET lecturers should be made aware that subject didactics is not relevant, nor is it necessary, and it differs diametrically from pedagogies in the design of teacher and lecturer qualifications.

On the performance of lecturers, the analysis of the results was based on the number of students who wrote the examinations instead of the number enrolled, because reasons for student attrition are mainly external factors over which lecturers have no control. Consequently, basing the results on the number of students who wrote the examinations gives a true reflection of the individual lecturer's results. Thus the real gaps could be identified, and support may be given to a lecturer whose performance is in question.

TVET college lecturers should be introduced to the fundamentals of the vocational curriculum and its expectations, to be able to deliver the content according to the general outcomes of the curriculum. This needs to be achieved through training, workshops and orientation programmes that the DHET should develop to ensure uniformity in the content thereof.

For TVET college lecturers to be regarded as competent, M+4 academic qualifications are recommended, and relevant practical experience could be an added advantage. A teaching qualification should not be required as it is now, but should be required once a lecturer is hired, to ensure that he or she studies for the relevant lecturer qualification. This could be accomplished by assigning a timeframe to a newly hired lecturer for registering for and completing the relevant TVET lecturer qualification.

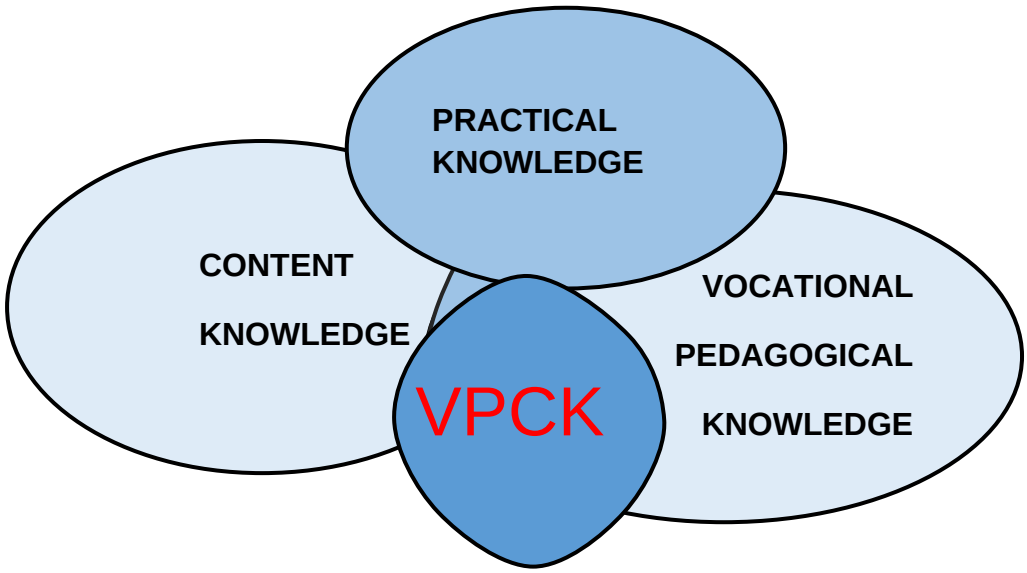
The DHET should introduce a lecturer training centre in each province that will deal with lecturer trainings on content and pedagogy, to ensure that lecturers' knowledge is up to date and lecturers are conversant with the latest ways of

teaching. In this centre lecturers should be able to share good practices during the training in order to improve their performance.

A 1-year NQF-7 programme that bridges knowledge gaps from the PGCE-FET band is required for lecturer qualifications. It is necessary for universities to develop this qualification, whereas the DHET should revise the policy on lecturer qualifications to accommodate this recommended qualification.

It is recommended that the following model is used to determine the competence of TVET college lecturers. This model will assist TVET colleges and the DHET when they review their recruitment policies, as it outlines the recommendations regarding what a TVET college lecturer should possess in order to be competent, as well as each competence that is required.

Figure 4: Competence model for TVET college lecturers



The above model is appropriately labelled a competence model for TVET college lecturers, and was developed as a result of the gap that was revealed by the findings and the theoretical framework of the study. The PCK model and VPCK model that were discussed in Chapters 2 and 6, respectively, missed the element of practical knowledge as a competence element of a TVET college lecturer, and

have subsequently been included in this recommended model. Its importance is seen when lecturers are required to deliver lessons and assessments in workshops and simulation rooms. They cannot deliver practical lessons effectively if they lack the relevant and latest practical experience in their field. With only practical skills, it will be difficult to use the appropriate teaching methods and tools if they do not have vocational pedagogy.

There is an interconnection among these three elements of lecturer competence. For employment purposes, content knowledge should be a prerequisite and practical knowledge should be a necessity. If a lecturer is employed with only content knowledge, work-based exposure (otherwise known as work-integrated learning) is recommended to take place within a year of employment. For vocational pedagogy, a lecturer's qualification is recommended; if the lecturer is already employed, it must be ensured that he or she studies for a relevant TVET lecturer qualification.

7.7 Recommendations for further research

The study recommends the following areas for further research:

- A study could be conducted to investigate what could be relevant lecturer programmes for which in-service lecturers may register to keep abreast with the changes in teaching a vocational curriculum.
- A study could be undertaken to determine what constitutes good results for a lecturer to be regarded as a top performer.
- A follow-up study is possible to determine the level of involvement of TVET college lecturers in the design of lecturer qualifications by the universities.
- A study could also be undertaken to determine the appropriateness of an artisan qualification for TVET college lecturers who teach in formal vocational classes, as it is an N3 trade certificate.
- In addition, a study could be undertaken to expand more on the competence model of TVET college lecturers that was proposed in this study.

7.8 The contents of each chapter of the study

In the first chapter, the full background to the study was given. This chapter served as a map identifying each of the chapters that this study comprises and provided information regarding the contents of each. A short literature review was provided to support the research problem of this study. It ended with an outline of the chapters.

In Chapter 2, Shulman's theory was discussed as the theoretical framework of this study. Shulman's theory of PCK was employed in this study to underpin the importance of blending content knowledge and pedagogical knowledge in teaching.

In Chapter 3, the literature review presents the existing knowledge about the subject researched in this study. Concepts of pedagogy, vocational pedagogy, and the vocational curriculum were discussed in detail.

Chapter 4 presented the methodology of the study, beginning with an in-depth discussion of interpretivism as the research orientation. The ethical stance of the researcher in relation to the study was discussed, with special reference to his position in the study.

Data was collected using all of the methods detailed in Chapter 4, and this data was presented in Chapter 5. Since the study was a qualitative one, a short discussion accompanied the data presentation.

To clarify the data presented in Chapter 5, an in-depth discussion was presented in Chapter 6. The discussion was organised according to the data presentation and the questions that were posed in this study. The discussions were guided by the themes that were developed based on the findings. Results and moderation reports were also analysed to validate the findings.

Chapter 7, which presents the last chapter of the research report, highlights a summary of the findings in relation to the research questions and conclusions that were drawn from the study. Recommendations that emerged from the study

findings are tabled, and issues for further study and limitations conclude this chapter.

7.9 Limitations of the study

This study was geographically limited to the Province of the Eastern Cape, and findings cannot be generalised to the other eight provinces. In this study, time was a limitation, as the researcher was a full-time employee. Although this study was funded by Department of student funding at UNISA, the funds were not immediately available, resulting in the use of the researcher's own funds. In addition, the advent of COVID-19 and the subsequent lockdown prevented the collection of additional data.

7.10 Conclusion

This chapter presented a summary of findings which were discussed in Chapter 6. The study has revealed the importance of pedagogy in teaching and how pedagogy assists in vocational classes. Although the policy for new lecturer qualifications (DHET, 2013) states that lecturers who already have teaching qualifications are competent, the study revealed that there might be a pedagogical gap between these two qualifications. A competence model for TVET college lecturers was presented and discussed.

References

Abdullah, Z., Hoque, K., Ralman, H. & Shaffee, T. 2019. *Designing the Structural Model of TVET Lecturers' Professionalism and Generic Skills on Empirical Study in Malaysia.* Kuala Lumpur: Sage.

African Union. 2007. *Strategy to revitalize Technical and Vocational Education and Training (TVET) in Africa*. Addis Ababa: African Union.

Allen, D. & Fraser, B.J. 2007. Parent and student perceptions of classroom learning environment and its association with student outcomes. *Learning Environments Research*, 10(1): 67-82.

Aliyu, A. 2015. *Ontology, Epistemology and Axiology in Quantitative and Qualitative Research: Elucidation of The Research Philosophical Misconception*. Bauchi, University of Agriculture.

Andreas, J. & Beukes, G. 2018. *The Need for The Development of Formal Qualifications for TVET Lecturers*. Bloemfontein: Central University of Technology.

Axmann, M., Rhoades, A. & Nordstrum, L. 2015. *Vocational teachers and trainers in a changing world: the imperative of high-quality teacher training systems*. Geneva: International Labour Office.

Baleegh-ur-Rehman, M. 2017. *National Education Policy, Pakistan*. Islamabad: Ministry of Federal Education and Professional Training.

Bagwandeen, D. 1999. *A study of the provision of distance education for the upgrading and improvement of the qualifications of teachers in the province of Kwazulu Natal*. Pretoria: UNISA.

Banks, F., Leach, J. & Moon, B. 1999. *New understandings of teachers' pedagogic knowledge*. Berkshire: Open University Press.

Bashir, M., Afzal, M. & Azeem, M. 2008. *Reliability and Validity of Qualitative and Operational Research Paradigm*. Lahore: Division of Education.

Baumert, J., Kunter, M., Blum, W., Brunner, M., Voss, T., Jordan, A. & Tsai, Y. 2010. Teachers' mathematical knowledge, cognitive activation in the classroom, and student progress. *American Educational Research Journal*, 4: 133-180.

Baxter, P. & Jack, S. 2008. *Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers*. Ontario: Mc Master University.

Berg, L. 2016. *Qualitative research methods for the Social Sciences*. Long Beach, CA: California State University.

Bhengu, S.M.E. 1995. *White paper on Education and Training*. Pretoria: Government Printer.

Bhowmik, M., Banerjee, B. & Banerjee, J. 2013. Role of pedagogy in effective teaching. *Basic Research Journal of Education Research and Review*, 2: 1-5.

Biku, T. & Demas, T. 2018. The effect of teaching without pedagogical training in St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia. *Advances in Medical Education and Practice*, 9: 893-904.

Billet, L. 2003. Vocational Curriculum and pedagogy: an activity theory perspective. *European Educational Research Journal*, 3: 1-50.

Blanco, E., Schirmbeck, F. & Costa, C. 2019. Vocational education for the Industrial Revolution. *Lecture Notes in Networks and Systems*, 1(1): 649-658.

Blom, R. 2016. *Towards a Vocational Pedagogy for South African TVET Educators*. Johannesburg: Centre for education Policy Development.

Boka, K. & Paterson, A. 2016. *Change Management in TVET Colleges: Lessons Learnt from the Field of Practice*. Cape Town: African Minds.

Booyens, J. 2009. The value attached to teaching qualifications by educators and other stakeholders at a Further Education and Training college in Southern KwaZulu Natal. Unpublished thesis, University of KwaZulu-Natal, Durban.

Bowen, G. 2017 Document analysis as a qualitative research method. *Qualitative Research Journal,* 9(2): 27-40.

Briggs, A. & Coleman, M. 2007. *Research methods in Educational Leadership and Management.* Singapore: Sage.

Burpee, P. & Wilson, B. 1995. *Professional Development: What teachers want and Universities Provide: A Canadian Perspective*. Milton Keynes: Routledge

Carbetta, P. 2003. *Social Research Theory, Methods and Techniques.* London: Sage.

Cedefop. 2015. *Vocational pedagogies and benefits for learners: practices and challenges in Europe*. Cedefop research paper, 05-90. Greece: Cedefop.

Chakroun, B. 2019. National Qualifications Framework and TVET teacher competence frameworks: A neglected dimension of qualifications reforms? *European Journal of Education*, 54(3): 370-388.

Chetram, R. 2017. *The Management of Continuous Professional Development at a TVET College in Kwazulu Natal*. Pretoria: University of South Africa.

Chróinín, D., Fletcher, D. & O'Sullivan, M. 2018. Pedagogical principles of learning to teach meaningful physical education. *Physical Education and Sport Pedagogy*, 23(2): 117-133.

Cheserek, G. 2012. *Quality management in quality development and delivery in African Universities. A case study of Moi University, Kenya*. Eldoret: Moi University.

Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. 2010. Teacher credentials and student achievement in high school: A cross-subject analysis with student fixed effects. *The Journal of Human Resources*, 45(3): 665-681.

Cohen, L., Manion, L. & Morisson, K. 2011. *Research Methods in Education*. New York: Routlege.

Collins. 2018. *Collins English Dictionary and Thesaurus*. Glasgow: HarperCollins.

Creswell, J. & Clark, V. 2007. *Designing and conducting Mixed Methods Research*. Thousand Oaks, CA: Sage.

Creswell, J. 2010. *Research Design: Qualitative, quantitative and mixed methods approaches.* 3rd ed. London: Sage.

Creswell, J. 2014. *Research Design: Qualitative, Quantitative and Mixed Methods Approach*. Nebraska: Sage.

Crowe, S. 2011. The case study approach. *BMC Medical Research Methodology*, 6: 22-34.

Dele-Rotimi, A.O. & Oyinlana, O.P. 2014. Effect of professionally qualified teachers on academic performance of junior secondary school students in Mathematics: A case study of Ikere Local Government Area of Ekiti State. *Journal of Research in Education and Society*, 5(1): 60-64.

Denscombe, M. 2010. *The Good Research Guide for a Small-Scale Social Research*. 4th ed. Berkshire: Open University Press.

Denscombe, M. 2013. *The good research guide*. Berkshire: Open University Press.

Department of Education. 2000. *Recognition and Evaluation of Qualifications for Employment in Education.* Pretoria: Government Printer.

Department of Education. 2005. *Teachers for the future: Meeting teacher shortages to achieve Education for All.* Pretoria: Government Printer.

Department of Education. 2007. Norms and Standards for Educators. *Government Gazette*. Pretoria: Government Printer.

Department of Education. 2008. *Approval for the document: National Plan for The Further Education and Training Colleges in South Africa*. Pretoria: Government Printer.

Department of Higher Education and Training. 2009. *The National Policy Framework for lecturer qualifications and development in FET colleges in South Africa*. Pretoria: Government Printer.

Department of Higher Education and Training. 2012. *Policy on Professional Qualifications for Further Education and Training College Lecturers*. Pretoria: Government Printer.

Department of Higher Education and Training. 2013. *Minister's Strategic Session with Entities and Stakeholders.* Cape Town: Department of Higher Education and Training.

Department of Higher Education and Training. 2015. TVET College Lecturer Qualifications. *Government Gazette*. Pretoria: Government Printers.

Department of Higher Education and Training. 2016. *Annual Report*. *Government Gazette*. Pretoria: Government Printers.

Department of Higher Education and Training. 2014. *Qualification profile of lecturers employed by public TVET colleges in South Africa*. Pretoria: Government Printer.

Dotse, K. 2019. *Teaching Methods, Teaching Strategies, Teaching Techniques and Teaching Approach: What are they?* Winneba: University of Education.

Drew, C., Hardman, M, Hosp, J. 2008. *Designing and Conducting Research in Education.* Utah: Sage.

Durance, A. & Fisher, E. 2005. *How Libraries and Librarians help: A guide to identify user centered outcomes*. Chicago: American Library Association.

ENCA. 2013. *Thousands of unqualified teachers are teaching SA children*. Johannesburg: DStv channel 403.

Enqvist, J. 2015. *Pedagogical Content Knowledge*. Bradenton University of Applied Sciences.

ETDP. 2012. *Public Further Education and Training Sector Skills Plan 2013/14 Update.* Pretoria: ETDP SETA.

European Center for the Development of Vocational Training (Cedefop). 2012. *Vocational pedagogies and benefits for learners: practice and challenges in Europe*.: Cedefop.

European Trade Union Committee for Education (ETUCE). 2008. *Teacher education in Europe*. ETUCE Policy Paper. Brussels: ETUCE.

Ezugwu, G. & Ijeoma, C. 2016. *A Review of Teacher-Effectiveness and Students' Academic Achievement.* Zaria: Unknown.

Fahrman, B., Norström, P., Gumaelius, L. & Skogh, I. 2020. Experienced technology teachers' teaching practices. *International Journal of Technology and Design Education*, 30: 163-183.

Faraday, S.O.C. & Cooper, S. 2011. *Effective teaching and learning in vocational education.* London: LSN.

Fedorova, V. & Tretyakovaa, N. 2016. The Development of Vocational Pedagogical Education in Russia - Organizational and Pedagogical Aspect. *International Journal of Environmental & Science Education*, 8: 9803-9818.

Field, S., Hoeckel, K. & Kuczera, M. 2009. *OECD Policy Review of Vocational Education and Training.* Paris: OECD.

Fouka, G. &. Mantzorou, G. 2011. *What are the major ethical issues in conducting research?* Athens: Technological Educational Institute.

Gabrhelová, G. & Pasternáková, L. 2016. Teachers in the Context of Vocational Education. *Acta Technologica Dubnicae*, 6(3): 100-113.

Gallicano, T. 2013. An example of how to perform open coding, axial coding, and selective coding. Infographics and informational interviews. Available at: https://prpost.wordpress.com/2013/07/22an-example-of-how-to-perorm-open-coding-axial-coding-and-selective-coding/ [Accessed: 25 August 2015].

Gamble, J. & Young, M. 2006. *Knowledge, Curriculum and Qualifications for South African Further Education*. Cape Town: HSRC press.

Goldhaber, D. & Anthony, E. 2010. Can teacher quality be effectively assessed? National board certification as a signal of effective teaching. *The Review of Economics and Statistics*, 89(1): 134-150.

Gomm, R. D. 2000. *Producing evidence ethically*. Thousand Oaks, CA: Sage.

Green, E. 2015. *Building a Better Teacher: How Teaching Works*. Columbia: W. W. Norton & Company.

Grollmann, P. 2015. The quality of vocational teachers: teacher education, institutional roles and professional reality. *European Educational Research Journal*, 18 10.

Grosch, M. 2017. Developing a competency standard for TVET teacher education in ASEAN countries. *Journal Pendidikan Teknologi dan Kejuruan*, 23(3): 279-287.

Guerriero, S. 2015. *Teachers' Pedagogical Knowledge and the teaching profession.* Paris: OECD.

Guerriero, S. 2016. *The OECD Teacher Knowledge Survey: Connecting Research to Policy and Practice*. Bristol: University of Bristol.

Hagar, P. 2004. The competence affair, or why vocational education and training urgently needs a new understanding of learning. *Journal of Vocational Education and Training*, 2: 423.

Harkin, J. 2012. *Institute for Learning Preparatory Research to Inform the Work of the Commission on Adult Vocational Teaching and Learning*. London: Institute for Learning.

Henning, E., van Rensburg, W. & Smit, B. 2011. *Finding your way in qualitative research.* Pretoria: Van Schaik.

Hobley, J. 2015 Vocational pedagogies: The science of teaching or the teaching of science. *Journal of Education and Training Studies,* 1: 2.

Honawar, V. & Viadero, D. 2011. Credential of NBPTS has impact. Education Week.

Human Resource Development Council. 2014. *Synthesis report of the TVET college technical task team.* Pretoria: HRDCSA.

Huberman, A. & Miles, M. 2002 *The qualitative researcher's companion*. Thousand Oaks, CA: Sage.

Illeris, K. 2007. *How We Learn: Learning and non-learning in school and beyond*. London: Routledge.

Johnson, B. & Christensen, L. 2008. *Educational research: Quantitative, Qualitative & Mixed Approaches.* Thousand Oaks, CA: Sage.

Kansanen, P. & Meri, N. 2015. Didactic relation in the teaching-studying-learning process. *Didactic*, 4: 3.

Kelly, K. 2015. *Authentic student assessment strategies for the online environment.* Vancouver: BC Campus & Commonwealth of Learning.

Kiggundu, E. & Nayimuli, S. 2009. Teaching practice: a make-or-break phase for student teachers. *South African Journal of Education*, 29(2): 345-358.

Kivunja, C. & Kuyini, B., 2017. Understanding and applying research paradigms in educational context. *International Journal of Higher Education*, 55(8): 41.

Kosnik, C., Menna, L., Dharamshi, P. & Miyata, C. 2017. So how do you teach literacy in teacher education? Literacy/English teacher educators' goals and pedagogies. *Australian Journal of Language and Literacy*, 40(1): 59-72.

Kumar, R. 2014. *Research Methodology: A step by step guide for beginners.* Thousand Oaks, CA: Sage.

Kulshrestha, A.K. & Pandey, K. 2013. Teachers training and professional competencies. *Voice of Research*, 1(4): 29-33.

Lubis, S. 2010.. Concept and implementation of vocational pedagogy in TVET teacher education. In *Proceedings of the 1st International UPI conference on TVET, Bandung Indonesia* (pp. 10-11). Pretoria: Center for education policy development.

Li, Y. 2016. *Expatriate Manager's Adaptation and Knowledge Acquisition: Personal Development in Multi-National Companies in China*. Wuhan: Springer Publications.

Loo, S. 2018. *Teachers and Teaching in Vocational and Professional Education.* Abingdon: Routledge.

Lucas, B. & Claxton, G. 2016. *Wider Skills for Learning: What are they, how can they be cultivated, how could they be measured and why are they important for innovation.* London: Nesta.

Lucas, B. 2014. *What it is, why it matters and what we can do about it*. London: City & Guilds.

Lucas, B. 2015. *Vocational Pedagogy: what it is and why it matters*. London: University of Winchester.

Lucas, B. 2016. *Vocational Pedagogy: What it is and why it matters?* Winchester: University of Winchester.

Lucas, B., Spencer, E. & Claxton, G. 2012. *How to teach vocational education: A theory of vocational pedagogy.* London: Expert Pedagogy Group.

Maguswi, B.V. 2012. Factors contributing to under achievement of Zambia female students in O-level Physics examinations: a case of selected high schools in Central Province. Unpublished doctoral dissertation. University of Zambia , Chilanga.

Management, 2015. Universal teacher. [Online] Available at: Universal.com

Maluleke, R. 2019. *A Pedagogy for Technology Education: An Indigenous Perspective.* Pretoria: UNISA.

Maoyuan, P. 2007 The important position of the issue of higher vocational education in pedagogy. *Chinese Education and Society*, 7: 22-33?

Marabini, A. & Moretti, L. 2020. Goldman and Siegel on the epistemic aims of education. *Journal of Philosophy of Education*, 54(3): 492-506.

Maree, K. 2010. *First Steps in Research*. Pretoria: Van Schaick.

Mayar, J. 2011. Towards a youth employment strategy for South Africa. Cape Town: Development Bank of Southern Africa.

McMillan, J.H. & Schumacher, S. 2001. *Research in Education, A Conceptual Introduction.* New York: Longman.

McNamara, C. 2000. *General guidelines for conducting interviews*. Minnesota: University Press.

Mgijima, N. & Morobe, N. 2012 ETDP SETA Public Further Education and Training Sector Skills Plan 2013/2014 update. *Mediterranean Journal of Social Science*, 4: 359-369.

Mgijima, N. 2014. Needs-based professional development of lecturers in further education and training colleges: A strategic imperative. *Mediterranean Journal of Social Sciences*, 3: 360-361.

Mishra, P. & Koehler, J. 2006. *Technological Pedagogical Content Knowledge: A framework for teacher knowledge*. Michigan: Columbia University.

Mokone, K. 2011. *The Impact of Academic Development Programmes on the Performance of Lecturers in the Classroom at Public Further Education and Training Colleges*. Pretoria: Unknown.

Moody, G. & Wheelahan, L. 2012 Integration and fragmentation of post compulsory teacher education. *Journal of Vocational Education and Training*, 2: 317-331.

Mortaki, S. 2012. *The contribution of Vocational Education and Training in the preservation and diffusion of cultural heritage in Greece*. Athen: University of Athens.

Motitswe, J. 2017. *A Shift from Pathological-Deficit Model: Towards Productive Pedagogies in Inclusive Schools*. Pretoria: UNISA.

Mouton, J. 2011. *Understanding Social Research*. Pretoria: Van Schaick.

Mpofu, N. & Maphalala, M.C. 2018. A comprehensive model for assessing student teachers' professional competence through an integrated curriculum approach. *The Journal for Transdisciplinary Research in Southern Africa*, 14(2): 1-9.

Mpu, Y. & Adu, E. 2019. Reframing TVET colleges into 21st century Learning Organisations. *American Journal of Humanities and Social Sciences Research*, 3(7): 96-102.

Msibi, A., Mncwango, A. & Memela, S. 2014. *TVET Lecturer Development: An innovative delivery model amongst KwaZulu Natal TVET Colleges*. Pretoria: JET Education Services.

Naele, P., Thaba, S. & Boyce, C. 2006. *Preparing a Case Study: A Guide for International.* Far East Square: Pathfinder International.

National Board for Professional Teaching Standards. 2010. *Impact of national board certification on teacher practice & schools.* [Accessed: 12 July 2017].

Mbina, J.B. 2012. Teachers' competence and students' academic performance in senior secondary schools chemistry: is there any relationship? *Global Journal of Educational Research*, 11(1): 15-18.

Njeru, E. & Orodho, J.A. 2003. *Access and participation in secondary school Education in Kenya: Emerging issues and policy implications*. IPAR DP 037/2003. Town: Publisher.

Nieuwenhis, T. 2007. *First Steps in Research.* Pretoria: Van Schaick.

Obomanu, B.J. & Adaramola, M.O. 2011. Factors related to under achievement in Science, Technology and Mathematics Education (STME) in Secondary Schools in Rivers State, Nigeria. *World Journal of Education*, 1(1): 102-109.

Ormond, B.M. 2017. Curriculum decisions – the challenges of teacher autonomy over knowledge selection for history. *Journal of Curriculum Studies*, 49(5): 599-619.

O'Leary, C. 2014. The essential guide to doing your research project. Los Angeles: Sage.

Organisation for Economic Co-operation and Development (OECD). 2012. *Learning for jobs. Summary and policy messages.* Paris: OECD.

Papier, J. 2008. *Report on the Training of FET College Lecturers in South Africa, England and other International Context*. Cape Town: University of Western Cape.

Papier, J. 2017. A comparative study of TVET in 5 African Countries with a specific focus on TVET Teacher Education. *Vocational Education and Training in Sub-Saharan Africa*, 15: 41.

Raju, J. 2006. A careful blend of general and vocational education: Is this Social Science Research? Leicester: University of Leicester.

Ravitch, D. 2010. In Need of a Renaissance. *American Educator*, 34(2): 11.

Rebeena, D. 2022. Student teacher's perception of online Teaching Practice Programme. *Journal for All Subjects*, 11(7): 1-6.

Rice, A. & Kitchel, T. 2019. Influence of knowledge of content and students on beginning agriculture teachers' approaches to teaching content. *Journal of Agricultural Education*, 57(4): 86-100.

Roodt, D. 2013. *More back to apartheid education: teacher training colleges to reopen*. Johannesburg: New Age.

Rudman, L. & Meiring, L. 2018. Transforming vocational education: One lecturer at a time. *Journal for Vocational Education and training*, 11: 108-118.

Rule, P. & John, V. 2013. *Your guide to case study research*. Pretoria: Van Schaik.

SAQA. 2016. *South African College Lecturers: Biography, Knowledge, Pedagogy.* Waterkloof: University Press Southern Africa.

Sarıkaya, Erdrem, Y. & Yıldırım, A., 2019. *Effective teaching and learning at vocational education at tertiary level: A qualitative study of administrators', teachers' and students' perceptions*. European Research Network, Vocational Education and Training Network.

Schröder, T. 2019. A regional approach for the development of TVET systems in the light of the 4th industrial revolution: the regional association of vocational and technical education in Asia. *International Journal of Training Research*, 17(S1): 83-95.

Sermuka, S., Chianchanab, C. & Stirayakornc, P. 2014. A Study of Model of Vocational Curriculum Development under Vocational Education Commission Using Cross-Impact Analysis. In *Proceedings of the 5th World Conference on Educational Science* (pp. 1896-1901). North Bangkok: Science Direct.

Sewel, M. 2005. *The use of qualitative interviews in evaluation*. Tucson: University of Arizona.

Shields, S. 2011. **The use of case studies in information operation**. Louisiana: Warfighting Analysis Division.

Shulman, S. 1986. *The practical and the eclectic: A deliberation on teaching & educational research*. Stanford: American Educational Research Association.

Shulman, S. 1987. *Those who understand: Knowledge growth in teaching*. Stanford: American Educational Research Association.

Shulman, S. 2005. Signature Pedagogies in the professions. *Daedalus*, 134(3): 52.

Sirk, M. & Liivik, R.Loogma,K. 2016. Changes in professionality of Vocational Teachers as viewed through the experiences of long serving vocational teachers in Estonia. *Empirical Research in Vocational Education and Training*, 8(13): 55-68.

South African Council for Educators (SACE). 2011. *A Position Paper on the Professional Registration of FET College Educators*. Pretoria: SACE.

Strebler, M., Neathey, F. & Tackey, N. 2014. *Recruitment and Retention of teachers with industrial or professional experience.* Argyll Street: Learning and Skills Development Agency.

Taylor, N. 2011. *What's wrong with South African Schools? What's working in School Development?* Johannesburg: Jet Education Services.

Tennis, J. 2008. *Epistemology, Theory, and Methodology in Knowledge Organization: Toward a Classification, Metatheory, and Research Framework*. Washington: University of Washington.

TimesLIVE, 2017 Removing unqualified teachers would create a 'crisis' in SA. Pretoria: Sunday Times.

Timperley, H., Wilson, I., Barrar, H. & Fung, I. 2014. *Teacher Professional Learning and Development.* Auckland: University of Auckland.

Tufford, A. &. Newman. P. 2010. Bracketing in qualitative research. Paris: Sage.

Van der Bijl, A. & Oosthuizen, L. 2019. Deficiencies in technical and vocational education and training lecturer involvement qualifications and its implications in the development of work related skills. *South African Journal of Higher Education*, 33(3): 205-221.

Victoria State Government (VGSA). 2016. *Roles and Responsibilities: Teaching Services*. Victoria: Victoria State Government.

Waite. M. (ed). 2007. *Oxford Paperback Dictionary & Thesaurus*. New York: Oxford University Press.

Walkington, J., Christensen, H. & Kock, H. 2001. developing critical reflection as part of teaching training and practice. *European Journal for Engineering Education*, 26(4): 343-350.

Wang, Z.N. 2012. *Knowledge sharing, innovation and firm performance Expert Systems with Applications.* Lahore: University of Lahore, Pakistan.

Wheelahan, L. 2010. *Why knowledge matters in curriculum, A social realist argument.* London: Routledge.

Widodo, H.P. 2012. *Methodological Considerations: Transcription as the Act of Representing. Analysing and Interpreting Data*. Adelaide: University of Adelaide.

Wolf, A. 2011. *Review of Vocational Education - Wolf Report*. United Kingdom: Education Trust.

Wuttke, E. & Seifried, J. 2017. *Professional Error Competence of Preservice Teachers*. 1st ed. Mannheim: Springer International Publishing.

Yassim, K., Rudman, N. & Maluleke, L. 2019. Enabling Vocational Lecturer Capacities Towards Sustainable Human Development: Towards Radical Revisioning. Cham: Springer Nature Switzerland.

Yenmez, A., Ozpinar, I. & Şahin, S. 2016. Teacher Training System and Process: Opinions of Teacher Candidates on Teacher Qualifications. *Higher Education Studies*, 6: 8.

Yin, R. 2018. *Case study research design: Design and Methods*. London: Sage.

Zinn, B., Raisch, K. & Reimann, J. 2019. Analysing training needs of TVET teachers in South Africa: An empirical study. *International Journal for Research in Vocational Education and Training,* 13:1-25.

Zirkle, C. & Martin, L. 2012. *Challenges and Opportunities for Technical and Vocational Education and Training (TVET) in the United States*. Columbus: The Ohio State University.

Zubac, I. 2020. Anchoring students in action through inquiry-based learning. *Journal of Social Sciences*, 3(1): 19-22.

Zungu, Z. & Munakandafa, P. 2014. *Positive Learning Experiences at FET College*. Pretoria: Human Resource Development Council for South Africa.

APPENDICES

APPENDIX A: PARTICIPANT WITH TEACHER QUALIFICATION

PARTICIPANT G OF COLLEGE B

This participant was a 61-year-old white female with PGCE, Honours degree in Communication, Master's degree in environment and development. She has worked for a total of 16 years in an agricultural college, at a University and currently is at a TVET College. She is a qualified assessor.

Q1 Yes, Vocational Curriculum caters for older students. The approach is different; it focuses on theory, practical and application.

Q2 Not at all. At school level, they do a lot more of creative writing, essays, poetry, books etc. It is more traditional way of teaching English. Vocational Curriculum, in Communication, the focus is very much of a business language. The learning is about to produce business letters, report, being able to summarise. It is about learning to write in a concise and clear way, and is factual, rather that writing a creative essay about "my day in the city".

Q3 I can actually give you my latest analysis of results. It is over 90% and it varies from class to class, and I normally get a couple of distinctions. Surprisingly, in my groups, the Management Assistant group always do better than the other groups, they have six distinctions, compared to the Financial Management group that had one distinction.

Q4 My overall results are satisfactory. However, when I do my analysis, my pass rate drops because of the students that are not deregistered, and those that did not meet the minimum requirements to be admitted to the examinations. However, when I am looking at only those students that wrote my results on average are between 98% to 100% pass. The problem is that they sometimes do not read and understand the questioning, and they do not give detailed answers. I always say to them, they need to put more meat on the bones of the skeleton.

Q5 Not really, I try to keep up to date. For me, I am a life- long learner.

Q6 The study of the ways on how to teach or teaching methodology.

Q7 Methods of teaching for Vocational Training and skills

Q8 My whole background is on environmental development and is about action learning, which is vocational education. It would it matter where I am teaching, I would bring that experience of learning how to do, in other words experiential learning, of which vocational education is all about that. The major problem with Vocational Education is that most time is spent on teaching instilling the basics, though more time should be spent on practical. However, without that foundational knowledge, you can move to practical. I think it also depends on what you are aiming to achieve, if for example, you look at the University Education, the main aim is about analytical and critical thinking, and bring in new body of knowledge, it is very much more of a mental exercise. In Vocational Education, the outcome is on the skills acquisition, hence teaching cannot be the same, unless you want to see your TVET College students falling away. Vocational Education is also a good bridge between a high school and a University, example, if you have a National N Diploma, and further your studies at the University, you are more likely to succeed than a person is straight from the school.

Q9 English and Life Orientation

Q10 It was good. It has sharpened my thinking and gave me a classroom teaching background on planning, and the assessment side of it. I found it very useful.

Q11 To some extent but I think it could do more. I also think that it is misleading that the PGCE-FET Band is also for TVET College lecturers, because it does not cater for Report 191 lecturers. Yes, for NCV lecturers, they might be catered for, since their programme is equivalent to the FET Band. There is a big difference between Report 191 and NCV, NCV is closer to schools, while Report 191 is closer to Universities. That is where the problem starts, PGCE does not cater for post-matric teaching, though there is a demand for that.

Q12 No, I am not aware. I am surprised why I did not hear about them because I was involved in the revision of Report 191 curriculum, working for QCTO.

Q13 We have got two programmes in the Report 191, Business Studies and Engineering, and the demand in these programmes are different. Particularly for NCV, there is a need for teaching about basic classroom practice, i.e., basic pedagogy in the classroom within the content of their subject area. Because the PGCE as it stands now does not allow you to study Mechatronics, you have to study something else. Therefore, these Engineering lecturers were never taught what they need for their courses. A lot of them do Mathematics because that is the easiest option to take. It is easier for you if you are in the finance field because there is Accounting, and there is Business Studies, so they relate to Financial Accounting, Entrepreneurship and Business Management. Again, it is very difficult for those that teach Human Resources, Public Management, there are no available options for them. So, I would recommend that these new lecturer qualifications to teach lecturers on how to teach these specialised subjects better. That will assist most lecturers, as they are currently struggling to adapt to the qualification that was designed for school to a TVET. So, the qualification is so useful as it should be. The administration side of teaching in a TVET College should also be included.

Q14 I can register for these new qualifications if they really talk to the TVET College teaching environment.

Q15 Degree, and a teacher qualification in vocational. A Diploma can be considered only if the person has an extensive practical experience. Otherwise, you cannot teach diploma student with a diploma, as you need to have an advanced knowledge than your students.

Q16 No. Not at this stage in my career. However, if that option can be available, I think most lecturer would jump into it. I would recommend that DHET consider the introduction of coaching and mentoring in campuses, just to give a pedagogical direction and support. A person that will be there to assist lecturers on how to deal with issues of assignments, how to deal with some students etc.

APPENDIX B: PARTICIPANT WITH NO TEACHER QUALIFICATION

PARTICIPANT F OF COLLEGE A

34-year-old black female with ND Cost and Management Accounting, BTech Cost and Management Accounting.

Q1 30 students on average

Q2 Vocational Education - bridges the gap on students that did not make it in high school. It gives an opportunity for those that feel that they are older for schools and prepares youth for employment. In my understanding, vocational curriculum should not be so difficult; it should give short skills to students, like plumbing etc. but it does not address that currently.

Q3 In my understanding, there should be a difference, but there is not really much difference. The only difference now with Vocational Curriculum is that, it allows students to specialise. As I have indicated earlier, it forgets to accommodate students that are not coping with mainstream subjects, that are expecting to be given a chance to do practical only. In schools, you only looking at feeding a student with theory.

Q3 70% pass results

Q4 I am not happy. When I left my high school teaching, I had 100% pass in Accounting. Therefore, I am not happy, but I think there are so many other challenges that are not addressed at College level. Example, you get a student that has failed Grade 10 in NCV L2, and a student that has passed Grade 9, as the requirement is Grade 9 pass. However, those Grade 9 pass students are not coping at all compared to Grade 10-12 students. There is also an issue of students that have failed the level, which is not addressed, because those students become demoralized and not willing to work harder, that result in me not achieving a 100% pass.

Q5 There are Gaps. I have a Cost and Management Accounting qualification, and I teach Financial Management, in as much they are related, I feel that there is a content gap. Example, there is a topic that deals with SARS, of which I lack information on. When I go to SARS to seek for information, I do not get the assistance.

Q6 A workshop would close the content knowledge gap.

Q6 Yes, I wish to register for PGCE, but I strongly feel that in our level, we do not have any teacher qualifications that are able to address our needs at college level. I am not feeling happy to go there and register for General courses. I went to UNISA but found out that their PGCEs only addresses high schools and lower levels, there is nothing addresses me at college level. The best thing I would do for myself is to equip me more on content, by getting better qualifications, because I am not happy with these teacher qualifications.

Q7 Lecturer qualifications should aim to bridge the gap between the subject content and actual teaching it in class and to help me to be able to go down to the level of students. It should also help me with the proper planning, because my qualifications the level is a bit high.

Q8 If I Enroll for a teacher qualification, I expect it to polish the administration side of teaching.

Q9 I am not sure if I know it.

Q10 Not sure about Vocational Pedagogy

Q11, I think there is a relevance on the general pedagogy and vocational educations because its teaching, but there is a huge difference between the learning outcomes of school and vocational education.

Q12 No, I am not aware.

Q13 These qualifications should equip lecturers to assist students with practical, and how to incorporate practical into their classes.

Q14 Qualified lecturer should have a specialist qualification coupled with teaching methods that are relevant to Vocational Education.

APPENDIX C: QUESTIONS

INTERVIEW SCHEDULE FOR LECTURERS WITH GENERAL TEACHER QUALIFICATION

BIOGRAPHICAL INFORMATION

AGE_____

RACE_____

Gender_____

Qualifications_____

Developmental courses attended_____

Total years of lecturing experience_____

Courses you teach_____

Classroom teaching

In your own view, how does teaching in a normal school class differ from a TVET college class?

In your own view, how does the learning outcomes of a related subject in a school differs from the learning outcomes of your subject that you currently lecture?

How are your results on average?

Are you satisfied with your results?

Are there any gaps that you have identified in your teaching knowledge?

If yes, how can they be addressed?

Is there any other information you would like to add?

Relevance of general teacher qualifications

What is your understanding about Pedagogy?

What is your understanding about Vocational Pedagogy?

In your own view, are there any interrelations or differences between general pedagogy and vocational education? Qualify your statement.

In your teacher qualification, which subject pedagogies did you study?

Are those pedagogies relevant to a vocational subject that you are teaching? How?

How do they help you in delivering your lessons?

Did those pedagogies equip you for the planning of a lesson in a workshop or simulation room?

If no, how do you plan your practical lessons?

DHET has approved and gazetted TVET college lecturer qualifications - are you aware of them?

If you are aware of them, how do you view them?

Universities are in the process of developing lecturer qualifications. What areas of development would you like to see in each of those programmes being addressed?

In your own view, for a TVET college lecturer to be qualified, which qualifications do they need?

For employment purposes, DHET considers qualifications like NPDE, PGCE etc. as relevant teaching qualifications. Given a chance, would you further your studies with these new TVET college lecturer qualifications? Qualify your statement.

Is there anything that you would like to add or recommend?

APPENDIX D

INTERVIEW SCHEDULE FOR LECTURERS WITH NO TEACHER QUALIFICATION

BIOGRAPHICAL INFORMATION

AGE_____

RACE_____

Gender_____

Qualifications_____

Developmental coursed attended_____

Total years of lecturing experience_____

Courses you teach_____

Classroom teaching

How many students on average do you have in your class?

What do you understand about vocational curriculum?

In your opinion, is there any difference between school education and vocational education? How do they differ?

In your own view, how does teaching in a normal school class differ from a TVET college class?

How are your results on average?

Are you satisfied with your results?

Are there any gaps in your teaching knowledge and skills?

If yes, how can they be addressed?

Do you have any plans of registering any teacher qualification?

If yes, which course?

What will be your expectations in terms of teaching skills, that you would like this qualification to address?

How will your teaching be improved once you have a teacher qualification?

Relevance of general teacher qualifications:

What is your understanding about Pedagogy?

What is your understanding about Vocational Pedagogy?

In your own view, are there any interrelations or differences between general pedagogy and vocational education? Qualify your statement.

DHET has approved and gazetted TVET college lecturer qualifications - are you aware of them?

If you are aware of them, how do you view them?

Universities are in the process of developing lecturer qualifications. What areas of development would you like to see in each of those programmes being addressed?

In your own view, for a TVET college lecturer to be qualified, which qualifications do they need?

For employment purposes, DHET considers qualifications like NPDE, PGCE etc. as relevant teaching qualifications. Given a chance, would you further your studies with these new TVET College lecturer qualifications? Qualify your statement.

Is there anything that you would like to add or recommend?

APPENDIX: E

REQUEST FOR PERMISSION – CAMPUS MANAGERS

P.O. Box 612

Tsomo

5400

The Campus Manager

College A

Dear Sir

REQUEST FOR PERMISSION TO CARRY OUT RESEARCH AT YOUR CAMPUS

I am doing my Doctoral Degree in Education under the supervision of Prof. Mbunyuza-de Heer Menlah at University of South Africa. The title of my research is: The teaching pedagogy of TVET College lecturers: A case study of three Easter Cape TVET Colleges.

I am requesting your permission to use your campus as a research site. This study seeks to find if TVET college lecturers do need a teacher qualification, and to investigate if the current teacher qualifications that are currently offered by the Institutions of Higher Learning are relevant for the TVET college lecturers.

I am requesting to have access to the lecturers that are regarded as professionally qualified as they have a teacher qualification, as well as the ones that do not possess any teacher qualification. I will select a sample of only three colleges.

I would like to visit your campus on the 12 April 2018, at 08:30. I will be glad if you can organize for me a venue to use for the interviews. The data that will be collected from this study will be used for academic purposes only and is not intended to bring disrepute to the participants nor the campus or college.

I am looking forward to your positive response.

Yours truly,

……..

Siyabonga Prince Sixabayi

APPENDIX F

P.O. Box 612
Tsomo
5400

Dear participant,

Thank you for agreeing to participate in this study titled ‘The teaching pedagogy of TVET college lecturers. A case study of three Eastern Cape TVET colleges”. This study seeks to find if TVET college lecturers do need a teacher qualification, and to investigate if the current teacher qualifications that are currently offered by the Institutions of Higher Learning are relevant for the TVET college lecturers.

Please understand that you are not being forced to take part in this study and the choice whether to participate or not is yours alone. However, I would really appreciate it if you do share your thoughts with me. If you choose not take part in answering these questions, you will not be affected in any way. If you agree to participate, you may stop me at any time and tell me that you don’t want to go on with the interview. If you do this there will also be no penalties and you will NOT be prejudiced in ANY way. Confidentiality will be observed professionally throughout.

I will not be recording your name anywhere on the questionnaire and no one will be able to link you to the answers you give. Only the researcher will have access to the unlinked information. The information will remain confidential and there will be no “come backs” from the answers you give.

The interview will last around 45 minutes *(this is to be tested through a pilot).* I will be asking you questions and ask that you are as open and honest as possible in answering them. I will be asking some questions that you may not have thought about before, and which also involve thinking about the past or the future. I know that you cannot be absolutely certain about the answers to these questions but I ask that you try to think about them. When it comes to answering questions there are no right and wrong answers.

I believe your input will be very useful for the completion of this study.

Yours in research,

Mr S.P. Sixabayi (PhD Fellow)

APPENDIX G

PARTICIPANT INFORMATION SHEET

Date: April 2018

Title: The teaching pedagogy of TVET college lecturers. A case study of three Eastern Cape TVET colleges.

DEAR PROSPECTIVE PARTICIPANT

My name is Siyabonga Prince Sixabayi and I am doing research under the supervision of Prof. Mbunyuza de Heer Menlah, a professor in the Department of Curriculum and Instructional Studies towards a D Ed at the University of South Africa. We are inviting you to participate in a study entitled: The teaching pedagogy of TVET college lecturers. A case study of three Eastern Cape TVET colleges.

WHAT IS THE PURPOSE OF THE STUDY?

This study is expected to collect important information regarding experiences that TVET college lecturers have in teaching with or without a vocational teaching pedagogy.

WHY BEING AM I INVITED TO PARTICIPATE?

You are invited because you have been teaching vocational classes in your college, and you will be able to give rich information that will add value to this study.

I obtained your contact details from two lists of lecturers, those that have teacher qualifications and those that do not have, that was provided to me by the Head of Division in your campus. A total number of eight lecturers will be selected from your campus, four in each category.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

The study involves unstructured interviews. The researcher will use a voice recorder to ensure that he capture your answers accurately. Notes will also be taken during the interview. Questions will be dived into three sections. The first section is biographical information, the second one is the classroom teaching and the last one is the relevance of the general teacher qualification in a vocational setting. The interview can take up to 45 minutes and will be between 08:30 to 15:00.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

Since this study involves lecturers, no sensitive information will be involved.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

Your name will not be recorded anywhere, and no one will be able to connect you to the answers you give. Your answers will be given a code number or a pseudonym and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

The researcher will store hard copies of your answers for a period of five years in a locked filing cabinet in the researcher's home for future research or academic purposes; electronic information will be stored on a password-protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. When necessary, hard copies of the data will be shredded and electronic copies will be permanently deleted from the hard drive of the computer using a relevant software programme.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

There will be no incentives for participating in this study.

HAS THE STUDY RECEIVED ETHICS APPROVAL?

This study has received written approval from the Research Ethics Review Committee of the College of Education Ethics Review Committee, Unisa. A copy of the approval letter can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings, please contact Mr. S.P. Sixabayi on 072 384 6306 or email siya.ikhala@gmail.com or fax on 086 603 0193. The findings are accessible at the end of this study in April 2019.

Should you require any further information or want to contact the researcher about any aspect of this study, please contact 072 384 6306 or email siya.ikhala@gmail.com or fax at 086 603 0193.

Should you have concerns about the way in which the research has been conducted, you may contact 072 649 5731, email stillaluuta2017@gmail.com.

Thank you for taking time to read this information sheet and for participating in this study.

Thank you.

_____

Signature

_____

Mr S.P. Sixabayi

APPENDIX H

CONSENT/ASSENT TO PARTICIPATE IN THIS STUDY (Return slip)

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the interview.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname (please print) _____

Participant Signature Date

Researcher’s Name & Surname (please print) _____

_____

Researcher’s signature Date

APPENDIX I

ETHICAL CLEARANCE CERTIFICATE

UNISA university of south africa

UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 2018/03/14

Ref: 2018/03/14/45206651/12/MC
Name: Mr SP Sixabayi
Student: 32152302

Dear Mr Sixabayi

Decision: Ethics Approval from 2018/03/14 to 2023/03/14

Researcher(s): Name: Mr SP Sixabayi
E-mail address: Siya.ikhala@webmail.co.za
Telephone: +27 82 818 7159

Supervisor(s): Name: Prof M de Heer Menlah
E-mail address: Mbunynmm@unisa.ac.za
Telephone: +27 12 429 1312

Title of research:

The teaching pedagogy of the TVET College Lectures: A case study of the three Eastern Cape TVET Colleges.

Qualification: D Ed in Curriculum and Instructional Studies

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 2018/03/14 to 2023/03/14.

*The **low risk** application was reviewed by the Ethics Review Committee on **2018/03/14** in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the UNISA College of Education Ethics Review Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No field work activities may continue after the expiry date **2023/03/14**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2018/03/14/45206651/12/MC** *should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Kind regards,

Dr M Claassens
CHAIRPERSON: CEDU RERC
mcdtc@netactive.co.za

Prof V McKay
EXECUTIVE DEAN
Mckayvi@unisa.ac.za

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

APPENDIX J

PROOFREADING CERTIFICATE

Leverne Gething, M.Phil., *cum laude*

PO Box 1155, Milnerton 7435; cell 072 212 5417

e-mail: leverne@eject.co.za

30 October 2023

Declaration of Editing of a PhD thesis:

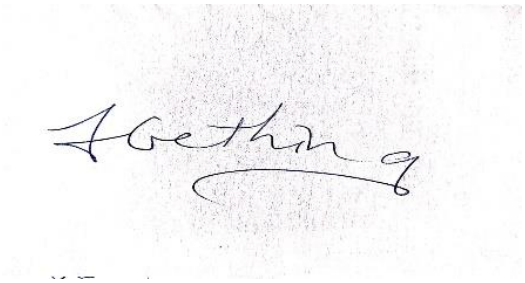
THE TEACHING PEDAGOGY OF TVET COLLEGE LECTURERS: A CASE STUDY OF THREE EASTERN CAPE TVET COLLEGES

I hereby declare that I carried out language editing of the above thesis on behalf of Siyabonga Prince Sixabayi.

I am a professional writer and editor with many years of experience (e.g. 5 years on *SA Medical Journal*, 10 years heading the corporate communication division at the SA Medical Research Council), who specialises in Science and Technology editing – but am adept at editing in many different subject areas. I have previously edited many academic papers and theses for various higher education institutions and journals.

I am a full member of the South African Freelancers' Association as well as of the Professional Editors' Association.

Yours sincerely



LEVERNE GETHING

leverne@eject.co.za