University of the Free State

Skills Development of Technical and Vocational Education and Training (TVET) Students: A Letaba TVET College Case Study, Maake Campus.

By Mmankwana Thomas Thobela

2020864530

A mini-dissertation submitted in fulfilment of the requirements for the degree:

Master of Development Studies (MDS)

Faculty of Economic and Management Sciences

Centre for Development Support

Course Code: EMDS7900

Bloemfontein Campus

Supervisor: Prof. Lochner Marais

2025

DECLARATION

I, Mmankwana Thomas Thobela, declare that this dissertation titled, “Skills Development of Technical and Vocational Education and Training (TVET) Students: A Letaba TVET College Case Study, Maake Campus”, submitted for the partial fulfilment of the degree of Master’s in Development Studies is my work and has not been submitted elsewhere for another qualification.

31 July 2025

Signature Date

Student Number: 2020864530

DEDICATION

I would like to dedicate this dissertation to my late parents, buried on the same date – 08/02/2025

To my late father, RICHARD LEKASHA THOBELA,

You have been inspirational to my upbringing: “Makhwenepe, Monareng.”

To my late mother, CHRESTINA NKGABE (SODI)THOBELA,

You supported me through my early years of schooling until my first year of tertiary education: “Agee Maasodi, letsoga nkwe gwa tsoga mmutla ke ditshego.”

.

ACKNOWLEDGEMENTS

The successful completion of this dissertation is a result of contributions by different individuals, whom I wish to acknowledge with gratitude:

- My supervisor, Prof. Lochner Marais, for supporting me throughout my studies in completing this dissertation and always being available and pushing me to work harder.
- My wife, who encouraged me to apply for this study, and my children, for their undivided support during the difficult moments.
- Mr M.W. Malatjie, who did not get tired of consultations and assistance in the beginning.
- Dr Dewa Alton, for providing valuable feedback throughout the writing process.
- Mr J.P. Odendaal, for the technical and language editing of the dissertation, a brilliant job.
- Mr S.E. Leshabane, who exposed me to the UFS master's degree program during his difficult moments until he completed his master's in development studies. He showed me that hard work pays off.
- Last but not least, Mr Mngomezulu, the giant and patient guru of MDS: keep it up.

ABSTRACT

Against the backdrop of ongoing national difficulties such as poverty, unemployment, and skills mismatches, this study critically assessed the skills development experiences of students at Letaba TVET College, Maake Campus, South Africa. Significant obstacles persist despite efforts to improve technical and vocational education and training (TVET) outcomes through national initiatives such as the White Paper for Post-School Education and Training and the National Skills Development Strategy (NSDS) III. This qualitative case study used purposive sampling, thematic analysis, and semi-structured interviews to investigate what influences students' ability to acquire new skills, what they anticipate and encounter throughout their time in school, and how well training programs meet the needs of employers.

Findings reveal that severe resource constraints, curriculum misalignment with industry needs, and limited industry-academia collaboration significantly impede effective skills development. Participating students reported a disjunction between theoretical instruction and practical application, leading to inadequate job readiness and reduced employability. Furthermore, external factors such as underfunded institutional support and systemic policy constraints exacerbate these challenges, hindering the capacity of TVET institutions to produce workforce-ready graduates. Although experiential learning and entrepreneurship opportunities were shown to have isolated positive impacts, they were inconsistently implemented, thus failing to systemically transform student outcomes.

The study concludes that meaningful improvements require comprehensive reforms, including substantial investment in infrastructure, dynamic curriculum alignment with evolving industry standards, strengthened public-private partnerships, and strategic policy innovations. A proactive integration of technology, enhanced industry exposure through structured internships, and targeted faculty development initiatives are recommended to bridge the gap between education and employment. Addressing these systemic shortcomings is imperative if TVET colleges are to fulfil their potential as catalysts for socio-economic transformation and inclusive development in South Africa. The findings contribute to the growing body of literature advocating for holistic, market-responsive, and inclusive strategies in vocational education reform, particularly within emerging economies navigating the Fourth Industrial Revolution.

Keywords: Technical and Vocational Education and Training (TVET), Skills Development, Employability, Industry-Academia Collaboration, Curriculum Alignment, South Africa

LIST OF ABBREVIATIONS

4IR	Fourth Industrial Revolution
ILO	International Labour Organization
TVET	Technical and Vocational Education and Training
WBE	Work-Based Exposure
WIL	Work-Integrated Learning

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1:
INTRODUCTION

Skills shortages are one of South Africa's biggest structural problems, worsening the socio-economic divide, unemployment, inequality, and poverty in the country. Building a competitive and inclusive economy requires structured, accessible, and responsive education and training institutions to boost human capital. Effective skills development interventions can boost productivity and economic performance by improving workers' employability and adaptability in changing labour markets, according to the World Bank (2012).

Although there has been an increase in employment, disparities remain. The employment rate in South Africa increased from 35.9% in 2021 to 39.1% in 2022, while the unemployment rate decreased from 34.9% to 32.9% (Sibiya, 2024). A lack of technical and professional skills is a big problem that educational reforms are trying to hide from South Africans. South Africa requires institutions that can effectively connect the supply of education with the demand in the market. Colleges offering technical and vocational education and training (TVET) are crucial to national development since they produce workers with marketable skills that can fill open positions both now and in the future (Allais, 2012).

The national employment and skills crises emphasise the need to improve vocational education. TVET institutions must teach technical skills and problem-solving, adaptability, and entrepreneurship. Both adults and school-leavers attend these institutions to become industry-ready graduates. Infrastructural backlogs, outdated teaching methodologies, inadequate staff training, and weak industry links have hampered TVET college performance (Akoojee & McGrath, 2007; Allais, 2012). Skills development programs depend on enhancing the systemic quality and institutional responsiveness of colleges.

Letaba TVET College's Maake Campus is a crucial institution that needs to be investigated for national progress. The campus struggles to deliver theoretical learning that meets shifting industry standards and lacks practical exposure to boost students' confidence and job preparedness. Doe and Smith (2020) emphasise that students typically struggle to apply their knowledge in real-world scenarios due to intermittent job learning and poor simulation facilities. Employer feedback shows gaps in graduates' communication, cooperation, and problem-solving skills, indicating a lack of technical and soft skills development (Jacobs &

Gassner, 2015). These issues prevent students from finding meaningful work or starting businesses.

While some universities have updated their courses to suit 21st-century employment realities, others have not. Structured partnerships between TVET colleges and industries ensure curriculum relevance, mentorship, and smoother school-to-work transfers, according to Ogbuanya and Shodipe (2022). Letaba TVET College's Maake Campus still struggles to create and maintain these relationships. Singapore and Germany generate job-ready graduates through employer-led curriculum design, flexible qualification pathways, and integrated work-study programs. These global examples demonstrate the need for systemic reforms and cross-sector collaboration to make South Africa's TVET system responsive and effective.

1.1 Problem Statement

Letaba TVET College is envisioned as a revolutionary platform in South Africa, providing students with critical skills required for local and global employment. A gap exists, however, despite government efforts such as establishing TVET colleges and developing policies and frameworks such as the Skills Development Act No. 97 of 1998 and the National Skills Development Strategy (NSDS) III (Moodley & Singh, 2016). Evidence shows that many TVET students do not have the required skills, leaving them unprepared for the labour market (Denzin & Lincoln, 2011). This insufficiency exacerbates the prevalent unemployment, poverty, and socio-economic inequality in South Africa.

The push for automation and absorption in the Fourth Industrial Revolution (4IR) increased unemployment rates since mechanisation frequently replaced human functions (Chetty, 2018). While such developments are encouraging, they highlight the need to teach students sophisticated and relevant skills. TVET students are envisioned as a cadre equipped with "appropriate skills" to galvanise social growth through their involvement in TVET programs, according to the White Paper for Post-School Education and Training (DHET, 2013: 27). However, input from industry stakeholders suggests a perceived disconnect between TVET courses and real-world expectations.

An in-depth inquiry into the Maake Campus of Letaba TVET College is critical. Such an endeavour would allow for an assessment of the effectiveness of its skills development programs and to determine whether it is in sync with the requirements of the society it seeks to serve. Concurrently, it is critical to implement technology integration in these colleges to ensure

that students emerge as capable, competent individuals who can navigate modern industrial environments.

1.2 Research Aim and Objectives

This study investigated the experiences of Letaba TVET College, Maake Campus students regarding skills development. The objectives of this study were to:

1. Identify factors that manifest in issues affecting students of Letaba TVET College, Maake Campus on skills development.
2. Assess students' expectations and experiences of skills development at Letaba TVET College, Maake Campus.
3. Study the impact of skills development on the aspirations of students at Letaba TVET College, Maake Campus.
4. Explore students' experiences of acquiring skills development at Letaba TVET College, Maake Campus.

1.3 Methodology

1.3.1 Research approach

I opted for a qualitative methodology in this study. Qualitative research was adopted since it looks at social phenomena in great detail, in this case, students' experiences with skills development. To better understand the subjective world of human experience, qualitative research allows researchers to examine complicated occurrences in context (Denzin & Lincoln, 2011). To communicate with participants on an individual level, semi-structured interviews were primarily used. The purpose of this study was to gather detailed information from current and former students of Letaba TVET College to provide a true picture of their perspectives and experiences.

1.3.2 Research design

This qualitative case study examined Letaba TVET College, Maake Campus students' skills development experiences. Stake (1995) defines a case study as a detailed description and evaluation of a confined phenomenon, such as a person, program, institution, process, or social unit. This design supported the study's goal of investigating student experiences at Letaba

TVET College. Instead of just reporting on skills development in this situation, a case study explored its complexities, perhaps harbouring the potential to inform TVET practices.

The study's "case" was the cumulative experiences of Letaba TVET College, Maake Campus students. These experiences were analysed to determine how well the institution's faculty competencies, resource availability, curriculum structure, and skills development programs meet labour market and industry demands. A sharpened analytical approach guaranteed that the case study covered institutional strengths and skills delivery gaps.

The case study method was suitable for this topic since it allows researchers to examine individual-context dynamics (Yin, 2014). The aim was to gather narratives from students to answer the research questions in relation to how they viewed the college's role in career readiness, how teaching strategies meet industry needs, and what institutional barriers there are to skills transfer. These narratives led to a holistic comprehension of the research phenomenon.

1.3.3 Data collection strategy

Qualitative research was used to build this project, and semi-structured interviews were the main instrument used to gather data. Since semi-structured interviews are flexible, they allow for in-depth exploration of the event being studied by letting the interviewer and subject go into more detail about certain topics as the conversation goes on (Drever, 1995). There is a rhythm to this type of questioning, but it is not rigid. As a result, discussions may lead in directions that were not initially planned (Brinkmann, 2018). Students from the Maake Campus of Letaba TVET College participated in interviews in this study. Through these conversations, the goal was to record their ideas, thoughts, and real-life experiences on the institution's skill-building path.

In qualitative research, data collection tools are essential for ensuring that relevant, thorough, and rich information is obtained. A semi-structured interview guide was the main instrument for gathering data in this study (Appendix A). Since these interviews can take on many forms, there is some leeway to delve into other topics as the interview progresses, even though there is a set of questions or a prompt prepared beforehand (Dicco-Bloom & Crabtree, 2006). Questions regarding faculty perspectives, graduates' real-world experiences, curriculum alignment, and skills development were included in the interview guide. The dynamic design of this tool made it possible for each participant's story to unfold, leading to in-depth, situationally relevant insights. The core of qualitative research, according to Patton (2002), is

to probe deeply into individuals' experiences and perspectives; semi-structured interviews are ideal for this.

1.3.4 Data collection through semi-structured interviews

In this section, I briefly explain the semi-structured interview procedure as it is fundamental to qualitative research. Although there is structure to these interviews, there is also room for exploration of emerging themes, which is essential for capturing complex perspectives and experiences (Galetta, 2013).

During **interview preparation**, based on the study's goals, I prepared a thorough interview guide (Appendix A) before conducting any interviews. Based on the study's theoretical structure, this tool had open-ended questions meant to start a conversation (Roulston, 2010). Some of the aspects included were how students learn new skills, how teachers feel about the program, and how well the training matches what employers want.

Regarding **sampling and participant selection**, to find individuals whose viewpoints were both varied and instructive, I used a purposive sampling technique. Students from Letaba TVET College's Maake Campus took part in the study. Mason (2010) argues that data richness is achieved by purposive sampling since it guarantees that participant selection aligns with the study aims.

In **conducting the interviews**, each interview, envisaged to last 45 to 60 minutes, was conducted in a neutral environment conducive to open conversation. Building rapport is critical, as Rubin and Rubin (2011) advise.

In the **recording and transcription** phase, all interviews were audio-recorded with the consent of the participants. Bryman (2015) explains that this technique ensures data accuracy and allows transcribing, a necessary step before data analysis.

1.3.5 Sampling design

TVET students' skills development is a complicated issue and, therefore, a detailed evaluation of experiences, attitudes, and views is required. It was difficult to engage all Letaba TVET College, Maake Campus students due to the diversity and size of the student group. It would have taken time and data may be less useful if generated from a bigger, homogenous population (Etikan, Musa, & Alkassim, 2016).

Well-known sampling methods are probability and non-probability sampling. Quantitative research uses probability sampling to ensure that every member of a population has an equal chance of being selected. The non-probability sampling strategy utilised in this study selects individuals based on certain criteria rather than randomly. Non-probability sampling was best for this in-depth qualitative investigation.

Purposive sampling was utilised for this study. This method involves selecting participants based on qualities related to the study objectives or their life experiences (Neuman, 2013). Purposive sampling was used to select Letaba TVET College graduates who had completed their programs and were accessible to reflect on their training. This allowed a full analysis of their skills development experiences and results. Qualitative research requires data saturation (Fusch & Ness, 2015), which is the point in the data collection process when no new information is provided through further interviews or interactions. By considering this, the researcher guarantees that the sample size correctly represents diversity and the entire range of experiences by not ceasing data collection too soon. Keeping this in mind, 12 graduates were interviewed until data saturation was reached.

Many factors impacted the decision to utilise purposive sampling. First, purposive sampling gives the researcher a concentrated group of participants who have experienced the phenomenon under inquiry, providing context-specific insights (Lincoln & Guba, 1985). In this study, students who could clearly describe their skills development path were selected to bridge theory and practice at Letaba TVET College, notably the Maake Campus. Purposive sampling saved time and allowed me to dig deeper into the TVET experience rather than being diluted across a larger, less targeted sample. Purposive sampling was appropriate for this qualitative investigation due to its clear goals. This method provided comprehensive, thorough, and contextually relevant insights into Letaba TVET College, Maake Campus students' skills development experiences.

1.3.6 Data analysis

The semi-structured interview data were analysed using thematic analysis due to the study's qualitative nature. Braun and Clarke's (2006) six-phase paradigm guided the analysis. To familiarise myself with the data, interview audio recordings were transcribed verbatim and read several times to comprehend participant experiences and perspectives. In the second step, initial codes were generated by rigorously identifying and labelling relevant data segments that contained skills development patterns, meanings, or critical concepts. The third phase—

searching for themes—involved grouping linked codes in prospective themes that mirrored dataset patterns. In the fourth phase, assessing themes, these preliminary themes were validated twice: first for consistency within coded extracts, and second for agreement with the dataset. In the fifth phase, defining and naming themes, each topic was refined to determine its fundamental essence and relationship to the research objectives. In the sixth phase—producing the report—themes were woven into a coherent narrative that explores TVET students' experiences and perceptions at Letaba TVET College, Maake Campus.

Thematic analysis was chosen for its flexibility and ability to yield rich, thorough, and nuanced qualitative data reports (Braun & Clarke, 2006). This technique revealed latent and explicit meanings in participants' responses, exposing TVET skills development challenges and possibilities. According to Nowell *et al.* (2017), systematic theme analysis increases qualitative research rigour and dependability by developing a consistent and transparent analytic procedure.

The research objectives of this study were directly connected to the thematic analysis, ensuring emerging themes were relevant to them. The alignment enabled participants' lived experiences to inspire evidence-based judgements. Thus, thorough qualitative data analysis increased research credibility, dependability, and confirmability (Lincoln & Guba, 1985; Denscombe, 2014).

1.4 Research Ethics

Rigorous ethical consideration was required to investigate TVET students' skills improvement at Letaba TVET College, Maake Campus. Academic research is moral and technological, requiring strong ethical practices to protect participants and maintain the validity of the findings. According to institutional and disciplinary standards, this study followed various ethical processes.

A key part of informed consent was making sure participants understood the study's aim, procedures, and potential outcomes. According to ethical research practice, participants were given a detailed consent form (Appendix B) that explained the study's goals, data collection methods, risks, benefits, and their rights, including the right to withdraw at any time without penalty (Smith & McGannon, 2018). As can be seen in the consent form in Appendix B, the research was thoroughly explained to each participant, and their knowledge confirmed, before they provided written consent. All participant-identifying information was deleted or

pseudonymised during transcription and reporting to maintain confidentiality. This prevented personal identifiers from being linked to responses. Data were encrypted and password-protected on devices and folders accessible exclusively by me. According to ethical data management rules, all data will be kept for five years following project completion before being completely erased (Gray, 2017).

This study was also designed to avoid physical, emotional, and psychological harm. Participants were repeatedly reminded of their right to end the interview or withdraw if they felt uncomfortable. Although no hardship was expected, contingency procedures were in place to handle unanticipated repercussions sensitively and with appropriate referrals or support (Miller *et al*., 2012). Participants could review their interview transcripts before official analysis to increase confidence and transparency. Member-checking allowed participants to verify their contributions and clarify or retract them. This strategy aligned participant intent and researcher interpretation, boosting the credibility of findings (Lincoln & Guba, 1985).

Deception, used in experimental research to reduce bias, was not used in the study. Transparency was maintained throughout the data collection process. To maintain autonomy and voluntary, informed engagement, participants were informed of all goals, processes, and expectations (Resnik, 2015).

Cultural sensitivity was maintained throughout the research process due to the cultural diversity at South African TVET colleges. Respect and awareness of language, customs, beliefs, and socio-economic background were applied in all interactions. This sensitivity was required in creating an inclusive and respectful research environment (Lincoln & Guba, 1985).

Finally, data integrity was stressed in the study. All efforts were taken to avoid data distortion, selective omission, and misrepresentation throughout analysis and reporting. According to Ioannidis (2012), changing or removing inconvenient data breaches ethics and lowers research validity. This study presented results honestly, even when they contradicted initial assumptions. The final ethical considerations applied in this research were respect for human dignity, autonomy, and the integrity of knowledge production. These methods protected participants' rights and ensured that the research process met the highest academic and professional ethical standards.

1.5 Limitations

For academic research to be believable, it must be thorough and open about its limitations. The study's most evident shortcoming is that it only covered the Maake Campus of Letaba TVET College. The results can therefore only be applied to a specific setting, although the study did allow for a thorough investigation of institutional dynamics and experiences. Denzin and Lincoln (2011) say that qualitative case studies yield a lot of information but not much that can be used in other situations. So, while the results are useful for understanding how skills are developed at Maake Campus, they might not be representative of conditions or outcomes at other TVET schools in South Africa.

Another problem is that only qualitative data were used. The data were generated through semi-structured interviews and document analysis. This method provided deep, context-rich information about the experiences and points of view of students and staff, but it could also be interpreted in different ways. For example, participants may have given answers that were socially acceptable or kept critical opinions to themselves to protect the image of the school. This kind of participation bias can make the data less reliable since individuals may try to change the narrative to fit their own or their organisation's needs (Maxwell, 2012). Additionally, it can be difficult for qualitative research to cover a phenomenon completely while still providing enough information. This makes it hard to study every aspect of a complicated problem in a single study.

The study addressed these flaws through contextualisation and quantitative analysis. The study did not make false claims that the results are true for all campuses since it bases its findings on the special socio-economic and structural conditions of the Maake Campus. Triangulation was also used to boost trustworthiness by using several types of qualitative data from different sources, such as policy papers, institutional records, and interview transcripts, to confirm trends and lower the risk of relying too much on a single point of view (Carter *et al*., 2014). Taking these problems into account makes the study and results more trustworthy in the given situation.

1.6 Chapter Organisation

Chapter 2 critically reviews academic literature on TVET skills development from global and South African perspectives. The chapter discusses theoretical frameworks and empirical research on vocational training, employability, and labour market expectations. It also specifies essential conceptions, detects conceptual gaps in the knowledge base, and examines structural

and pedagogical aspects affecting practical skills development. The literature review underpins the study's theoretical perspective and analytical approach.

Chapter 3 describes the research methods and strategy used for the study. It discusses the research theory and qualitative method that were chosen, as well as why the Maake Campus of Letaba TVET College was selected as the subject of the single case study plan. The chapter also discusses the sampling methods, data gathering tools, and thematic analysis method that were used. Ethical concepts that support the study are also reviewed. These include full consent, participant privacy, and the researcher's duty to be fair. This part aims to make sure that the study is honest and follows good research practices, which will make the research more reliable.

Chapter 4 analyses and discusses the data. Braun and Clarke's thematic analysis methodology is used to examine participant interviews and institutional documentation. Key topics from data analysis guide the discussion, which focuses on TVET students' technical and vocational abilities. In light of Chapter 2's reviewed literature, these results provide a layered picture of Maake Campus's institutional practices and structural impediments to skills development. The chapter critically examines repeating patterns, contextual abnormalities, and vocational education consequences.

Chapter 5 synthesises the main findings of the study and offers conclusions that directly address the research objectives articulated in Chapter 1. It reflects on the broader implications of the results for TVET students, educators, policymakers, and the national skills development landscape. Practical, evidence-based recommendations are proposed to strengthen the effectiveness of training programs at Letaba TVET College and potentially other institutions with similar mandates. In addition, the chapter identifies the study's methodological limitations and outlines directions for future research, thereby contributing to the evolving discourse on vocational education and youth employability in South Africa.

CHAPTER 2:
LITERATURE REVIEW

2.1 Introduction

Chapter 2 examines literature TVET skills development difficulties and advances. TVET prepares students for employment market demands in several ways. It emphasises current technology, curricular relevance, and education and training quality. This chapter also examines the challenges of providing vocational education that meets student and industry needs. Furthermore, the chapter compares vocational education trends and difficulties worldwide. It emphasises teaching method innovation, industry-stakeholder engagement, and skills development policies that support the changing skills landscape. The chapter discusses the characteristics that make TVET programs successful and proposes a framework for improving skills development to better prepare students for careers.

2.2 Conceptual Framework of Skills Development

2.2.1 Definitions

Skills development refers to the systematic process of enhancing an individual's capabilities—both technical and non-technical—necessary for employment, productivity, and lifelong learning. According to Powell and McGrath (2019), skills development encompasses formal training, informal learning, and work-based experiences that equip individuals with competencies required in rapidly changing labour markets. In the context of TVET education, it involves providing students with occupation-specific skills, cognitive abilities, and soft skills to support career readiness and adaptability (Haßler *et al.*, 2020).

What makes someone employable, on the other hand, is the mix of characteristics, skills, and knowledge that helps them get a job and do well in their chosen field (Abdullah, Sumarwati, & Aziz, 2020). This idea is especially important in South Africa's education and training system after high school, where high youth unemployment makes the need for job-related training methods even more clear.

Developing people's skills is important not only because it makes people more employable but also because it helps the economy grow and keeps people together. If TVET students learn the

right skills, the results go beyond making money for themselves and include goals for national growth as a whole. (Green & Du Plessis, 2023) say that good methods for developing skills lead to more creativity, higher output, and fairer social conditions. Therefore, thinking about skills development in terms of being able to get a job is important for understanding how TVET schools such as Letaba TVET College shape human capital for South Africa's changing economy.

2.2.2 Theoretical perspectives

Tan (2021) claims that human capital theory-based education and training boost production and income. This paradigm emphasises skills learning for personal and organisational growth. Some experts say that human capital theory favours formal education above informal or experiential learning. According to Billett (2020), situated learning-aligned workplace learning stresses how people learn new abilities via professional and social interactions. This highlights the importance of both structured training and learning through doing. Such perspectives stress the need to develop practical skills collaboratively, aligned with real-world occupational demands. Moreover, they underscore that learners must be provided with opportunities to engage proactively in workplace activities.

These scholarly perspectives show how variables such as educational systems, workplaces, and individual motives make skills development more complex. As a result, formal education, on-the-job training, and continuous personal development are essential elements of holistic skills acquisition. The integration of these dimensions demonstrates that developing competence requires not just technical proficiency but also interpersonal skills, adaptability, and long-term professional growth. Therefore, ensuring that students are adequately prepared for the workplace necessitates a comprehensive, integrated learning model.

2.2.3 Skills demanded in the job market

The demand for skills in the employment market is influenced by factors such as migration, new technology, and changing economic situations. Soft skills that enable individuals to handle complex and diverse situations are highly valued by employers, as are technical abilities that are specialised in a sector. Important skills include the ability to think critically and creatively and manage others (Jones & Lee, 2020). According to Bughin *et al*. (2018), there is a growing demand for individuals with strong cognitive and emotional intelligence abilities, as well as advanced programming and information technology skills. This points to a trend towards more intricate skill sets that integrate technical knowledge with interpersonal ability.

The capacity to adapt to new technology, solve complex problems, and engage in analytical and interactive work will be increasingly valued, according to Autor, Levy, and Murnane (2003). However, Griffiths and Armour (2013) argue for a balanced approach that prioritises problem-solving, lifelong learning, and adaptation over technical skills. When it comes to preparing students for the workforce, Griffiths and Armour (2013) believe that training and education systems should emphasise adaptability and flexibility.

TVET, according to McGrath and Yamada (2023), can help bridge the gap between education and employment by tailoring its courses to students' needs in the workplace. Graduate employability, as well as innovation and competitiveness in the sector, depends on this combination. According to Winch (2013), a well-trained and flexible workforce requires an in-depth understanding of occupational knowledge that integrates practical skills with theoretical knowledge.

From these vantage points, it is clear that technical knowledge, mental agility, and emotional intelligence are all necessities in today's employment environment. Technological innovation impacts job patterns in modern economies, which are dynamic in nature. Learning and adapting throughout life are also emphasised. To meet these demands, a school system is needed that teaches its students to think critically and adapt to new situations on the job, not only in their first job. Economic and social progress are both aided by this strategy, which boosts graduates' employability.

2.3 Overview of Technical and Vocational Education and Training

2.3.1 Historical context

The Middle Ages saw the birth of apprenticeship programs that would later give rise to TVET (Ainley & Rainbird, 1999). The Industrial Revolution changed the status quo because of the increasing demand for engineers and manufacturers (Greinert, 2005). The rise of service-based economies and the increasing influence of technology on work processes necessitated changes to TVET systems around the world in the 20th and 21st centuries (Maclean & Wilson, 2009). Professionalism, adaptability, problem-solving, and lifelong learning are the pillars upon which this development rests to fulfil employer demands.

A major milestone was reached when the International Labour Organisation (ILO) and UNESCO acknowledged TVET as a key actor in promoting inclusive growth, social justice, and sustainable development (ILO, 2010; UNESCO, 2015). These recommendations hastened

improvements in TVET accessibility, quality, and relevance to the labour market in policy and practice.

2.3.2 Significance

TVET prepares students for the demands of modern jobs, increases economic growth, and improves society. Through the provision of vocational qualifications directly relevant to the labour market, TVET enhances employability and decreases youth unemployment (King, 2012). Additionally, it promotes innovation in technology and the economy, assists in filling critical skills gaps, and stresses the importance of continuing education throughout the individual's life (Atchoarena & Delluc, 2002).

Beyond job creation, TVET helps achieve broader socio-economic objectives. It helps underprivileged and disadvantaged individuals become more integrated into society by providing them with educational opportunities (Rudhumbu, 2021). To combat climate change and preserve the environment, TVET programs must place a greater focus on sustainable development and green skills.

The trajectory and objectives of a TVET program are dependent on the community in which it operates. The world economy and job market undergo constant change. Students need to be prepared for instant work, lifelong learning, and adaptation, which is why TVET programs need to be flexible and adaptive. To keep up with the times and effectively address societal and individual needs, TVET methods and policies must undergo reform and innovation.

2.3.3 Challenges

The ability of TVET institutions around the world to deliver high-quality, relevant education continues to be impeded by multiple systemic and contextual challenges. These challenges arise from dynamic societal, technological, and economic changes, as well as regional disparities. One of the most persistent global concerns is the need to adapt curricula to match the rapid advancement of technologies and evolving labour market requirements (Kana & Letaba, 2024). Consequently, TVET institutions must constantly train lecturers in emerging pedagogies and technologies, while also updating teaching resources to remain relevant and competitive (Pharamela & Singh-Pillay, 2025). Despite the potential of digital tools, access to them remains unequal particularly in rural campuses raising issues of digital inequality and educational justice (Mustaffa *et al.*, 2024).

In the South African context, TVET institutions often struggle with resource constraints, including underfunded infrastructure, limited industry-aligned equipment, and difficulties in attracting and retaining skilled educators (Mabutha, 2024). These resource challenges are compounded by policy and funding disparities that restrict institutional capacity and reduce training quality. Inadequate facilities in some colleges further limit the implementation of effective practical training (HEERDEN, 2021).

Another significant concern is the mismatch between TVET training and current industry expectations. Many graduates remain unemployed or underemployed since the competencies acquired during training are not aligned with real-world job demands (Sei & Challay, 2025). Strengthening linkages between colleges, industry, and government stakeholders is essential to improve curriculum relevance and employer responsiveness (Odiyo, Musyoki, & Makungo, 2022).

Additionally, TVET still suffers from negative societal perceptions that position it as inferior to academic education, which hampers enrolment and career enthusiasm. Overcoming this stigma requires widespread advocacy to promote the value of vocational training in achieving economic independence and entrepreneurial success (Yusvana, 2024). This includes improving awareness about TVET's potential to produce graduates who are capable of contributing meaningfully to sustainable development and green economy transitions.

Addressing these multifaceted challenges necessitates flexible curriculum reform, expanded public-private partnerships, increased investment in training infrastructure, and a comprehensive strategy that centres students' employability in a technology-driven, globalised economy. Institutions such as Letaba TVET College must respond to these pressures through proactive innovation and alignment with 21st-century skill sets to remain impactful.

2.4 Factors Affecting Skills Development

2.4.1 Institutional factors

Institutional factors are essential in acquiring TVET skills. The quality of student education and training is determined by curriculum relevancy, instructional methodologies, and infrastructure. If TVET graduates are to have the skills that companies are looking for, the curriculum must be in line with what the industry needs. According to McGrath (2010), the world economy is always changing, and with it, the necessity for TVET programs to change as well. There has to be cooperation between policymakers, industry players, and TVET institutions. According to

Wheelahan (2007), there needs to be a clear connection between occupational objectives and the curriculum. These objectives can include factors such as work-based learning, increasing employability, and aligning expectations between employers and students.

To keep students' attention and improve their learning outcomes, creative and student-centred approaches to the classroom are essential. Apprenticeships and on-the-job training help students make the transition from theoretical knowledge to practical experience (Billett, 2011). Such tactics, as pointed out by Grollmann (2008), can only be effective when qualified educators integrate business acumen with classroom expertise.

For skills training to be effective, modern, well-equipped facilities are necessary. In order to facilitate learning via doing that is reflective of actual workplace conditions, Lucas, Spencer, and Claxton (2012) highlight the importance of infrastructure. Many TVET schools lack the resources and modern infrastructure necessary to offer students modern, high-quality education (King & Palmer, 2010).

2.4.2 Socio-economic factors

Socio-economic issues greatly impact TVET program accessibility and efficacy. Economically disadvantaged students face systemic challenges in vocational education participation, persistence, and success. These include insufficient financial support, poor pre-entry education, and cultural and language marginalisation. In this age of the Fourth Industrial Revolution (4IR), curricular change must take into account students' diverse socio-economic circumstances, according to Kana and Letaba (2024). To ignore these inequalities risks prolonging TVET social stratification and marginalisation.

Financial constraints remain a major issue for students from low-income backgrounds. TVET institutions strive to be more accessible than universities, yet expenses in tuition, travel, housing, and study materials can be prohibitive. Dlamini (2020) claims that economic restrictions dissuade many potential students, notwithstanding government subsidies and bursaries. Access to sustained and targeted financial support is limited, resulting in significant dropout rates, especially among rural and underprivileged students. Thus, bursaries, stipends, and public-private partnerships must be strengthened to reduce economic marginalisation and encourage vocational training.

Access to educational facilities and technology is another important aspect of TVET inequality beyond affordability. Ralushai (2021) reports that many campuses lack modern workshops, digital connectivity, and learning resources. These gaps hinder experiential and practical

learning, which is essential to vocational education. Mbeki (2023) adds that when students learn under pressure without institutional assistance, this often strains their cognitive and emotional abilities. Thus, integrating ICT, improving Internet access, and investing in current training equipment are necessary to eliminate inequities and improve student learning.

Scholars recommend holistic, equity-driven pedagogy and socio-economic-context solutions to address these structural restrictions. Global TVET research trends focus on social support systems, infrastructure investment, and skills transfer mechanisms. In economies transitioning towards sustainability, skills development cannot succeed without addressing learners' lived circumstances (Odiyo *et al.*, 2022). These viewpoints argue that TVET institutions must establish inclusive frameworks that support underprivileged students through personalised interventions, curricular responsiveness, and ongoing infrastructure development.

2.4.3 Policy and regulations

International, national, and local policy and regulatory frameworks shape TVET program structure, resource allocation, and labour market alignment. Quality, equality, and relevance in skills development require effective policy interventions. Kana and Letaba (2024) propose aligning policy transformation in South African TVET institutions with 4IR competences to create a forward-looking and economically responsive curriculum. In the South African context, the White Paper for Post-School Education and Training (DHET, 2013) serves as the foundational policy guiding the development and transformation of the TVET sector. This policy outlines objectives for expanding access, improving quality, and aligning training with national development goals. Policies must be coherent, well-implemented, and related to national development priorities and the changing workplace to work well.

Even with good intentions, policy execution is difficult. Education departments and colleges have institutional opposition to change, poor budgets, and low ability related to policy (Seopetsa, 2020). TVET reform is complicated by overlapping mandates and inconsistent policy enforcement. Dlamini (2020) notes that organisations without infrastructure and leadership can fail to implement well-designed policies. Thus, institutional development and governance models that implement strategic policies in varied TVET settings are needed.

The credibility of TVET qualifications depends on policy framework quality assurance procedures. Accreditation and certification ensure that students graduate with transferable skills across sectors and locales. Global TVET research trends emphasise the necessity of

international benchmarking and regional cooperation in setting quality standards, according to Sei and Challay (2025).

However, policy and institutional autonomy must be balanced. Mbeki (2023) warns that inflexible policy frameworks might inhibit curriculum innovation and prevent TVET institutions from meeting community or sector demands. Therefore, regulatory systems must encourage accountability and flexibility. Odiyo *et al.* (2022) suggest that policy must include green economy transitions and sustainability imperatives to remain relevant in today's socio-economic situation. Policymakers, educators, and industry stakeholders must work together to keep TVET responsive, future-focused, and socially beneficial.

2.5 Employment and Employability

2.5.1 Relation to labour market outcomes

Teachers, legislators, and researchers have long sought to determine how TVET influences employment outcomes. TVET boosts economic growth and workforce development by teaching job-ready skills. By increasing graduate employment, TVET significantly impacts labour market outcomes. TVET programs that align with industrial needs enhance employability. One study by Muehlemann and Wolter (2014) showed that apprenticeship-based TVET systems in Switzerland were better at getting people jobs than general education paths. These results show that TVET graduates are more likely to get jobs when they combine theoretical knowledge with hands-on experience in the workplace.

Vocational training not only increases the number of jobs available, but it also raises income and efficiency. Psacharopoulos and Patrinos (2004) explain that trade graduates in technical fields often make more money than their general education peers. This shows that hands-on skills are valued in the job market. The fact that technical education pays off financially also shows how important it is for social justice and economic growth.

Even with these benefits, the ongoing gap between the skills and demands of TVET graduates in the job market is still a worldwide issue that needs to be addressed. A new study (Sei & Challay, 2025) shows that this gap makes it common for graduates to be underemployed or unemployed. To fix this, training schools, the government, and business partners need to work together to make sure that the program is flexible and useful (Kana & Letaba, 2024).

TVET also holds promise for reducing income inequality and promoting social mobility by creating accessible skills pathways for underserved populations, including rural and low-

income communities. According to Mabutha (2024), inclusive TVET programs that embed entrepreneurial training can enable individuals to generate income independently, particularly in economies where formal employment is scarce. In this way, TVET not only contributes to workforce readiness but also to poverty alleviation and broader economic participation.

2.5.2 Employability

Soft skills, also called transferable skills, help TVET graduates get jobs. Schools and companies are realising that communicating, solving problems, working as a team, and being flexible are important skills in acquiring a job. Bridgstock (2009) explains that adding employability skills to TVET courses makes it easier for individuals to get work and make progress in their careers. Technical skills are still important. In 2016, the World Economic Forum said that individuals who know how to work with others, talk to people, use technology, and be open were in higher demand.

There is no easy way for TVET training to teach and test job skills. According to Lucas *et al*. (2012), students need to be involved in their learning, think critically, and perform with care to learn these skills. Employability skills are important, but Bridgstock (2009) explains that many TVET schools do not teach them all since they do not have the resources or training facilities to do so. It is difficult to test skills that are not technical.

2.5.3 Discrepancies between skills and labour market needs

The effectiveness and relevance of TVET programs depend on their alignment with the needs of the labour market. In most cases, graduates' employability and career opportunities are significantly impacted by the fact that their TVET skills do not align with employer capabilities. The economy, shifting business practices, and technological advancements all contribute to this skills gap. Winch (2013) investigated the issue of updating technical and vocational education programs to meet the demands of a dynamic labour market. According to Kana and Letaba (2024), the lack of tangible employer engagement in developing and implementing TVET programs exacerbates the situation.

Job opportunities may be scarce for recent graduates whose skill sets are misaligned with industry needs. Skills gaps reduce job satisfaction, harm the economy, and negatively affect human resources (Yusvana, 2024). To make vocational education and training more market-sensitive, it is imperative that TVET institutions, employers, the government, and other relevant parties tackle these concerns.

These results show that graduates are more likely to get jobs after completing TVET programs that focus on building work skills and are aligned with industry needs. To accomplish this, it is necessary to improve teaching methods, forge stronger ties with businesses, and create programs that can adjust to changes in technology and the economy. To better equip their students for the workforce and contribute to economic growth, TVET institutions such as Letaba TVET College must implement these tactics.

2.6 Student Expectations and Experiences

2.6.1 Student motivation for enrolment

Many students choose TVET courses for personal, social, and economic reasons, including the chance to learn practical skills for the labour market. Kana and Letaba (2024) report that students are enrolling in TVET programs that prepare them for the 4IR. Countries with effective TVET systems respect the direct link between vocational education and career routes, highlighting the pragmatic significance of TVET.

TVET is inclusive, particularly for students who struggle in conventional academic settings. It improves access, equality, and social mobility for various learners, especially disadvantaged and academically challenged ones (Mabutha, 2024). This dimension of inclusivity is central to the developmental goals of South Africa's post-school education sector.

Moreover, TVET programs attract students seeking personal growth and specialised technical capabilities. Pharamela and Singh-Pillay (2025) highlight the role of intrinsic motivation, where students enrol in vocational programs due to genuine interest in a career field and a desire to master practical competencies. This internal drive fosters commitment to skills development and long-term career progression.

2.6.2 Satisfaction and perceived value

The relevance, effectiveness, and responsiveness of a program to learner requirements depend on student satisfaction and TVET value. Satisfaction depends on instruction quality, learning resources, curriculum relevancy, and career goals. Kana and Letaba (2024) note that TVET curricula that incorporate future-focused skills and meet the objectives of the 4IR boost students' self-esteem. Students are more likely to value and empower their education when they can relate it to real-world jobs.

However, program quality and student expectations can affect satisfaction. Dlamini (2020) adds that TVET institution branding and public perception might impact learner expectations and how they rate their education. Outdated equipment, limited industry exposure, or insensitive program design might lower the perceived value of vocational education. Infrastructure development, including modern workshops and digital platforms, is crucial to ensure learners receive high-quality training that prepares them for work (Ralushai, 2021).

Recently published research suggests that student satisfaction is closely linked to perceived educational return on investment. Global study trends show that students increasingly evaluate TVET programs for employability, upward mobility, and long-term career viability (Sei & Challay, 2025). Training related to structured job placements, internships, and mentorships boosts satisfaction in South Africa. Experiential learning, contextualised pedagogy, and academic support systems influence how students evaluate their education, according to Mbeki (2023).

TVET programs must be flexible, practical, and innovative to improve student satisfaction and value. Vocational training must be industry-aligned, technologically advanced, and socially empowering to attract and retain students, especially those from underprivileged backgrounds seeking socio-economic elevation through skills development.

2.7 Skills Development and Student Aspirations

2.7.1 Experiential learning and internships

By integrating job demands and hands-on learning into TVET programs, employers can find students more easily and help them learn skills that are useful on the job. Through limited job experience, students can learn all about the business and how to do well in it. This helps them move from classroom theory to real-world practice. According to Kana and Letaba (2024), students can be better prepared for the 4IR if they learn by doing. This way of learning helps with both basic skills and being able to change. By putting school lessons in the setting of the real world of work, these programs make learning more interesting for students.

Students can try out different career routes, build their professional personalities, and learn about the cultures of different jobs through internships. Sei and Challay (2025) state that global trends in TVET education stress the value of jobs as ways to improve both technical and soft skills, such as conversation, critical thinking, and working as a team. In South Africa, work-integrated learning (WIL) has become a major policy goal to shorten the time it takes to go

from school to job. According to Dlamini (2020), internships that are well-aligned with students' future goals make it much easier for them to find jobs after college and make students happier with their training programs.

That being said, work-based learning only works if the jobs are good, well-organised, and useful. Experiential education can be less useful if jobs are not well organised, there is not enough industry management, or there are no clear learning goals. Mbeki (2023) explains that internships might not change things if they are not carefully planned and actively supported by institutions. Ralushai (2021) also says that for actual training to work, there needs to be a strong relationship between TVET schools and people in the business, especially when resources and facilities are invested. For Letaba TVET College, making these kinds of relationships is important to make sure that students learn in a way that is relevant, goal-driven, and helpful.

Internships and hands-on learning are essential for connecting TVET with the needs of the job market and getting students ready for fast-paced workplaces. By putting money into organised, well-supported work-based learning opportunities, schools such as Letaba TVET College can make their graduates more employable and career-ready. They can also make trade training programs seem more relevant and improve their quality.

2.7.2 Skills adequacy for future careers

The long-term usefulness of TVET programs depends on assessing skills acquisition. Students' views of skill usefulness reveal training relevance and efficacy. When students are sure that their abilities match labour market expectations, they are more optimistic and ambitious about their careers. Kana and Letaba (2024) highlight that TVET future-readiness should incorporate conventional occupational competences with 4IR-aligned digital and entrepreneurial capabilities. This holistic method boosts student confidence, flexibility, and employability.

However, recent surveys show that many students worry about their talents being relevant to the employment market. Pharamela and Singh-Pillay (2025) revealed that KwaZulu-Natal TVET students lacked 21st-century skills, including digital fluency and entrepreneurial thinking. Ramaoka (2024) found that Limpopo TVET students were dissatisfied with curriculum alignment, noting a mismatch between classroom and job expectations. These results suggest reassessing curriculum content and delivery in light of technology and industrial developments.

Curriculum responsiveness is necessary to bridge education and employment. When their studies match real-world job paths, Dlamini (2020) claims that students' happiness and

confidence in their training increase. Industry-collaborated curriculum design gives students basic knowledge and future abilities. Odiyo *et al*. (2022) state that sustainability and green economy skills are increasingly important for learners to stay competitive in environmentally transformed industries.

To stay relevant and at a high-quality level, TVET colleges such as Letaba TVET College must engage students, companies, and policymakers in feedback loops. Doing so will match training programs with current and upcoming skills needs, preparing graduates for employment, innovation, and career advancement in a changing global economy.

2.8 Challenges in Skills Development at Letaba TVET College, Maake Campus

Like many other public TVET colleges in South Africa, Letaba TVET College, Maake Campus has a number of structural problems that make it harder for students to learn new skills. Some of these are not having enough training materials, not having enough facilities, and not matching the program to the needs of the job market. Kana and Letaba (2024) explain that many South African TVET schools have trouble keeping their training tools up to date, which makes it harder for students to learn skills that are needed in the 4IR. At Maake Campus, students may not have readily access to modern tools that are used in the business, which can make it harder to learn both real and digital skills.

In addition, teachers often have problems with keeping their skills and material up to date. Pharamela and Singh-Pillay (2025) stress that many TVET teachers need to keep learning new things to provide useful, future-focused lessons. Without ongoing professional development, teachers may not be able to keep their lessons up to date with new tools and teaching methods in the field.

These problems are made even worse by limited budgets. Ye *et al.* (2024) mention that the TVET sector's lack of funds makes it harder for students to get new technology and for courses to grow. When it comes to rural schools such as Letaba's Maake Campus, where financial and technological differences make learning less fair, this is especially clear. It is hard to digitise learning and create mixed learning settings since there is not enough Internet infrastructure and smart classes.

In addition, classroom flexibility is a very important issue. Sei and Challay (2025) found that TVET schools often fall behind what employers want, which makes it harder for graduates to find work. It is harder to make sure that courses are relevant to the local economy and industry

needs when there are not many industry links on campus (Yusvana, 2022). To close this gap and make TVET programs more marketable, Yusvana (2022) suggests smart public-private partnerships.

Equal rights and acceptance problems have also surfaced as challenges in skills development. According to Mabutha (2024), students from low-income families or who are not very good at school also have a harder time succeeding in TVET classes. Students who are fragile are more likely to be affected by old infrastructure, a lack of student support services, and limited teaching freedom in schools with few resources.

To improve the results of skills development at Letaba TVET College, a number of different approaches are needed. Some of these are focused investments in infrastructure, better training programs for teachers, reworking the curriculum based on feedback from the business world, and strong relationships between businesses. It is important for the Maake Campus and other schools in South Africa that want to improve student skills and support fair economic growth to deal with these problems.

2.8.1 Institutional responses and adaptations

Since skills development is complex, Letaba TVET College uses creative methods to provide high-quality technical education that fulfils student and labour market needs. The major approach has been to connect the curriculum with industrial competence. Corporate partnerships have allowed collaborative curriculum reviews to keep course material relevant and job-oriented. These collaborations enable work-based learning, letting students apply their knowledge in real life (Kana & Letaba, 2024).

Institutions have invested in ongoing professional development since instructors shape learning outcomes. To keep education current and successful, faculty are educated in new technology, pedagogical methods, and industrial advances. Faculty upskilling is key to improving TVET legitimacy and narrowing the gap between teaching and industry practice, according to Dlamini (2020). Meanwhile, technological integration has accelerated. TVET colleges are employing e-learning platforms and digital resources to improve education and provide students with modern-economy digital skills.

To promote student retention and achievement, universities have strengthened academic assistance. Career assistance, academic mentoring, and psychological support help students overcome learning problems and choose careers (Mbeki, 2023). To overcome resource

constraints, institutions such as Letaba have tried inventive funding. Corporate sponsorships, donor funding, and public-private partnerships have enabled infrastructure development, contemporary training equipment procurement, and student support service growth (Odiyo *et al.*, 2022).

Letaba TVET College's institutional practices demonstrate its proactive approach to skills development. The college provides responsive vocational education via curriculum relevance, teacher development, technology adoption, student assistance, and financial innovation. These initiatives must be evaluated and updated to meet education and labour market needs.

2.9 Enhancing Skills Development

2.9.1 Teaching and technology integration

Innovative teaching methods and digital tools used in TVET classes help students learn more and get ready for the needs of a workplace that is changing quickly. Problem-based learning and project-based learning are two methods that are being used more and more to help students think critically, solve problems in real life, and learn from their own experiences. Kana and Letaba (2024) state that these kinds of changes need to be incorporated into teaching to develop 21st-century skills that are in line with the 4IR.

Simulation tools and virtual reality are two examples of new technologies that are becoming useful in job training. These tools make simulated professional and real-life settings so that students can get hands-on experience in a safe environment. Digital models work especially well for skill-based learning, where students need to have hands-on experience to remember what they have learnt and be ready for the workplace (Sei & Challay, 2025). When these tools are used in a way that is related to the educational goals, they get students more involved and help bridge the gap between theory and practice.

E-learning systems also provide students with a variety of adaptable ways to access information, which lets them learn at their own pace and in a way that fits their unique learning styles. According to Mbeki (2023), digital tools help with varied learning and meeting different students' needs, especially in big TVET schools that do not have a lot of resources. The popularity of mixed learning models supports hybrid teaching formats even more. These formats combine traditional classroom contact with online delivery to make learning more effective.

To stay competitive and useful, TVET schools need to put money into both new ways of teaching and new technology. This includes giving teachers ongoing training in digital education, making sure students have access to stable Internet, and teaching students how to use technology well. Odiyo *et al.* (2022) explain that giving students digital and green economy skills is important for long-term career growth in a job market that is driven by technology and cares about the environment.

2.9.2 Industry partnerships

TVET institutions must work with local companies, employers' groups, and sector education and training agencies to meet labour market needs. Partnerships link curricula with real-world requirements and guarantee that training programs meet technical and vocational standards. Kana and Letaba (2024) state that industry engagement is necessary to integrate 4IR competences into TVET curricula and promote innovation responsiveness in universities.

Effective industry relationships enable WIL, apprenticeships, and job placements beyond curriculum input. These practical learning experiences are essential for theory-practice integration. According to Pharamela and Singh-Pillay (2025), industrial experience improves students' technical and soft skills, workplace adaptability, and employability. Collaboration boosts student confidence and relevancy in a competitive job market.

Additionally, partnerships can address the mismatch between skills supply and demand by enabling real-time feedback mechanisms between employers and institutions. Sei and Challay (2025) highlight that many TVET colleges struggle with outdated training programs due to weak or ad hoc relationships with employers. Formalised and sustained partnerships, however, allow institutions to remain agile, revise modules quickly, and train students in emerging fields such as renewable energy, digital services, and advanced manufacturing.

Moreover, industry-linked programs are shown to improve student transition into the workforce and reduce graduate unemployment. According to Yusvana (2024), industry participation in program design, assessment, and mentorship initiatives leads to a more efficient skills pipeline and ensures that vocational graduates are job-ready from the outset.

To maximise these benefits, TVET institutions such as Letaba TVET College must institutionalise frameworks that promote ongoing dialogue with employers, expand public-private partnerships, and develop responsive teaching models. Industry collaboration should not be episodic but an integral and continuous component of program development and evaluation.

2.9.3 Policy recommendations and best practices

For TVET programs to work well and last, strong policies based on evidence must be made and followed. Literature shows that policy structures should not only provide methods for school approval and quality verification but also encourage innovation, response, and diversity (Kana & Letaba, 2024). New studies show that one important best practice is to include adaptable policy rules that let TVET programs change to keep up with changes in technology and the needs of the job market.

Inclusion is another important part of making good policy. According to Yusvana (2024), to ensure that TVET enhances social justice and economic mobility, policies that make it easier for low-income and disadvantaged groups to get enrolled, such as fee waivers, focused recruitment, and student support systems, must be in place. This fits with South Africa's larger growth goals set out in the White Paper for Post-School Education and Training, which urges more individuals to get professional training and make it better.

Engaging with industry has also been highlighted as best practice. According to Mabutha (2024), policies that make relationships between TVET schools and business leaders official can make the curriculum more relevant, offer more work-based learning opportunities, and make graduates more employable. Pharamela and Singh-Pillay (2025) also discuss how important it is to include economic education in policy as a way to help young people who are unemployed and encourage them to start their own businesses.

Much research has been conducted on the importance of involving not only government offices in planning but also teachers, students, neighbourhoods, and individuals in the business sector. Ye et al. (2024) argue that policy adaptability is important in a global economy that is always changing and needs to be evaluated and changed based on feedback from institutions and industry players.

Adopting global best practices, such as investing in digital infrastructure, making sure staff are always learning new skills, and making sure courses are relevant to local industries, could greatly improve the results of training at Letaba TVET College and other similar schools. Recent research (Odiyo *et al.*, 2022) has found a link between clear policy frameworks and better student results and job market integration. These suggestions are in line with that research.

2.10 Conclusion

The Maake Campus of Letaba TVET College is an example of how skills development and TVET system goals are linked in the literature. Aligning curriculum with business needs, introducing technology into the classroom, and forming significant industrial collaborations are emerging answers to difficulties. The chapter stressed that governmental support and stakeholder interaction are essential for high-quality and relevant TVET programs. To keep TVET relevant to societal needs and the labour market, instructional techniques, curriculum design, and cooperation structures are reviewed and adjusted. This literature study laid the groundwork for discussing and investigating methods to improve TVET results to better prepare students for the workforce and boost the economy. Thus, collaborative and adaptable TVET skills development is vital for solving contemporary and future issues. This chapter performed a methodical literature review of the key results and implications of TVET research and practice.

CHAPTER 3:
RESEARCH APPROACH AND DESIGN

3.1 Introduction

This chapter discusses the plan and method of the study, which investigated how skills are developed at Letaba TVET College, Maake Campus. The study looked at how individuals' ideas and experiences in real life, as well as how institutions work, affect how well technical education and training works. For this study, a qualitative research method was chosen since it creates an understanding of social situations through the words and stories of people who are directly involved in the subject being studied. The first part of the chapter presents the main research method and intellectual ideas that the study is based on. It then goes into specifics about the case study methodology that was used to conduct the research. The selection techniques used to identify participants are discussed, along with the data gathering methods, which were semi-structured interviews and document analysis. To show how meaning was made from the qualitative data, the steps employed in data analysis, particularly thematic analysis, are laid out.

To make sure the study is honest and believable, the chapter also presents discussions on research ethics, trustworthiness, and scientific rigour. The research setting, the researcher's job, and the research design's limits are also considered. This chapter offers a complete picture of how the study was planned, carried out, and verified to make sure it met its stated goals.

3.2 Research Design

The skills development program at Letaba TVET College, Maake Campus was examined using a qualitative case study. The case study allows for an in-depth analysis of phenomena in their real-life situations, particularly when phenomenon and context borders are unclear (Yin, 2014). Stake (1995) adds that case studies are useful for investigating lived experiences since they provide deep insight of a group, program, or organisation. To contextualise how Letaba TVET College students see the sufficiency, relevance, and effectiveness of their skills development program, this research design was adopted.

South Africa has 50 public TVET institutions under the Department of Higher Education and Training, including Letaba TVET College. This includes numerous campuses in Limpopo province's Mopani District, including the semi-rural Maake Campus near Lenyenye. The Maake Campus serves urban and rural students with engineering, business studies, and information technology disciplines. Students from low-income families see vocational education as a road to work and economic mobility. A typical rural TVET college, the campus has inadequate infrastructure, outmoded training equipment, and few industrial links (Kana & Letaba, 2024).

Maake Campus was chosen as the case study due to its distinctive socio-economic backdrop and key role in extending post-school education in underprivileged populations. The study used this scenario to provide detailed insights into how local restrictions and opportunities affect students' skills development.

The "case" in this research includes Letaba TVET College's Maake Campus students and their experiences. Semi-structured interviews were used to gather comprehensive narratives about skills development, job preparedness, and institutional responsiveness in this environment.

3.3 Research Approach

This study employed a qualitative research approach. Since qualitative research naturally can go into great detail about social events, I was able to take an in-depth look at how students dealt with skills development. Qualitative research lets the researcher dig deeper into difficult events to try to understand individuals' perspectives about certain matters (Denzin & Lincoln, 2011). Individual semi-structured interviews with participants were the main data collection tool. I wanted to collect a lot of detailed, first-hand information that accurately showed how students at Letaba TVET College perceived things and what they experienced.

3.4 Data Collection Strategy

This research used semi-structured interviews and document analysis to collect data, using a qualitative approach. Triangulation was used to improve the depth, credibility, and context of the results. Both methods provided complimentary insights into Letaba TVET College, Maake Campus's skills development environment.

The main data collection instrument was semi-structured interviews. These interviews allowed freedom within a guided question framework to explore participants' life experiences and

viewpoints (Drever, 1995). This strategy permits spontaneous and emerging concerns to be discussed, which may enrich narratives (Brinkmann, 2018). According to DiCicco-Bloom and Crabtree (2006), semi-structured interviews allow open-ended discourse with preset questions. The interview guide (Appendix A) covered skills development perspectives, curricular relevance, lecturer knowledge, and job preparedness. This allowed me to gain campus-specific information.

To triangulate data and verify themes, document analysis was done alongside interviews. Letaba TVET College institutional policy papers, program outlines, curriculum guides, annual reports, and internal skills audit summaries were analysed. These materials were chosen since they showed the official position on skills development, curriculum design, and institutional difficulties. Document analysis lets the researcher compare institutional discourse with student experiences. This strategy helped contextualise how institutional planning frameworks, national TVET policy documents, and program design choices affected student experience.

The research compared institutional aims to student results and experiences using interviews and document analysis. Methodological triangulation strengthened the results and provided a fuller, more nuanced interpretation of the data.

3.4.1 Data collection through semi-structured interviews

A basic tool in qualitative research is the semi-structured interview, which can be used to obtain data on a range of complicated situations and points of view (Galletta & Cross, 2013). To gain a better understanding of how students at Letaba TVET College, Maake Campus feel about skills development, semi-structured interviews were used in this study. The interview process involved the following steps:

- **Interview preparation:** Prior to data collection, a detailed interview guide was developed (Appendix A), grounded in the research objectives and the theoretical framework of the study. The guide consisted of open-ended questions aimed at eliciting rich, narrative responses related to students' skills development pathways, lecturer perspectives, curriculum relevance, and alignment with workplace expectations (Roulston, 2010).
- **Sampling and participant selection:** Purposive sampling was employed to select participants who could offer diverse and meaningful insights aligned with the objectives of the study. This approach ensured the inclusion of students with varying academic and socio-economic backgrounds, thereby maximising data richness and relevance.

- **Conducting the interviews:** Interviews were conducted in a neutral and quiet environment conducive to open communication. Each session lasted approximately 45 to 60 minutes. In line with Rubin and Rubin (2011), rapport-building strategies were used, including starting with non-sensitive questions before transitioning into the core topics of the research.
- **Recording and transcription:** All interviews were audio-recorded with participants' informed consent. Audio recordings were transcribed verbatim to ensure accuracy and facilitate rigorous thematic analysis. As noted by Bryman (2015), this method enhances the credibility of qualitative findings by preserving the authenticity of participant narratives.

3.4.2 Sample selection

In qualitative investigations, where the aim is to generate detailed, context-rich descriptions of human experience, the sampling process plays a crucial role in the research design. Sampling strategies are generally categorised into two broad approaches: probability and non-probability sampling. Probability sampling, used in quantitative research, gives each population member an equal probability of selection. Non-probability sampling picks individuals depending on their relevance to the study issue (Denscombe, 2014). This research was interpretative and exploratory; therefore, non-probability sampling was best suited.

I used a non-probability sampling method called purposeful sampling to select individuals with significant and insightful ideas. Purposive sampling works well when researchers want specific viewpoints from individuals who have personally encountered the topic under study, according to Neuman (2013). Participants were Letaba TVET College Maake Campus engineering or business studies students who graduated between 2020 and 2023. These individuals were chosen since they had undergone full program cycles and were in a position to critically assess the adequacy and impact of their skills development experiences. The inclusion criteria therefore required the participants to: (1) have completed a full qualification at Maake Campus; (2) have graduated between 2020 and 2023; and (3) be willing to participate in an in-depth interview. Exclusion criteria ruled out current students or those who had withdrawn before completion.

To ensure the trustworthiness of the data, the principle of data saturation was used to guide ,e on the number of participants required. Saturation refers to the point at which no new information or themes are observed in the data (Fusch & Ness, 2015). Based on this principle,

a total of 12 participants were interviewed. This sample size is supported by Guest, Bunce, and Johnson (2006), who found that saturation in qualitative studies often occurs within the first 12 interviews when the participants are relatively homogeneous in relation to the phenomenon being studied. Therefore, the selected sample size was deemed adequate to capture a wide range of perspectives without redundancy, thereby enhancing the credibility and depth of the study findings.

3.4.3 Justification for purposive sampling

Purposive sampling was selected in this study to ensure the inclusion of participants with direct and relevant experience regarding skills development in the Letaba TVET College, Maake Campus setting. Purposive sampling is very helpful in qualitative research when the aim is to obtain deep, context-rich data from individuals who know a lot about or are directly involved with the topic being studied. Etikan *et al.* (2016) explain that purposeful sampling lets researchers choose individuals who can best help them reach their study goals through their knowledge and experience.

This method of selecting participants worked especially well for the case study design, which required deep insight into how students experienced and thought about the processes of skills development. By choosing individuals who had finished their training at Letaba TVET College between 2020 and 2023, the study ensured that those who participated could think critically about how successful the program was, how much training they received, and how relevant their skills were to the job market. This made it possible to collect a great deal of interesting personal data and helped connect the academic discussion with what students actually experienced.

Purposive sampling also made it easier to use resources efficiently. Instead of focusing on a large group of people, the study worked on a small group who were thought to be most likely to provide important and thorough reports. According to Palinkas *et al*. (2015), purposeful sampling works best in application research, where the goal is to understand processes and results from the point of view of those who are most involved. This method therefore provided for a more in-depth analysis and yielded results more relevant to the situation.

3.5 Measurement Map and Data Analysis

Setting up a clear measuring plan is an important part of any research project since it guides the study and ensures clarity and accuracy. By measuring constructs properly, the researcher can

ensure that the data obtained are relevant to the study's aim and can be used for useful data analysis.

3.5.1 Constructs and measurement

This study focused on three key constructs: skills development outcomes, graduate employability, and graduate satisfaction. Each construct was explored through qualitative methods, particularly semi-structured interviews supported by institutional documentation where applicable. This approach aligns with the interpretivist paradigm guiding the study, which prioritises depth of understanding over quantification.

The first construct, skills development outcomes, aimed to evaluate the perceived effectiveness of the training and learning processes at Letaba TVET College, Maake Campus. Participants were asked to reflect on the relevance, depth, and applicability of the skills they had acquired during their vocational programs. The interviews explored participants' perceptions regarding both technical and soft skills, and how these contributed to their preparedness for the labour market or entrepreneurial ventures (Kana & Letaba, 2024).

The second construct was graduate employability. Rather than measuring employment rates numerically, this construct was assessed through participants' narratives regarding their transition from training to work. Questions explored whether graduates were employed, self-employed, or still seeking work and how they saw the relationship between training and job results. Institutional follow-up data, where available, provided context for post-training trajectories (Jahonga, Ngala, & Musera, 2024).

Semi-structured interviews developed from recent TVET satisfaction studies examined graduate satisfaction, the third construct. Participants evaluated the program's relevancy, quality, assistance, and career advice. These findings provided a comprehensive view of how graduates rate their TVET experiences in connection with their present jobs or entrepreneurial ventures (Paulus, Garcia Villegas, & Howze-Owens, 2020). This construct-driven, qualitative assessment methodology provided a thorough, context-sensitive examination of Letaba TVET College students' skills development results and perceptions.

3.5.2 Data analysis

Thematic analysis was employed to determine the meaning of the data since this study was qualitative and mostly based on semi-structured interviews. The six-step framework for

thematic analysis by Braun and Clarke (2006) was used to determine trends in the data in a methodical and thorough way.

- Familiarisation with the data: In this initial stage, all interview recordings were transcribed verbatim. I then engaged in repeated readings of the transcripts to immerse myself in the content and begin identifying preliminary insights.
- Generating initial codes: During this phase, significant segments of text were highlighted and coded to represent key ideas, actions, or sentiments expressed by participants.
- Searching for themes: Codes were grouped into broader conceptual categories or potential themes that captured common patterns across the dataset.
- Reviewing themes: A two-level process was used to assess the validity of each theme in relation to both the coded data extracts and the entire dataset. This ensured that each theme accurately reflected participant experiences.
- Defining and naming themes: In this stage, each theme was clearly defined and refined to capture its core meaning. Descriptive labels were assigned to ensure clarity and coherence.
- Producing the report: The final phase involved synthesising the themes into a structured narrative that addresses the research objectives. The report integrates participant interview excerpts and analytical commentary to illuminate key findings.

Thematic analysis revealed deep, nuanced insights into Letaba TVET College, Maake Campus students' skills development experiences. According to Braun and Clarke (2006), this technique is ideal for social meaning investigations. This analytical approach ensures methodological integrity and puts participants' voices first.

This study adhered to Lincoln and Guba's (1985) trustworthiness concept, which includes credibility, transferability, dependability, and confirmability. Each stage was methodical to guarantee data-driven and theoretically informed conclusions.

3.5.2.1 *Primary data analysis*

The raw data from the semi-structured interviews were analysed using thematic analysis. Braun and Clarke (2006) provide an orderly plan for thematic analysis to make sure all data are investigated. By coding the interview data more than once, themes that best describe the students' time at Letaba TVET College could be identified. This helped me to understand the

subtleties of each student's skill-building journey as well as their individual experiences and point of view. Qualitative observations and first-hand experiences provide a fuller picture of how individuals learn skills and get ready for work than formal methods.

3.5.2.2 *Secondary data analysis*

Content analysis of Letaba TVET College, Maake Campus institutional documents relevant to skills development was used for secondary data analysis. This included curriculum guidelines, assessment rubrics, National Certificate (Vocational) levels 2–4 course syllabi, student performance reports from 2021 to 2023, and internal review reports on curriculum alignment and employer input. Formal approval from the college's academic registrar allowed digital and hard-copy access to departmental records and policy files related to the study goals.

Content analysis assisted in examining how the institution conceptualised and executed its skills development mission. Erlingsson and Brysiewicz (2017) recommend content analysis in qualitative research to find patterns and themes in textual material and make reliable, contextually grounded judgements. This strategy was used to extract key indications from documents, such as employability skills, job preparedness, digital competency integration, and assessment alignment with practical results.

Document analysis was also necessary to triangulate semi-structured interview data. It was used to assess how well training modules and quality assurance procedures fit students' lives. The institutional perspective provided by triangulation helped analyse participant narratives and uncover policy-practice gaps.

3.6 Research Ethics

Academic research, especially with human participation, requires ethical integrity. This Letaba TVET College, Maake Campus study on TVET students' skills improvement followed ethical guidelines to protect participants' rights, ensure transparency, and maintain report credibility. Research ethics were observed from participant recruitment to data analysis and reporting. The University of the Free State (UFS) granted ethical clearance for the study (Appendix C), as required by institutional standards. In addition, Letaba TVET College management also granted approval for the research to be conducted (Appendix D). These approvals confirm the study's authenticity and procedures undertaken.

The study's aim was explained to participants. In addition, the informed consent form explained the study's goals, data collection techniques, risks and benefits, and that participation is voluntary. Participants were informed that they could leave at any time without penalty. After a comprehensive verbal explanation, participants signed a written consent form (Smith & McGannon, 2018; also see Appendix B). In the reporting of results, all identifiable information was deleted or anonymised to maintain participant confidentiality. Participants were given pseudonyms to protect their personal information. Data were maintained securely on password-protected devices, with limited researcher access, adhering to data protection guidelines (Gray, 2017). The research aimed to minimise physical, psychological, and emotional harm to participants. Participants were advised that they could withdraw from the interviews if they felt uncomfortable. The verification process included member-checking to confirm data accuracy and authenticity. Participants were allowed to examine and edit their interview transcripts before analysis. This stage established the study's credibility and respected participant input (Lincoln & Guba, 1985).

No deception was utilised in this research. To help participants decide whether to participate, the purpose, procedures, and expectations were explained from the start (Resnik, 2015). The study acknowledged participants' linguistic, social, and economic variety with cultural sensitivity. These distinctions were considered in all questions and exchanges (Smith, 2008).

Finally, data analysis was done with care to preserve data integrity. No attempt was made to manipulate, conceal, or distort unexpected facts. Ioannidis (2012) stresses that research must be honest and rigorous even when findings challenge assumptions. Respect for participants' dignity, autonomy, and welfare underpinned this study's ethics. This research responsibly contributes to TVET skills development in South Africa by following protocols and ethical norms.

3.7 Limitations

Academic research gains credibility through transparency, particularly when it openly acknowledges its limitations. One of the primary limitations of this study was its narrow scope, with an exclusive focus on Letaba TVET College's Maake Campus. This allowed for a look into the workings of a certain institution and the experiences of its students in more depth, but it means that the results could not be applied to other TVET institutions or areas. Denzin and Lincoln (2011) explain that a single-case qualitative study can provide a lot of useful information, but it might not fully show the larger systemic patterns in the sector as a whole.

Another major problem is that only semi-structured interviews and document analysis were used to collect qualitative data. Qualitative methods offer deep, situation-specific information, but they also require the researcher to make assumptions. The answers of the participants may have been biased if they wanted to appear favourable in front of others or did not want to share their negative opinions (Maxwell, 2012). Also, qualitative research tends to value depth over width, focusing on in-depth interactions with a smaller group of subjects over data generalisations about a larger community.

Several methods were used to make up for these issues. The results were carefully put into context to show the true situation at the Maake Campus and not to generalise about the TVET sector as a whole. Also, correlation was used to boost the reliability of the study. The study used different data sources, such as institutional records and individual narratives, to make the results more reliable. This lowers the risk of single-source bias (Carter *et al*., 2014). In the end, being aware of these flaws helps make the analysis of the study results more thorough and reliable.

CHAPTER 4:
DATA ANALYSIS AND DISCUSSION

4.1 Introduction

As stated in Chapter 2, TVET improves student employability by teaching students labour market-relevant theory and skills. TVET institutions must now teach academic, digital, and vocational skills to meet industry needs and rapid technological development. In a constantly changing work environment, Pharamela and Singh-Pillay (2025) argue that TVET courses must include 21st-century skills to improve students' flexibility and career success. International data also show that systematic work-based exposure (WBE) improves the transition from school to employment by bridging theoretical and practical learning.

Letaba TVET College, Maake Campus offers skills-development programs in civil engineering, electrical engineering, transport, and logistics. However, the implementation of these components presents several challenges, including limited training infrastructure, inadequate learning resources, and inconsistent collaboration with industry. While Patel and Rushe (2020) explore vocational skills development in emerging economies broadly, their conclusions affirm that institutional-industry partnerships and resourced learning environments are foundational to effective vocational systems. Within this study's context, WBE is considered a central mechanism for aligning classroom learning with real-world work environments.

This chapter presents a thematic analysis of graduate perspectives on the effectiveness of the training programs, instructional methodologies, and institutional support mechanisms. Themes are directly aligned with the research objectives, as illustrated in Table 4.1. Importantly, a detailed summary of participant profiles is provided in Section 4.2 to present information on the backgrounds of the 12 graduates involved in the study. All participants had completed their respective programs at Letaba TVET College and reflected retrospectively on their learning experiences, as captured in Appendix A.

In addition to interview data, this chapter incorporates insights from document analysis—specifically curriculum plans, assessment frameworks, and institutional development reports—which support the triangulation of findings and allow for a broader interpretation of institutional practices.

Table 4.1 Summary of the themes and sub-themes

Research objective	Major theme	Sub-themes
To identify factors that manifest in issues affecting students of Letaba TVET College, Maake Campus on skills development	1. Challenges affecting students' skills development	1.1 Resource limitations 1.2 Curriculum misalignment 1.3 External factors impacting institutions
To assess students' expectations and experiences of skills development at Letaba TVET College, Maake Campus	2. Students' expectations and experiences	2.1 Practical exposure expectations 2.2 Work-based exposure programs 2.3 Job preparedness expectations
To study the impact of skills development on the aspirations of students at Letaba TVET College, Maake Campus	3. Impact of skills development on students' aspirations	3.1 Influence of hands-on training 3.2 Entrepreneurship aspirations 3.3 Confidence in entering the job market 3.4 Long-term career development 3.5 The role of skills in society
To explore students' experiences of acquiring skills development at Letaba TVET College, Maake Campus	4. Students' experiences of acquiring skills development	4.1 Positive practical training experiences 4.2 External support and partnerships 4.3 Barriers to learning due to limited exposure 4.4 Opportunities to apply skills in personal businesses

4.2 Theme 1: Challenges Affecting Students' Skills Development

4.2.1 Sub-theme 1.1: Resource limitations

Participants were concerned with resource limitations preventing technical and vocational skills learning. Participants complained about a lack of welding electrodes and electrical equipment for practical instruction. They mentioned that these shortages inhibit their learning and make it harder to practise and master skills. Participant 1 noted: "*We want to use electrodes; there is often a shortage since there were too many students in the workshop.*" Participant 4 also explained: "*Without the right equipment, it's hard to practise what we are taught in class.*" Due to a shortage of well-equipped labs and workshops, students must focus on theory rather than practice. Overreliance on theory diminishes their ability to apply what they have learned in real-world situations, especially in engineering, where hands-on experience is crucial.

Many participants complained about overcrowded and underequipped sessions. Participant 5 remarked: "*no laboratory, library; too much theory than practical work and workshops*," while Participant 2 noted: "*some of the tools we need are not there, and it delays our learning*." Such recurring issues suggest that resource constraints leave students unprepared for employment. Technical and vocational education emphasises hands-on learning with industry tools and technologies. Limited tools force students to share, delaying practical exercises and learning opportunities. This disconnects classroom theory from job market skills, lowering student employability.

This analysis validates the issue of resource limitations as seen in earlier research. The lack of resources and equipment in vocational education affects work preparedness. Rudhumbu (2021) and Sibiya (2024) provide evidence that TVET graduates in Botswana and South Africa face resource shortages, crowded workshops, and limited practical facilities. Issues affect individual learning and the ability of TVET institutions to create skilled graduates. McGrath and Yamada (2023) recommend smart infrastructure and resource efficiency to address these issues. Prioritising these improvements allows institutions to train students for competitive employment markets.

These findings show that Letaba TVET College and similar institutions need resources and infrastructure. Addressing resource constraints will improve practical training, student satisfaction, and performance. Without resources, students struggle to practise and become competent professionals in vocational education, which revolves around practical skills. Participants' experiences reveal that resource constraints hinder technical and vocational training as well as operations. The lack of equipment, packed facilities, and restricted practical opportunities hinder students' capacity to apply theoretical knowledge to hands-on skills, affecting their workforce readiness.

4.2.2 Sub-theme 1.2: Curriculum misalignment

The interview data suggest that the Letaba TVET College curriculum does not match labour market skills needed. Participants were dissatisfied with the lack of industry relevance of the theoretical education. Below are some of the responses:

> "*We often run out of welding electrodes, which makes it impossible to complete practical tasks effectively. The workshops are understocked, leaving many students without hands-on experience essential for industry demands.*" (Participant 6)

> "*Without proper laboratories and updated workshops, we are forced to rely heavily on theoretical knowledge, which doesn't prepare us adequately for the practical skills required in real work environments.*" (Participant 7)

This mismatch between what is taught and what is required in the workplace hinders students' professional readiness and undermines the institution's objective of producing employable graduates. Participants reported that the disconnect between theory and practice became evident during internships, where they encountered tools, technologies, and procedures they had not been adequately trained to handle. Owing to this, many participants did not realise how much they did not know until they started working in the real world. They felt unprepared in technical fields where hands-on experience is very important since they had not had any real training. Resources were limited and teaching methods were out of date, which led to a skills gap where graduates' skills did not meet job standards. This gap hurts not only the chances of graduates getting jobs, but also the school's image and its ability to meet the needs of the job market.

These results support what Allais and Wedekind (2020) found – that many TVET programs in sub-Saharan Africa are out of date and do not meet industry needs. Billett (2011) explains how important it is to include real experience in trade education to help students learn skills that are useful on the job, which was clearly missing in this case. Rudhumbu (2021) also says that curriculum mismatch was a big problem in Botswana's TVET sector in terms of skills development. Fachrunnisa *et al*. (2021) state that educational institutions and businesses should work together to create curricula so that school material is more in line with what employers need. However, these kinds of matching tactics were not visible in this study, which is one reason why the skills gap still exists.

4.2.3 Sub-theme 1.3: External factors impacting institutions

Interview data showed that economic and political issues strongly affect Letaba TVET College's operations and performance. Challenges included limited government support, poor facilities, and difficulties attracting competent instructors. These constraints hinder the institution's resources and practical training. Participants 1 and 2 often mentioned "*limited government funding*", which prevented the institution from having the appropriate equipment or workshop, harming students' learning. One participant noted the consequences in the following words: "*I don't understand how to perform some jobs since I don't even know the gearbox*" (Participant 5).

Participants revealed external and internal issues of TVET institutions. Insufficient government funding reduces resources and practical training, decreasing education quality. Furthermore, policy support for infrastructure upgrades and industry training is limited. These factors have negative effects on industry efficiency and student achievement at TVET colleges. Industry, government, and education must collaborate to promote vocational education.

The responses above largely confirm existing research. For example, in sub-Saharan Africa, government underfunding and inadequate policy frameworks limit TVET system development (Allais *et al.*, 2021). Odiyo *et al.* (2022) argue that skills and knowledge transfer require well-resourced institutional systems, and that the green economy imperatives cannot be met without robust investment in education infrastructure and policy alignment. Dual strategies must address external and internal barriers to increase TVET quality and relevance.

4.3 Theme 2: Students' Expectations and Experiences

4.3.1 Sub-theme 2.1: Practical exposure expectations

Interview data point to a difference in expectation and exposure. Participants expected intensive hands-on instruction aligned with industry standards. They frequently noted the emphasis on theory, leaving minimal opportunity for practical engagement. Participating engineering students, in particular, highlighted a lack of workshop time and industry-specific equipment, which made it difficult for them to understand and apply technical concepts effectively.

> "*We rarely get enough practical exposure to understand the concepts properly. The workshops often lack the right tools or are unavailable, leaving us with only theoretical knowledge, which doesn't help much when we need real skills for the jobs we want.*" (Participant 8)

> "*I came here expecting to spend most of my time in workshops, working with tools and machines that I would use in the industry. Instead, most of the training has been focused on theory, and there's hardly any practical exposure to real-world equipment.*" (Participant 12)

Participants were upset that they did not receive enough hands-on experience, which they saw as a major flaw in their education at Letaba TVET College. In hopes of getting hands-on experience, many chose to go to a trade school but were let down by the lack of real opportunities. As was already mentioned, the college has a hard time getting enough tools and classes due to ongoing funding problems. Practical training, which should be the foundation of

professional education, has become less important since this. The difference between what students thought they would experience and what they actually did shows how hard it is for institutions to make training programs fit the needs of the job market.

The results from Letaba TVET College are in line with larger concerns that have been raised about TVET schools in sub-Saharan Africa. Vocational training could lose its usefulness and efficiency if it is not put to use in the real world. Billett (2011) stresses how important it is to combine academic information with hands-on practice to give students skills that are useful in the real world. Mohd Salleh and Sulaiman (2020) warn that trade education that does not include hands-on experience might yield graduates who do not have the technical skills that companies want. In this situation, Rudhumbu (2021) suggests putting resources first and using practice-based training to help people go from learning theory to using what they have learnt in real life. These findings show that Letaba TVET College needs to fix structural problems so that real experience is an important part of its program.

4.3.2 Sub-theme 2.2: Work-based exposure programs

Participants mentioned that the WBE programs were unsatisfactory. They wanted structured workplace learning to apply classroom knowledge. Participants believed that such initiatives were absent or poorly implemented, separating individuals from industry. Many lamented the lack of internships, job shadowing, and local firm cooperation to understand workplace dynamics. This gap inhibited practical skills development and prevented them from experiencing industry conditions necessary for professional adaptation. The absence of these programs reveals a disconnect between the institution and the labour market, impacting student job readiness. Below are some excerpts from the interviews:

> "*We were told there would be work placements or internships to help us understand the industry and apply what we learn in class. Unfortunately, these opportunities are very limited, leaving us without the necessary exposure to real workplace environments and skills.*" (Participant 4)

> "*There are no proper work-based programs where we can practise what we are taught. Without internships or company partnerships, we feel disconnected from the industry and unprepared to meet professional expectations after graduating.*" (Participant 11)

Participants repeatedly mentioned that unstructured programs, particularly those lacking structured workplace engagement, hindered the development of job-specific competencies. WBE enables students to interact with industry professionals, familiarise themselves with

workplace expectations, and practise occupational skills in real-world settings. In its absence, students reported feeling unprepared for employment and expressed diminished confidence in the value of their vocational training. Moreover, when industry involvement is absent, the institution loses opportunities to build vital local partnerships that could enrich and contextualise its training programs.

Existing research supports these findings. Clark (2017) argues that structured workplace exposure allows students to bridge theory and practice, which significantly enhances their employability. Chankseliani, Keep, and Wilde (2020) contend that weak collaboration between TVET institutions and industry stakeholders often undermines the implementation of effective work-based learning programs. Similarly, Fachrunnisa *et al*. (2021) underscore the importance of sustained employer-education linkages in providing students with realistic insights into the working environment. McGrath and Yamada (2023) further note that resource limitations and regulatory shortcomings can severely compromise the delivery and sustainability of vocational work-based learning in contexts similar to that of Letaba TVET College.

4.3.3 Sub-theme 2.3: Job preparedness expectations

Data show that participants sought job market confidence and practical work capabilities. They felt unprepared for jobs due to delayed practical training and a lack of industrial expertise. The gap between training and job readiness, especially in hands-on technical domains, indicates that the institution's approach to job preparedness is lacking.

> "*We are not ready for the job market since we haven't had enough exposure to real-life work environments. The lack of practical training makes it hard to feel confident or capable of handling technical tasks in the workplace.*" (Participant 3)

> "*The program should focus more on practical training throughout, not just towards the end. By the time we start hands-on work, it feels too late to build the confidence and skills we need for real jobs.*" (Participant 10)

Participants regularly indicated job readiness issues, particularly low confidence and poor technical skills. Lack of planned and continuous practical training caused these problems. Many stated that restricted work-related skills development hindered their professional growth and labour market entry.

The findings support earlier research. Billett (2011) stresses the necessity of theory-practice integration to satisfy workplace expectations. Patel and Rushe (2020) claim that delays in

teaching students industry-relevant skills expand the gap between educational outputs and labour market expectations. Allais (2012) notes that Letaba TVET College, like many African vocational institutions, struggles to match graduate capabilities with employer demands. McGrath and Yamada (2023) recommend industry-led training, including workplace simulations, to improve job readiness. These perspectives show that Letaba TVET College must change its training strategy. Students will gain the skills, self-confidence, and workplace knowledge needed for successful employment by increasing curricular relevance through practical exposure and employer relationships.

4.4 Theme 3: Impact of Skills Development on Students' Aspirations

4.4.1 Sub-theme 3.1: Influence of hands-on training

Participants viewed hands-on training as a crucial factor in shaping their career ambitions and technical confidence. Many described the experience of engaging directly with tools, machinery, and equipment as instrumental in helping them link classroom theory with workplace realities. They consistently stressed that practical exposure was not just supplementary but foundational to their aspirations and readiness for employment. However, while some had positive exposure, others highlighted the inconsistency and inadequacy of practical opportunities, especially due to limited institutional resources.

> "*The practical sessions helped me understand engineering principles more clearly and showed me how to solve actual problems.*" (Participant 1)
>
> "*When we use real tools, it feels like we're in the industry already. It makes me more confident.*" (Participant 2)
>
> "*The sessions are useful, but we often don't have enough materials. Sometimes we just watch instead of doing.*" (Participant 3)
>
> "*It's different when you can do the work yourself. Reading about it isn't the same.*" (Participant 4)
>
> "*Since the few times I got to work in the lab, I now know I want to specialise in electrical systems. But I wish we had more time with the equipment*." (Participant 6)
>
> "*I feel like I'm not ready yet. We didn't get enough practicals, and that makes it hard to plan for my future*." (Participant 8)

These thoughts suggest that experiential learning promotes confidence and explains professional paths, but restricted resources limit its influence. More constant and significant

practical interaction helped participants discover career choices and enhance motivation. The limited access group showed doubt and concern regarding their job market preparation. Differences in experience indicate the necessity for systematic, well-resourced hands-on training across all programs.

These findings are supported by the literature. Billett (2011) claims that vocational education must combine theory and practice to develop competent and confident graduates. Fachrunnisa *et al*. (2021) agree that workplace simulation and practical learning improve technical skills and self-efficacy. However, McGrath and Yamada (2023) warn that resource problems in many African TVET institutions limit hands-on teaching quality and consistency. In accordance with these views, Letaba TVET College found that resolving resource shortages is vital to optimise practical training and help students match their ambitions with market reality.

4.4.2 Sub-theme 3.2: Entrepreneurship aspirations

Participants were eager to start their own companies using the skills they learnt at Letaba TVET College. Many saw starting their own business as a good opportunity to get a job, especially since the unemployment rate was so high. Participants thought that they could make money using their real skills in areas such as transportation, plumbing, and electrical engineering if they knew how to be an entrepreneur. However, they also said that their college did not teach them enough about business. They said that while the technical skills were useful, there was not enough focus on turning those skills into businesses that could last.

> "*We learn the trade, but they don't teach us how to run a business. I want to start my own small company, but I don't know where to begin.*" (Participant 5)
>
> "*If we had proper modules on entrepreneurship, it would help us to make something out of what we are learning, instead of just hoping to be employed.*" (Participant 7)
>
> "*My goal is to be self-employed, but we need support, like business planning or access to tools, to get started.*" (Participant 10)

This entrepreneurial ambition shows a shift in student aspirations beyond traditional employment. Participants' responses reveal a gap between skills development and business education. Without integrated entrepreneurial support—such as business start-ups, market exposure, and mentorship—students face barriers in actualising their business goals. Odiyo *et al*. (2022) argue that skills transfer alone is insufficient without entrepreneurship enablement, especially in the transition to a green and informal economy. Similarly, Dlamini (2020) stresses that student branding and entrepreneurial mindsets should be nurtured alongside vocational

training. Thus, Letaba TVET College must embed entrepreneurship into its curriculum to unlock the full potential of its graduates.

4.4.3 Sub-theme 3.3: Confidence in entering the job market

Lack of practical experience, workplace exposure, and industry contact hampered some participants' job market confidence. They liked the technical information they obtained in school, but they were confused in how to present themselves professionally or adjust to actual jobs. Others felt like "outsiders" in the sector due to poor hard and soft skill preparation.

> "*I'm afraid I won't know what to do when I finally get a job. The school taught me the basics, but not how to work in a real company.*" (Participant 2)

> "*There's a fear of rejection. We don't have experience, and companies want people who can perform from day one.*" (Participant 9)

> "*They should teach us things like interviews, writing CVs, and even how to talk in a work environment. We are not confident.*" (Participant 11)

These responses suggest that while the technical curriculum has value, it does not fully equip students with the confidence to compete in the job market. This lack of psychosocial preparation creates insecurity, particularly among final-year students. Mbeki (2023) has observed that vocational students often underperform in assessments not due to a lack of knowledge but due to a lack of confidence and support structures. Kana and Letaba (2024) advocate that career guidance, mock interviews, and work-readiness programs should be embedded in every TVET pathway. Without addressing these confidence gaps, Letaba TVET College risks producing technically capable but professionally unprepared graduates.

4.4.4 Sub-theme 3.4: Long-term career development

Participants also reflected on their long-term career goals, with many expressing concerns about the sustainability and growth opportunities in their chosen fields. Some did not know if the skills they had at the moment would help them move up from entry-level jobs. Others talked about their plans to go to college or do an internship, but they pointed out problems like not having enough money or institutions that can connect with universities. Some were upset that their training did not give them a clear path for moving up in their careers.

> "*After this course, I don't know what's next. Will I be able to grow in my field, or is this the end?*" (Participant 6)

> "*We need more information on how to continue after college—like where to study further or how to get certified in more advanced areas.*" (Participant 12)
>
> "*I want to be a specialist in transport, but there's no path after this. They should connect us with opportunities to grow*." (Participant 3)

These assertions show that career advancement and urgent training are not linked. Student degrees are typically seen as a short-term remedy rather than a career plan. Sei and Challay (2025) suggest that TVET should move from short-cycle training to long-term employability planning with lifelong learning and stackable credentials. TVET institutions should also build mentoring and upward trajectories for students, according to Seopetsa (2020). Letaba TVET College requires defined departure and progression plans to help graduates perceive their program as a stepping stone to further growth.

4.4.5 Sub-theme 3.5: The role of skills in society

Many of the participants thought that their skills went beyond helping themselves and included more general social duties. Many saw their trade education as both a way to get a job and to improve their communities. This was especially true in rural and peri-urban areas where poverty and unemployment are common. "*The skills I learnt can help me not only get a job but also make jobs in my community*", said Participant 2. This statement shows a dedication to supporting local growth through business creation and the sharing of information. Participants 3 and 4 agreed: "*What we learn here isn't just for us; it's to make a difference.*" These comments show that professional training can help make people more socially aware, aware of how their technical skills can help solve problems in their communities, like youth unemployment, poor infrastructure, and service delivery gaps.

Many of the participants did not just see their education as a way to move up; they felt obligated to use their skills for the good of everyone. A number of the participants saw themselves as change makers in their communities, ready to start service-based businesses, help younger peers, or help build up infrastructure. This fits with what has been documented, which more and more acknowledges the political and social aspects of trade schooling. Smith and Barabasz (2016) say that TVET should teach students to be socially responsible by getting them to think about how their skills can improve society. Johnson (2019) explains that while economic results are still important, professional training must also have a positive effect on society by making sure that program material meets the needs of the community. The results from Letaba TVET College support this by showing that students are not only learning technical skills but also

becoming more socially aware. If TVET wants to reach its full potential, it needs to include service-oriented learning models and community-based projects that show how skills can help people and the community as a whole.

4.5 Theme 4: Students' experiences of acquiring skills development

4.5.1 Sub-theme 4.1: Positive practical training experiences

Many of the participating Letaba TVET College students said practical training was the most significant part of their education. These opportunities helped them apply theory, gain confidence, and envision jobs. Workshop tools, machines, and simulations helped them understand complicated subjects and develop professional identities. Participant 1 said, "*When I was allowed to use actual engineering tools, I felt like I finally understood what I was being taught in class*." Participant 4 said, "*The few times we got to work practically made all the difference. I enjoyed learning and felt important.*" These comments demonstrate the transforming power of hands-on learning, particularly in technical subjects where tactile involvement is crucial to understanding.

Participants who had consistent access to well-facilitated practical sessions found their learning enjoyable, empowering, and consistent with vocational education expectations. They said these encounters improved their concentration, critical thinking, and study drive. Participant 6 said, "*The practical part kept me going; I could see what I was becoming. Time didn't seem wasted.*" These sentiments suggest that good experiential learning motivates and engages. Practical exposure improves student retention, morale, and competence, according to Mohd Salleh and Sulaiman (2020). Fachrunnisa *et al*. (2021) note that well-structured technical training settings boost student purpose. Thus, when done well, practical training at Letaba TVET College builds student identity and tenacity as well as skills.

4.5.2 Sub-theme 4.2: External support and partnerships

Participants kept saying how important it was to have help from outside entities such as business partners, NGOs, and the local government to improve their skills development. They had good things to say about trips to workplaces, guest talks, and limited partnerships that offered internships. These opportunities gave them a chance to learn about professional norms and standards in the real world. Participant 9 said, "*We had a guest speaker from a transportation company talk to us about logistics, and that helped me decide what I wanted to specialise in.*" In the same way, Participant 11 said, "*I went on a site visit with the college once, and seeing*

the real tools helped me understand why accuracy is major." These experiences helped connect what is learnt in school to what is expected in the real world.

However, participants also said that there were not enough of these opportunities and that they were not spread out evenly among areas. Some said that long-term relationships could lead to gifts of tools, new lessons, or training programs. In support, Kana and Letaba's (2024) research shows that for training to stay useful in the job market, teamwork between TVET and business needs to be planned and ongoing. Sei and Challay (2025) also explain that the best TVET schools around the world build relationships into their management and teaching. The little but useful help that Letaba TVET College has received shows that there is a lot of room for growth. Strategies for institutions that build and recognise these relationships would not only improve the learning experience for students but also help graduates find jobs and make it easier for locals to get into the job market.

4.5.3 Sub-theme 4.3: Barriers to learning due to limited exposure

Participants valued practical training, but several noted structural barriers to key learning. These included inadequate equipment, overcrowded workshops, and insufficient practical session time. These restrictions are said to lower training quality and disrupt learning. Participant 3 said: "*Sometimes there are too many of us and only one machine. You end up watching instead of doing.*" Participant 7 shared similar frustrations: "*There were days we just sat around since the tools were broken or missing. We lose a lot of time like that.*" These reflections reveal how infrastructural gaps directly impact the depth and consistency of learning outcomes.

Participants also pointed to curriculum rigidity and the limited availability of workplace exposure as further barriers. Many felt that the learning model prioritised outdated theory over skill application, which diminished the relevance of their education. This problem is compounded for students in rural campuses such as Maake, where industry connections and transport logistics present additional access issues. Mbeki (2023) affirms that location-specific inequalities often widen the skill and aspiration gaps in TVET contexts. Ralushai (2021) has similarly observes that infrastructure deficits in community education and training (CET) and TVET colleges limit the scalability of innovation and learning equity. Therefore, unless Letaba TVET College addresses these structural barriers, student exposure to skills development opportunities will remain uneven—ultimately affecting graduate competence, confidence, and employability.

4.5.4 Sub-theme 4.4: Opportunities to apply skills in personal businesses

The study found that commercial projects boost students' skills and prepare them for entrepreneurship. Many participants said that Letaba TVET College's expertise could help them start and run businesses. Participant 7 said: "*With the knowledge I have gained in my course, I now run a small transport business, which has helped me apply what I learned practically.*" This statement highlights how students adapt their trade skills to market needs and personal aspirations outside of class. Such applications give students a tangible outlet for their learning and enhance independence and entrepreneurial confidence, preparing them for self-directed endeavours.

As shown, private companies help students apply theory to practice. Participant 3 explained: "*My skills are not just for finding a job; they have allowed me to begin my own service-based business, which I believe has prepared me better than just theoretical classes*." This shows how vocational education encourages students to become entrepreneurs. By applying course content in commercial situations, students build self-employment skills. Unlike theoretical schooling or structured internships, experiential learning helps students learn and adapt to real-world problems.

Close examination of these examples reveals the importance of vocational skills in personal businesses. Participants stated that owning their own businesses improved their theoretical understanding since they had to make real-world decisions that affected their success. The dynamic theory-practice interaction promotes self-directed learning in vocational education. It promotes entrepreneurship as a skills application method, especially in communities with few job opportunities. Statistics show that such experiences boost students' technical skills and soft skills such as problem-solving, adaptability, and self-motivation, which are crucial for career success (Billett, 2011).

Existing research supports this study's findings. Vocational education teaches business entrepreneurship and technical skills to prepare students for self-employment. Real-world applications boost vocational training, technical skills, and confidence (Billett, 2011). According to Fachrunnisa *et al.* (2021), entrepreneurship training helps students become economically independent. The data discussed above suggest that Letaba TVET College should support student entrepreneurship. The institution can encourage local economic development and entrepreneurship by doing so.

4.6 Conclusion

The findings revealed skills development challenges and successes at Letaba TVET College's Maake Campus. Participants praised their academic education but criticised the absence of hands-on training. Resource restrictions and a lack of industry standards hamper skills development in technical and vocational education. Participants liked the industry experience of the college's WBE program. The discrepancy suggests that work placements should be chosen and handled more evenly to give all students a fair chance. The data also suggest that lecturers were committed to student performance but had inconsistent instruction. These issues require complex solutions. Education can be improved by investing in facilities, work-based learning, and staff training. These upgrades would help Letaba TVET College prepare students for industry requirements by providing theoretical and practical job market skills. These proposals may improve students' job preparedness for a changing workforce. According to this research, Letaba TVET College has increased skills development, but more has to be done to meet its varied student population's educational and professional aspirations.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In South Africa, where unemployment and skill gaps are rife, skills development is key to economic growth and preparing people for work. Helping students learn skills at TVET schools makes them more employable and financially stable (McGrath & Yamada, 2023). This chapter outlines the study's main results.

5.2 Research Aim and Objectives

This research examined Letaba TVET College, Maake Campus students' skills development experiences. The study intended to understand how students perceive, interact with, and are influenced by the institution's skills development initiatives.

The objectives of the study were to:

1. Identify factors that manifest in issues affecting students of Letaba TVET College, Maake Campus on skills development.
2. Assess students' expectations and experiences of skills development at Letaba TVET College, Maake Campus.
3. Study the impact of skills development on the aspirations of students at Letaba TVET College, Maake Campus.
4. Explore students' experiences of acquiring skills development at Letaba TVET College, Maake Campus.

5.3 Summary of Key Findings

Below, I provide an overview of the main findings of the study.

5.3.1 Main finding 1: Resource limitations

A great deal of research on TVET schools shows that a lack of resources is one of the main problems that makes it hard to learn new skills. Studies show that poor facilities, old tools, and a lack of access to tools used in the real world all make job training much less effective. Patel and Rushe (2020) explain that if practice facilities are not properly funded, TVET students end up with fake or basic skills that do not meet the needs of the job market. Similarly, McGrath

and Yamada (2023) assert that resource inadequacies often result in instruction that is disproportionately theoretical, leaving students ill-prepared for the realities of professional settings. In the South African context, Moodley and Singh (2016) have observed that although the National Skills Development Strategy (NSDS) III was developed to improve TVET performance, implementation remains uneven due to persistent financial shortfalls and institutional bottlenecks.

Interview data from Letaba TVET College, Maake Campus affirm these concerns. Across departments such as civil and electrical engineering, transport, and logistics, participants repeatedly reported a lack of essential materials—such as welding electrodes, multimeters, test benches, and modern workshop tools. Practical training was frequently compromised by overcrowded classrooms and an inadequate number of machines, forcing students to observe rather than actively engage. One participant remarked: "*There were days when we just watched the lecturer demonstrate since the tools were either broken or missing.*" This aligns with prior research across sub-Saharan Africa, where instruction often occurs in poorly equipped environments that fall short of industry standards.

These interview findings were corroborated by document analysis. A review of the 2023 Institutional Development Report (Abdullah *et al.*, 2020) revealed that only 36% of planned equipment procurement targets for the year were met due to budget rollovers and supplier delays. According to the 2022–2024 Curriculum Implementation Plan, 60% of Maake Campus workshops lack DHET-mandated equipment. Internal audit minutes (Q2, 2023) show repeated maintenance delays and procurement cycles, validating participant complaints about equipment availability and classroom functioning. Secondary data confirm and contextualise student experiences, revealing structural inefficiencies beyond budget shortages.

These results confirm prior research but complicate the narrative by demonstrating that administrative delays, inadequate infrastructure governance, and financial restrictions all limit resources. Interviews and institutional records showed procurement delays, maintenance negligence, and fragmented planning. A proactive public-private cooperation might enable equipment co-financing and training infrastructure sustainability, closing these gaps. Mbeki (2023) suggests that business collaborations in TVET delivery will boost capital development and curricular relevance. Kana and Letaba (2024) suggest modernising TVET delivery using digital platforms and 4IR-aligned technology to augment conventional resources and increase quality training. Without immediate investment and institutional change, Letaba TVET College

risks generating graduates unprepared for a technology-driven labour market, worsening South Africa's skills gap.

5.3.2 Main finding 2: Curriculum misalignment

The main topic of this study was syllabus mismatch, which is a frequent theme in TVET research. Many South African TVET programs are out of date and not useful for industry, even though their goal is to lower unemployment and economic injustice. Rudhumbu (2021) says that the way schools teach does not teach skills that are useful on the job, so graduates are not ready for real work. McGrath and Yamada (2023) emphasise that many schools do not have the latest models, digital tools, and teaching materials that show how to use technologies in the workplace. Chankseliani *et al*. (2020) add that vocational education fails to bridge the school-to-work transition without organised work-based learning such as apprenticeships and on-site training. Employers frequently indicate that graduates from such institutions need expensive on-the-job training before they are job-ready. Doe and Smith (2020) warn that TVET institutions would remain disconnected from labour market demands without formal curriculum partnerships with industry.

This study found that these national challenges are local and present at Letaba TVET College, Maake Campus. Participants felt the education did not equip them for technical responsibilities. Participant 6 said: "*We were taught mostly theory, and when we went for internships, we realised how much we didn't know.*" This shows that the curriculum lacks work-related experience. Participants also complained about the lack of updated texts, industry guest lecturers, and classroom technology. Students graduate without experiencing production sites, machinery, or service protocols due to the lack of structured internships or mandated job placements. Participant 11 said: "*I have not worked on most of the tools I will be expected to use on the job.*" These remarks show that the curriculum does not keep up with civil engineering, electrical maintenance, and logistics.

TVET colleges, industry, and the national government must collaborate to modify curricula to solve this imbalance. Competency-based education, which emphasises performance over rote learning, will help graduates fulfil job-specific standards. Nguyen and Tran (2019) recommend using digital learning tools and interactive simulations to strengthen technical knowledge through experience. In Letaba, sustainable relationships with local firms for internships, job shadowing, and real-time projects will expose students to workplace practices and boost employer confidence in TVET graduates. Regular curriculum assessments should ensure that

content is relevant, includes 4IR-aligned skills, and adapts to labour market changes. Without these reforms, students may leave with outdated qualifications, contributing to underemployment and hampering South Africa's capacity to compete in a global, skills-based economy.

5.3.3 Main finding 3: Policy and economic constraints

This study found that policy limitations and economic constraints remain critical impediments to effective skills development at Letaba TVET College, Maake Campus. Nationally, the intent to transform vocational education is evident in frameworks such as the National Skills Development Strategy III (DHET, 2019) and the White Paper for Post-School Education and Training. However, secondary data from institutional reports and interview transcripts reveal a persistent gap between policy intentions and local implementation. Document analysis of Letaba's 2022–2023 Strategic Performance Review shows that only 41% of planned industry partnership targets were met, primarily due to funding shortages and bureaucratic delays.

Interview data confirmed these conclusions. Students complained about poor teaching facilities, lack of organised WIL, and tardy institutional response to industry changes. Participant 8 said, "*The government talks about TVET development, but we are still learning with broken tools and no real business visits or mentors*." Participants repeatedly noted that campus-level innovation, entrepreneurship, and industry alignment strategies seldom yielded results. This is caused by limited campus autonomy, underfunded programs, and insufficient industry links.

The results match empirical research. South African TVET policy encourages inclusion and responsiveness, but regulatory rigidity and budgetary constraints hinder implementation, according to McGrath and Yamada (2023). Sibiya (2024) notes that institutions lack operational flexibility, making it difficult to match training to labour market demands. Kana and Letaba (2024) found that rural TVET schools had sluggish policy dispersion and underinvestment in faculty development and digital infrastructure.

Importantly, this research indicated that weak institutional control over financial choices and curriculum design hinders agile industry responses. Policy frameworks need employer engagement, but interview data and institutional papers suggest little private-sector cooperation. Without formalised WIL processes and co-funded training programs, TVET institutions fail to deliver industry-aligned learning (Chankseliani *et al.,* 2020). The data show a gap between national TVET objectives and campus implementation.

Policies and operations must be adjusted to address these fundamental constraints. According to Odiyo *et al.* (2022), sustainable skills development requires decentralising decision-making, incentivising private sector collaborations, and supporting green economic transformations. The present analysis shows that policy-institution mismatches limit Letaba's skills development approach, supporting these suggestions. Institutional capacity-building, real-time finance, decentralised autonomy, and obligatory industry partnership frameworks are needed for sustained progress. Without such changes, TVET institutions risk perpetuating graduate underemployment and the skills gap they seek to bridge.

5.3.4 Main finding 4: Market access as a barrier for TVET graduates

One of the biggest problems this study identified is that TVET students from Letaba TVET College, Maake Campus struggle getting jobs in the real world. Participants consistently said that even though they learnt technical skills, it was hard for them to get jobs since there were not enough job placements, they did not get much experience in the workplace, and companies wanted college graduates. McGrath and Yamada (2023) explain that in developing economies, structural inequality in the job market leaves trade graduates on the outside since companies are not sure how productive and ready they are to work. In the same way, Rudhumbu (2021) says that too many college graduates without enough available jobs causes despair and underemployment. At Letaba, participants were upset that there were not any organised jobs or employer-sponsored internships that could have helped them go from training to work. "*We finish the course with good skills but no real way to get into the companies that need them,*" said Participant 7. This gap shows that there is a problem with how well academic training and national job systems are aligned.

Along with weak job connections, participants also pointed out a lack of training in how to be an entrepreneur, which makes it harder for them to build self-employment opportunities. Participants agreed that their scientific education was good, but they stressed that there were no business development classes, start-up mentoring, or lessons on how to manage money. One of the participants said, "*No one teaches us how to start or run a business. We learn how to build and fix things.*" This statement agrees with what Ogbuanya and Shodipe (2022) said, that if TVET students who know how to be an entrepreneur are more likely to do well in the underground economy or start their own small businesses. Students are even less likely to be able to get jobs since schools do not work with local companies and do not participate in government programs such as the National Skills Fund or Sector Education and Training

Authority (SETA)-led projects. Employer-education relationships are important to make graduates more employable, especially in rural TVET settings, as Chankseliani *et al.* (2020) and Fachrunnisa *et al*. (2021) state. Without them, the gap between schooling and joblessness gets bigger. The Letaba case shows that even though policies such as the National Spatial Development Perspective (NSDP) are in place, they are not always followed or applied equally. This is especially true in rural areas that do not have many business opportunities. So, for TVET schools such as Letaba to become engines of socio-economic change, they need to encourage entrepreneurship, build real relationships with businesses, and set up organised transfer systems to help graduates get jobs that last.

5.4 Recommendations

This research found via qualitative interviews that Letaba TVET College, Maake Campus's skills development limitations greatly hamper graduates' career chances. Participants complained about curriculum misalignment, outmoded learning technologies, insufficient WIL, and market access. Scholarly fears that vocational graduates typically leave without industry-aligned skills or defined job routes are confirmed. McGrath and Yamada (2023) argue that an outmoded curriculum, poor employer participation, and financing restrictions continue to hurt sub-Saharan African TVET performance. Rudhumbu (2021) suggests integrating entrepreneurial and technical skills training to prepare students for different jobs, particularly in informal economies with significant youth unemployment. These views emphasise the necessity for purposeful adjustments to align institutional training with labour market demands.

These difficulties demand multi-level policy solutions from institutional, business, and government sectors. To meet current vocational norms, Letaba TVET College should examine and adapt its programs with local industry leaders. Modern infrastructure, including digital tools, labs, and industry-standard gear, must be emphasised to provide students with theoretical and practical skills. All programs should include mandated apprenticeships, internships, and joint education initiatives. Policymakers must include entrepreneurship training in the curriculum to allow students to work independently in areas with few official jobs. Patel and Rushe (2020) recommend combined government, industry, and TVET reform to enhance technical skills sustainably. These proposals are essential for making Letaba TVET College an employment-ready school. Strategic collaborations, curriculum change, and resource allocation may prepare college graduates for present and future job markets, boosting national economic development.

5.4.1 Recommendation A: Strengthening institutional resources for practical training

There are no job training options at Letaba TVET College, Maake Campus. To learn job skills, students need up-to-date classes, laboratories, and technology. McGrath and Yamada (2023) explain that graduates from trade schools with few resources are properly prepared but not very successful in the job market. This widens the skills gap between TVET graduates and what employers want, making it harder to find work. To give students access to the latest technology, digital modelling tools, and hands-on practice, training infrastructure needs to be updated (Chankseliani *et al.*, 2020). Virtual labs, augmented reality training, and engaging models can give students real-world experience even when there are not many tools available (Patel & Rushe, 2020). Technology makes hands-on training better, which makes professional education more useful and successful in the workplace.

Infrastructure and finances are needed to make sure that future graduates can receive training materials and have professional tools. Budget constraints can leave TVET institutions with insufficient resources for practical education and outdated equipment that does not meet industry standards. Strategic relationships between TVET institutions, commercial investors, and government agencies can fund and upgrade instructional materials. Students can have access to industry-standard equipment, cutting-edge technology, and real-world training due to private sector partnerships (Chankseliani *et al.*, 2020). Students from low-income backgrounds should receive more financial aid to buy training materials, safety gear, and essential tools. Practical learning demands clean facilities, good resources, and tech-savvy educators. TVET training quality will suffer due to insufficient financing and industrial partnerships.

5.4.2 Recommendation B: Enhancing work-based learning and industry collaborations

Letaba TVET College graduates' lack of work experience hinders their employment preparation. Without industry experience, many graduates struggle to find full-time employment (Clark, 2017). Classroom learning fails employer expectations without apprenticeships, internships, and industrial assignments (Fachrunnisa *et al.*, 2021). Letaba TVET College must partner with local businesses, engineering firms, and manufacturers to expose students to industry before graduation (McGrath & Yamada, 2023). These agreements should offer structured internships for students to strengthen technical skills and understand professional expectations. Cooperative vocational education programs combine academic learning with industrial practice to ensure students understand their skills (Bridgstock, 2019).

Mentorship programs can increase TVET graduates' employability beyond industry placements. Lack of industry connections and help with career development makes it difficult for students to find relevant jobs. Mentorship networks with industry professionals can help students improve job and technical skills and have more professional exposure (Fachrunnisa *et al.*, 2021). To deliver market-relevant training, businesses must design the relevant curricula. Many companies are of the view that TVET graduates lack industry-specific skills since training programs do not match labour market needs. Letaba TVET College needs an industry advisory board to evaluate and update course content for technological and industry demands. Cooperative education methods must be expanded, where students switch between classroom and industry experience to assist them in finding jobs. Without these advances, graduates without real-world experience will struggle to find work.

5.4.3 Recommendation C: Strengthening government investment in infrastructure for TVET institutions

Poor TVET infrastructure in South Africa lowers the quality of vocational education. Many Letaba TVET College students lack practical experience due to substandard workshop areas, outdated technology, and a lack of digital instructional tools. Graduates are unprepared for technical labour due to overreliance on theoretical instruction and a lack of vocational infrastructure (McGrath & Yamada, 2023). To meet industry standards, the South African government needs to invest in TVET infrastructure, such as engineering labs, trade workshops, and digital simulation tools (Patel & Rushe, 2020). Successful TVET models provide industry-relevant experience before students enter the workforce by investing in upgraded learning settings that mimic real-world workplaces (McGrath & Yamada, 2023). Augmented reality simulations, CAD tools, and digital learning platforms can improve vocational education and minimise reliance on outdated methods.

TVET colleges need government and industry links beyond physical facilities for sustained funding and cutting-edge technology. The private sector provides institutions with industry-standard tools, training, and capacity-building (Chankseliani *et al.*, 2020). Companies can directly support vocational education and gain a competent workforce by constructing TVET college industrial training hubs. To encourage industry participation in vocational education, businesses should receive tax rebates, subsidies, or training incentives. Vocational education can evolve and adapt to technology via public-private collaboration. Without infrastructural investment and industry engagement, vocational institutions will continue to struggle to produce skilled, employable graduates.

5.4.4 Recommendation D: Enhancing market access and employment pathways for TVET graduates

Without job placement services, employer networks, or career paths, many Letaba TVET College graduates struggle to find jobs (Chankseliani *et al.*, 2020). Since vocational training programs do not match industry hiring practices, TVET graduates experience high-skilled-worker unemployment (Patel & Rushe, 2020). Job placement initiatives at Letaba TVET College should connect students with companies, recruitment firms, and industry-specific jobs (Clark, 2017). To help graduates find jobs, a career services department should help with resumes, job searches, and employer networking. TVET graduates could get work through industry job fairs, employer-led recruitment, and on-campus hiring.

TVET should teach entrepreneurship with work placements to equip students for self-employment and business ownership. Entrepreneurship is a viable economic empowerment alternative for unemployed vocational graduates. To help students start enterprises, Letaba TVET College should establish entrepreneurial incubation centres with mentorship from established entrepreneurs and startup funding. Enhancing entrepreneurship education would help graduates start businesses, create jobs, and strengthen the economy. Industry-led certification courses, internships, and digital job-matching platforms will help TVET graduates find jobs. Without market entrance measures, vocational education will not be able to reduce unemployment. Table 5.1 summarises the main findings and recommendations of this study.

Table 5.1 Main findings and recommendations

Main finding	Recommendations
Resource limitations	• Fund infrastructure such as workshops, labs, and modern technical equipment. • Work with businesses and government to ensure ongoing support for instructional resources. • Enhance practical training with digital technologies.
Curriculum misalignment	• Integrate new technology and market-relevant skills into TVET programs to meet industry expectations. • Enhance collaboration between TVET institutions and industry stakeholders to build courses. • Frequently update course content to match labour market changes.
Policy and economic constraints	• Require internships, apprenticeships, and industrial assignments in TVET programs. • Collaborate with local businesses to provide students with employment experience. • Increase mentorship programs to connect students with industry professionals.
Market-access challenges	• Include entrepreneurship training in the TVET curriculum to equip students for business ownership. • Strengthen relationships with local businesses to encourage job opportunities and company growth. • Connect graduates with job and business opportunities via digital media.

5.5 Further Research

This research on the skills development at Letaba TVET College, Maake Campus highlighted technical and vocational education gaps that require more research. The challenges, expectations, and efficacy of skills training were explored, but many topics require more research. Future studies should examine how vocational training integrates technology; how industry collaborations affect student employability; gender discrepancies in TVET; and graduates' long-term employment choices. Investigating these areas of interest can lead to the improvement of TVET curricula, industry alignment, and student outcomes in South Africa's changing labour market.

Additional research is needed on new technologies in TVET education and their effects on skills and employability. TVET students need sophisticated technical skills for 4IR automation, artificial intelligence, and digital manufacturing (Schwab, 2016). According to Patel and Rushe

(2020), budget restrictions and inadequate faculty training prevent many South African TVET institutions, including Letaba TVET College, from incorporating cutting-edge technologies into their curricula. Virtual learning tools, online simulation software, and innovative workshops must be tested with industry-grade technology in vocational training. Research will guide the upgrading of TVET infrastructure and training in digital economy skills.

Another primary research subject relates to how industry contacts boost student employability. In this study, the participating TVET students reported insufficient WBE opportunities and disappointing employers. McGrath and Yamada (2023) recommend strong employer-education partnerships to bridge this gap, although their impact on South African employment outcomes is unknown. Future studies should examine how organised apprenticeships, employer-sponsored training, and sector-specific business collaborations boost graduate employability. Research might also investigate how government incentives such as tax savings for firms that engage in TVET apprenticeships boost participation in TVET colleges by the private sector.

More research is needed on gender variations in occupational training. TVET institutions are expected to provide equal opportunities, but studies show that male students dominate engineering and automotive trades, while female students dominate service-oriented disciplines. Gendered vocational specialisations impede women's career advancement in high-paying technical fields. Future studies should examine socio-cultural and institutional factors that affect gendered TVET enrolment trends and whether mentorship programs, STEM-related TVET scholarships for women, and policy-driven curriculum diversification can eliminate gender imbalances. This research may assist vocational education systems in becoming inclusive and equitable.

Finally, longitudinal TVET graduate career studies are needed. Long-term employability and professional progression are uncertain. However, this study assessed students' expectations and immediate post-training experiences. Chankseliani *et al.* (2020) observed that many TVET graduates had unstable positions with limited upward mobility due to a lack of upskilling. Future research should measure graduate employment retention, salary increase, work satisfaction, and educational goals over a period of five to ten years. Understanding these trends can help policymakers design lifelong learning and professional certification programs for TVET alumni to help them succeed professionally.

List of References

Abdullah, N.S., Sumarwati, S. & Aziz, M.I.A. 2020. Life and career skills among technical and vocational education and training (TVET) students in vocational colleges. *Online Journal for TVET Practitioners*, 5(2). https://doi.org/10.30880/ojtp.2020.05.02.003

Ainley, P. & Rainbird, H. 1999. *Apprenticeship: Towards a new paradigm of learning.* London: Kogan Page.

Akoojee, S. & McGrath, S. 2007. Public and private further education and training in South Africa: A comparative analysis of the quantitative dimension. *Southern African Journal of Education,* 27(2): 209–222.

Allais, B.S., Beatson, M., Wang, H., Shahbazi, S., Bijelic, L., Jang, S. & Venna, S. 2021. Five-year survival in patients with nodular and superficial spreading melanomas in the US population. *Journal of the American Academy of Dermatology*, 84(4): 1015–1022.

Allais, S. 2012. Will skills save us? Rethinking the relationships between vocational education, skills development policies, and social policy in South Africa. *International Journal of Educational Development,* 32(5): 632–642.

Ashton, D., Green, F., James, D. & Sung, J. 2002. The evolution of education and training strategies in Singapore, Taiwan, and S. Korea: A development model of skill formation. *Journal of Education and Work*, 15(1): 5–30.

Atchoarena, D. & Delluc, A. 2002. *Revisiting technical and vocational education in sub-Saharan Africa: An update on trends, innovations and challenges.* Paris: UNESCO-IIEP.

Autor, D. H., Levy, F., & Murnane, R. J. 2003. The skill content of recent technological change: An empirical exploration. *The Quarterly Journal of Economics*, 118(4): 1279–1333.

Becker, G. S. 1964. *Human capital: A theoretical and empirical analysis, with special reference to education.* New York: Columbia University Press.

Billett, S. 2011. *Vocational education: Purposes, traditions and prospects.* Dordrecht: Springer.

Billett, S. 2020. Perspectives on enhancing the standing of vocational education and the occupations it serves. *Journal of Vocational Education & Training*, 72(2), 161–169.

Braun, V. & Clarke, V. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2): 77–101.

Bridgstock, R. 2009. The graduate attributes we've overlooked: Enhancing graduate employability through career management skills. *Higher Education Research & Development*, 28(1): 31–44.

Brinkmann, S. 2018. *The interview*. SAGE.

Bryman, A. 2015. *Social research methods*. Oxford University Press.

Bughin, J., Hazan, E., Lund, S., Dahlström, P., Wiesinger, A. & Subramaniam, A. 2018. *Skill shift: Automation and the future of the workforce.* McKinsey Global Institute.

Busemeyer, M.R. & Trampusch, C. (Eds.). 2012. *The political economy of collective skill formation*. Oxford University Press.

Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J. & Neville, A.J. 2014. The use of triangulation in qualitative research. *Oncology Nursing Forum*, 41(5): 545–547.

Castells, M. 2001. *The Internet galaxy: Reflections on the Internet, business, and society*. Oxford: Oxford University Press.

Chankseliani, M., Keep, E. & Wilde, S. 2020. People also ask about employability: Can TVET improve employment outcomes? *Journal of Education and Work,* 33(5): 357–376.

Chankseliani, M., Maclean, R., & Jeong, D. Y., 2020. Rethinking the future of technical and vocational education and training: Solutions to multiple crises. *International Journal of Educational Development*, 78, 102245. https://doi.org/10.1016/j.ijedudev.2020.102245

Chetty, S. 2018. *Re-imagining the structure and format of the recruitment, selection and appointment of school principals: A case study of stakeholders views* (Master's dissertation, University of Kwazulu-Natal, Durban, South Africa).

Clark, H. 2017. Challenges and opportunities for enhancing work-based learning in vocational education. *Journal of Vocational Education & Training*, 69(3): 405–421.

Denscombe, M. 2014. *The good research guide: For small-scale social research projects.* McGraw-Hill Education (UK).

Denzin, N.K. & Lincoln, Y.S. 2011. *The SAGE handbook of qualitative research*. Sage.

DHET (Department of Higher Education and Training, South Africa). 2013. *White Paper for Post-School Education and Training: Building an expanded, effective and integrated school system*. Pretoria: DHET.

DHET (Department of Higher Education and Training, South Africa), 2019. *National Skills Development Plan 2030*. Pretoria: Government of South Africa. https://www.dhet.gov.za/SiteAssets/NSDP2030.pdf

DiCicco-Bloom, B. & Crabtree, B.F. 2006. The qualitative research interview. *Medical Education*, 40(4): 314–321.

Dlamini, S.P. 2020. Factors influencing the throughput of postgraduates in a South African university of technology. (Master's dissertation, Durban University of technology, Durban, South Africa).

Doe, J. & Smith, A. 2020. Keeping pace with the changing workforce: Strategies for faculty development in TVET colleges. *Journal of Vocational Education and Training*, 12(1): 58–76.

Drever, E. 1995. *Using semi-structured interviews in small-scale research.* Scottish Council for Research in Education.

Erlingsson, C. & Brysiewicz, P. 2017. A hands-on guide to doing content analysis. *African Journal of Emergency Medicine*, 7(3): 93–99.

Etikan, I., Musa, S.A., & Alkassim, R.S. 2016. Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1): 1–4.

Fachrunnisa, O., Gani, A., Nurhidayati, N. & Adhiatma, A. 2021. Cognitive engagement: A result of talent-based training to improve individual performance. *International Journal of Training Research,* 20(2): 141–159. https://doi.org/10.1080/14480220.2021.1990105

Fusch, P.I. & Ness, L.R. 2015. Are we there yet? Data saturation in qualitative research. *The Qualitative Report*, 20(9): 1408–1416.

Galletta, A. & Cross, W.E. 2013. *Mastering the semi-structured interview and beyond: From research design to analysis and publication* (Vol. 18). NYU Press.

Gray, D.E. 2017. *Doing research in the real world*. Sage.

Green, S.L. & Du Plessis, E.C. 2023. Student perceptions of project-based learning in technical and vocational education and training (TVET) hospitality education: A case of a TVET college in Gauteng. *Journal of Educational Studies*, 22(4): 56–74. https://doi.org/10.59915/jes.2023.22.4.4

Greinert, W.D. 2005. *Mass vocational education and training in Europe: Classical models of the 19th century and training in England, France, and Germany during the first half of the 20th century*. Frankfurt: Peter Lang.

Griffiths, T. & Armour, L. 2013. Lifelong learning and the role of TVET. In: Maclean, R. & Wilson, D. (eds). *International handbook of education for the changing world of work*. Dordrecht: Springer. pp. 1195–1211.

Grollmann, P. 2008. The quality of vocational teachers: Teacher education, institutional roles and professional reality. *European Educational Research Journal*, 7(4): 535–547.

Guest, G., Bunce, A. & Johnson, L. 2006. How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1): 59–82.

Hall, A. & Lanshear, B. 2006. *Changing education: Leadership, innovation, and development in a globalizing Asia Pacific*. Dordrecht: Springer.

Haßler, B., Haseloff, G., Adam, T., Akoojee, S., Allier-Gagneur, Z., Ayika, S., *et al.* 2020. *Technical and vocational education and training in sub-Saharan Africa: A systematic review of the research landscape.* Bonn, Germany:VET Repository, Bundesinstitut für Berufsbildung.

ILO (International Labour Organisation). 2010. *A skilled workforce for strong, sustainable and balanced growth: A G20 training strategy*. Geneva: International Labour Organization.

Ioannidis, J.P. 2012. Why science is not necessarily self-correcting. *Perspectives on Psychological Science*, 7(6): 645–654.

Jacobs, R. & Gassner, L. 2015. Industry's perspective on TVET graduates: A South African study. *Journal of Vocational Education & Training*.

Jahonga, W. M., Ngala, C. & Musera, G. 2024. STEM academic programs & graduate unemployment duration: Reviewing the graduates of national polytechnics in Kenya. *Jumuga Journal of Education, Oral Studies, and Human Sciences*, 7(2).

Johnson, L. 2019. Professional development for vocational teachers: Bridging the industry-education gap. *Journal of Vocational Education Research*, 34(2): 157–175.

Jones, B. & Lee, C. 2020. Problem-solving skills in the workplace: A comprehensive review. *International Journal of Training and Development*, 32(4): 567–580.

Kana, N. & Letaba, P. 2024. The reshaping of curriculum transformation to address the 21st-century skill sets and employment prospects during the Fourth Industrial Revolution era: A case of the South Africa TVET colleges. *South African Journal of Higher Education*, 38(2): 157–175.

Kana, N. & Letaba, P., 2024. The reshaping of curriculum transformation to address the 21st-century skill sets and employment prospects during the Fourth Industrial Revolution era: A case of the South Africa TVET colleges. *South African Journal of Higher Education*, 38(2), pp.157–175. https://doi.org/10.20853/38-2-5628

King, E. 2012. *Comparative studies and educational decision*. Routledge.

King, K. & Palmer, R. 2010. *Planning for technical and vocational skills development*. UNESCO.

Lave, J. & Wenger, E. 1991. *Situated learning: Legitimate peripheral participation*. Cambridge University Press.

Lincoln, Y.S. & Guba, E.G. 1985. *Naturalistic inquiry*. Sage.

Lucas, B., Spencer, E. & Claxton, G. 2012. *How to teach vocational education: A theory of vocational pedagogy*. London: City & Guilds.

Maclean, R. & Wilson, D. (Ed). 2009. *International handbook of education for the changing world of work: Bridging academic and vocational learning*. Dordrecht: Springer.

Mason, M. 2010. Sample size and saturation in PhD studies using qualitative interviews. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 11(3): Art. #8.

Maxwell, J. A. 2012. *Qualitative research design: An interactive approach*. Sage Publications.

Mbeki, T. 2023. ‘Where states fail’ means ‘where public administration and management fail'. *Journal of Public Administration*, 58(4).

McGrath, S. & Yamada, S. 2023. Skills for development and vocational education and training: Current and emergent trends. *International Journal of Educational Development*, 102: 102853.

McGrath, S. & Yamada, S., 2023. Technical and vocational education and training in South Africa: A pathway to decent work or a trap? *Journal of Education and Work*, 36(1): 45−64. https://doi.org/10.1080/13639080.2023.2167392

McGrath, S. 2010. The role of education in development: An educationalist's response to some recent work in development economics. *Comparative Education*, 46(2): 237–253.

Miller, T., Birch, M., Mauthner, M. & Jessop, J. (eds.). 2012. *Ethics in qualitative research*. Sage.

Mohd Salleh, K. & Sulaiman, N. L. 2020. Reforming technical and vocational education and training (TVET) on workplace learning and skills development. *International Journal of Recent Technology and Engineering (IJRTE)*, 8(5): 2964–2967.

Moodley, P. & Singh, R. 2016. National Skills Development Strategy III: Assessing the impact on TVET colleges. *Journal of Vocational Education Research*, 34(3): 221–236.

Muehlemann, S. & Wolter, S.C. 2014. Return on investment of apprenticeship systems for enterprises: Evidence from cost-benefit analyses. *IZA Journal of Labor Policy*, 3: Art. #25.

Mustaffa, M., Tawil, N.M., Selvaratnam, D.P.S., Techanamurthy, U. & Affandi, H.M. 2024. Empowering digital entrepreneurship in technical and vocational education and training (TVET) education. *Jurnal Kejuruteraan*, 36(4): 1459–1466. https://doi.org/10.17576/jkukm-2024-36(4)-11

Neuman, W.L. 2013. *Social research methods: Qualitative and quantitative approaches.* Pearson Education.

Nguyen, P. & Tran, T. 2019. Assessing the alignment of skills and employment in TVET: Student perspectives. *International Journal of Training and Development*, 23(1): 58–72.

Nowell, L.S., Norris, J.M., White, D.E. & Moules, N.J. 2017. Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1).

Odiyo, J.O., Musyoki, A. & Makungo, R. 2022. Skills and knowledge transfer for transitioning into the green economy. In: Odiyo, J.O., Bikam, P.B. & Chakwizira, J. (eds). *Green economy in the transport sector.* Cham: Springer. pp. 65–77.

Ogbuanya, T.C. & Shodipe, T.O. 2022. Workplace learning for pre-service teachers' practice and quality teaching and learning in technical vocational education and training: Key to professional development. *Journal of Workplace Learning*, 34(4): 327–351.

Palinkas, L.A., Horwitz, S.M., Green, C.A., Wisdom, J.P., Duan, N. & Hoagwood, K. 2015. Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5): 533–544.

Patel, L. & Rushe, E. 2020. Evaluating the skills gap in technical and vocational education in emerging economies. *International Journal of Educational Development, 77*: Art. #102202.

Patton, M.Q. 2002. *Qualitative research & evaluation methods*. SAGE.

Paulus, M. T., Garcia Villegas, S. & Howze-Owens, J. 2020. Professional learning communities: Bridging the technology integration gap through effective professional development. *Peabody Journal of Education*, 95(2): 193–202.

Pharamela, S. & Singh-Pillay, A. 2025. Technical and vocational education and training college lecturers and 21st-century skills: Awareness and implications for teaching practices. *Journal of Technical Education and Training*, 17(2): 182–196.

Pilz, M. 2016. *The future of vocational education and training in a changing world*. Wiesbaden: Springer.

Powell, L. & McGrath, S. 2019. *Skills for human development: Transforming vocational education and training*. Routledge.

Psacharopoulos, G. & Patrinos, H.A. 2004. Returns to investment in education: A further update. *Education Economics*, 12(2): 111–134.

Ralushai, M. 2021. *Perspectives on the CET & TVET colleges infrastructure development support (equipment/workshops/connectivity/ICT).* Final report. City Insight.

Resnik, D.B. 2015. *The ethics of research with human subjects: Protecting people, advancing science, promoting trust*. Springer.

Robson, C. & McCartan, K. 2016. *Real world research.* John Wiley & Sons.

Roulston, K. 2010. *Reflective interviewing: A guide to theory and practice*. SAGE.

Rubin, H.J. & Rubin, I.S. 2011. *Qualitative interviewing: The art of hearing data*. SAGE.

Rudhumbu, N. 2021. Implementing the technical and vocational education and training curriculum in colleges in Botswana: Challenges, strategies, and opportunities. *International Journal of Training Research,* 20(2): 160–177. https://doi.org/10.1080/14480220.2021.1990106

Schwab, K. 2016. *The Fourth Industrial Revolution.* Geneva: World Economic Forum.

Sei, B.A. & Challay, S. (2025). Implementation of technical and vocational education and training (TVET) in Bo City: Challenges and prospects. *Sumerianz Journal of Education Linguistics and Literature*, 81: 1–10. https://doi.org/10.47752/sjell.8.1.1.10

Seopetsa, T. 2020. Challenges facing the implementation of public policies in South Africa since the dawn of democracy. *Educor Multidisciplinary Journal*, 4(1): 141–175.

Sibiya, A.T. 2024. Challenges regarding TVET training programs in the SA automotive industry. *International Journal of Training Research*, 1–13. https://doi.org/10.1080/14480220.2024.2369501

Sibiya, S., 2024. Navigating systemic limitations in South Africa's TVET sector: Policy intention versus practical outcomes. *Journal of Technical Education and Training*, 16(3): 92–107. https://doi.org/10.30880/jtet.2024.16.03.008

Smith, B. & McGannon, K.R. 2018. Developing rigour in qualitative research: Problems and opportunities within sport and exercise psychology. *International Review of Sport and Exercise Psychology*, 11(1): 101–121.

Sparks, C.R. 2023. "May the fourth be with you": How will the Fourth Industrial Revolution impact South Africa's labour force? (Master's dissertation, University of the Free State, Bloemfontein, South Africa).

Stake, R.E. 1995. *The art of case study research*. SAGE.

Tan, C. 2021. The impact of COVID-19 on student motivation, community of inquiry and learning performance. *Asian Education and Development Studies*, 10(2): 308–321.

UNESCO. 2015. *Recommendation concerning technical and vocational education and training (TVET)*. Paris: UNESCO.

Wheelahan, L. 2007. How competency-based training locks the working class out of powerful knowledge: A modified Bernsteinian analysis. *British Journal of Sociology of Education*, 28(5): 637–651.

Winch, C. 2013. The attractiveness of TVET. In: Maclean, R. & Wilson, D.N. (eds). *International handbook of education for the changing world of work*. Dordrecht: Springer. pp. 283–295.

World Bank. 2012. *Skills development for economic growth*. World Bank Publications Vol. 2. World Bank Publications.

World Economic Forum. 2016. *The future of jobs: Employment, skills and workforce strategy for the Fourth Industrial Revolution*. Geneva: World Economic Forum. https://www3.weforum.org/docs/WEF_FOJ_Executive_Summary_Jobs.pdf

Ye, J., He, Z., Bai, B. & Wu, Y. 2024. Sustainability of technical and vocational education and training (TVET) along with vocational psychology. *Behavioral Sciences*, 14(10): 859. https://doi.org/10.3390/bs14100859

Yin, R.K. 2014. *Case study research: Design and methods*. SAGE.

.

Appendix A: Semi-structured Interview Guide

Interview Guide

Section 1: Demographic Information

1. What is your age?
2. What gender do you identify with?
3. What program have you enrolled in or graduated from at Letaba TVET College, Maake Campus?
4. How long have you been (or were you) enrolled in your program?
5. Are you employed, seeking employment, or continuing your studies?

Section 2: Factors Affecting Skills Development

1. Can you describe any challenges you faced while trying to develop your skills at Letaba TVET College?
2. How do you feel the curriculum at Letaba TVET College prepares students for the job market?
3. Have you encountered any limitations in resources or facilities that have impacted your skills development? Can you provide examples?
4. In your opinion, what are the key areas where Letaba TVET College's skills development programs could be improved?
5. Reflecting on your time at the college, can you identify any external factors (such as industry changes or economic conditions) that significantly affected your skills development process?

Section 3: Students' Expectations and Experiences

1. What were your initial expectations regarding skills development when you enrolled at Letaba TVET College, and how have these expectations been met or changed?
2. Can you share a particularly positive or negative experience related to skills development during your time at the college?
3. How do you perceive the quality of teaching and the relevance of the course content in relation to skills development?

4. How well do you think the skills you developed at Letaba TVET College align with the demands of your desired job market or industry?
5. Have you had the opportunity to apply the skills learned in real-world situations or work placements? Please describe these experiences.

Section 4: Impact on Aspirations

1. How has your experience with skills development at Letaba TVET College influenced your career aspirations?
2. Do you feel equipped to pursue your desired career path after completing your program? Why or why not?
3. Has your understanding of your chosen industry or field changed as a result of your studies? How so?
4. How confident are you in your ability to secure employment or advance in your career with the skills developed at Letaba TVET College?
5. Can you describe any long-term goals that have been shaped by your skills development experiences at the college?

Section 5: Experiences of Acquiring Skills Development

1. Can you describe the teaching methods or approaches at Letaba TVET College that you found most effective for skills development?
2. How supportive have the faculty and staff been in your pursuit of skills development?
3. Are there any particular programs, workshops, or extracurricular activities offered by Letaba TVET College that significantly contributed to your skills development? Please provide details.
4. Reflecting on your entire experience, what aspect of Letaba TVET College's skills development program do you value the most, and why?
5. Looking back, what advice would you give to new students entering your program about maximizing their skills development opportunities at Letaba TVET College?

Appendix B: Participant Consent Form

UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA
UFS

Consent to participate in this study

I, the undersigned,

_____

(participant's full names to be included), (the "Participant")
confirm that I voluntarily agree to participate in the research study referred to as the

_____ (the "Study") in relation to

_____

and which Study is being conducted by

_____

(Insert the name of the researcher), (the "**Researcher**").

I, the undersigned Participant, further confirm that–

1. the Researcher has explained the nature, procedure, potential benefits and anticipated inconvenience of my participation in the Study;
2. I have read (or had explained to me) and understood the Study as explained in the attached information sheet;
3. I have had sufficient opportunity to ask questions and am prepared to participate in the Study;
4. I understand that my participation in the Study is entirely voluntary and that I am free to withdraw at any time without penalty (if applicable);
5. I voluntarily provide the UFS and the Researcher with my personal information and consent to the UFS and the Researcher collecting, disclosing and processing my personal information in order to conduct the Study and any related activities in relation thereto;
6. I hereby acknowledge and confirm that I understand the purpose for which the UFS and the Researcher may collect, store, use, delete, destroy, outsource, transfer or otherwise process, as the context and circumstances may require and as contemplated in terms of POPIA, my personal information as set out herein;
7. I am aware that the findings of the Study will be anonymously processed into a research report, journal publications and/or conference proceedings and that my personal information will be aggregated and deidentified at such stage;
8. I also give the UFS permission to share, without notification, the collected data with other researchers at the UFS or other Higher Education Institutions. This permission is dependent on the same principles of ethical research practices, anonymity/confidentiality, safekeeping of information, and other issues listed above applying.

I, the Participant, agree to the recording of the <insert specific data collection method>.

Full Name of Participant: _____

Signature of Participant: _____ Date: _____

Full Name(s) of Researcher(s): _____

Signature of Researcher: _____ Date: _____

Appendix C: UFS Ethical Approval

UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA

UFS

GENERAL/HUMAN RESEARCH ETHICS COMMITTEE (GHREC)
Registration Number: REC-112922-058

04-Sep-2024

Dear Mr Mmankwana Thobela

Application Approved

Research Project Title:
Skills Development of Technical and Vocational Education and Training (TVET) Students: A Letaba TVET College case study, Maake Campus.

Ethical Clearance number:
UFS-HSD2024/1042

We are pleased to inform you that your application for ethical clearance has been approved. Your ethical clearance is valid for twelve (12) months from the date of issue. We request that any changes that may take place during the course of your study/research project be submitted via an Amendment on RIMS to the ethics office to ensure ethical transparency. Furthermore, you are requested to submit a Final Report on RIMS for your study/research project to the ethics office once the project has concluded. Should you require more time than the allotted 12 months to complete this research, please apply for an extension by submitting a Continuation/Report on RIMS. Thank you for submitting your proposal for ethical clearance. We wish you success with your research.

Yours sincerely,

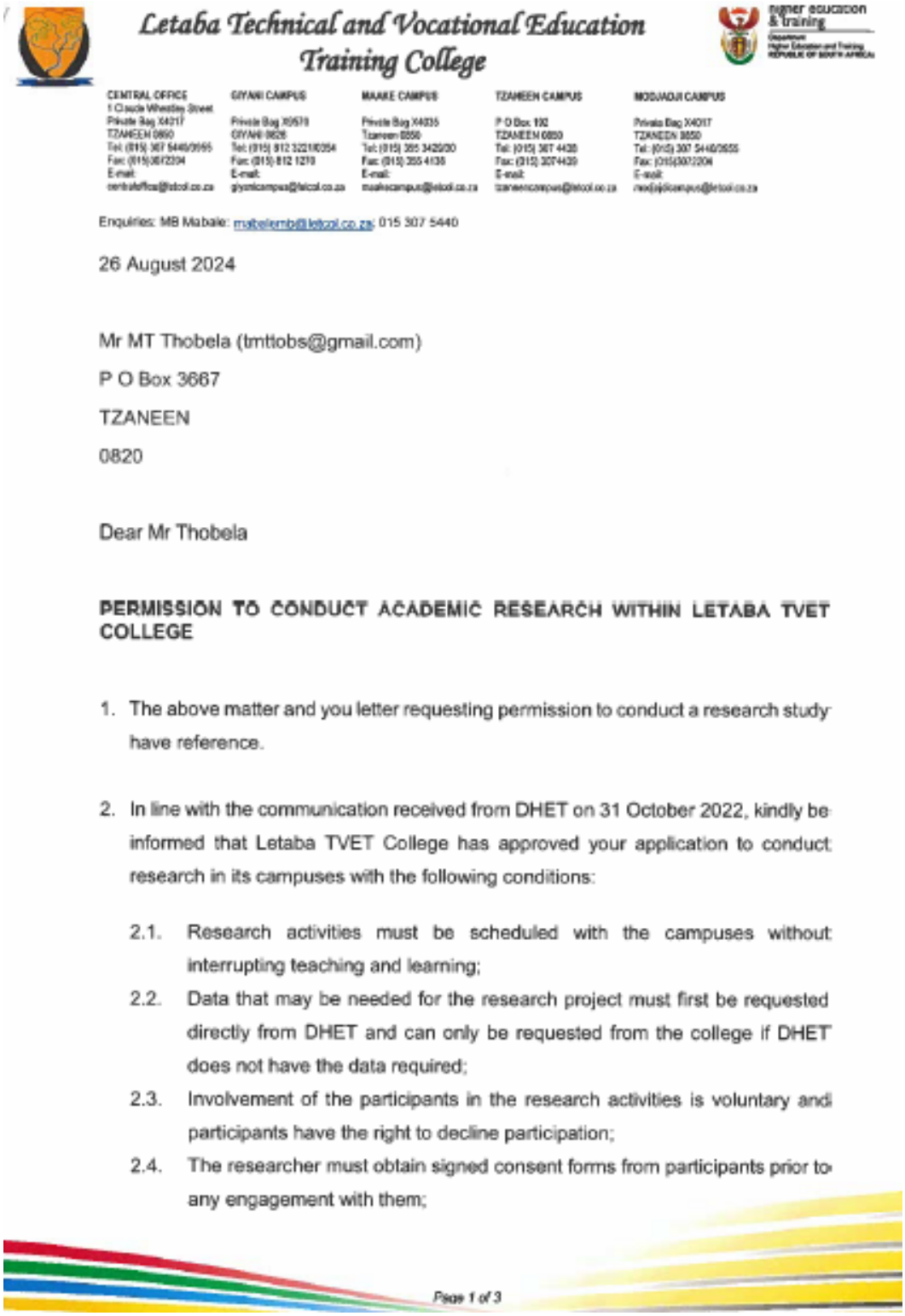
Dr Adri Du Plessis
Chairperson: General/Human Research Ethics Committee

Dr Adri du Plessis
Digitally signed by Dr Adri du Plessis
Date: 2024.09.08 19:27:42 +02'00'

205 Nelson Mandela Drive
Park West
Bloemfontein 9301
South Africa

P.O. Box 339
Bloemfontein 9300
Tel: +27(0)514019337
duplessisA@ufs.ac.za
www.ufs.ac.za

Appendix D: Permission by Letaba TVET College



Letaba Technical and Vocational Education Training College

higher education & training

CENTRAL OFFICE
1 Claude Wheatley Street
Private Bag X4017
TZANEEN 0850
Tel: (015) 307 5440/0555
Fax: (015)3072204
E-mail:
centraloffice@letcol.co.za

GIYANI CAMPUS
Private Bag X0570
GIYANI 0826
Tel: (015) 812 3221/0354
Fax: (015) 812 1219
E-mail:
giyanicampus@letcol.co.za

MAAKE CAMPUS
Private Bag X4035
Tzaneen 0850
Tel: (015) 305 3429/30
Fax: (015) 305 4139
E-mail:
maakecampus@letcol.co.za

TZANEEN CAMPUS
P O Box 192
TZANEEN 0850
Tel: (015) 307 4430
Fax: (015) 307 4439
E-mail:
tzaneencampus@letcol.co.za

MODJADJI CAMPUS
Private Bag X4017
TZANEEN 0850
Tel: (015) 307 5440/0555
Fax: (015)3072204
E-mail:
modjadjicampus@letcol.co.za

Enquiries: MB Mabale: mabelemb@letcol.co.za; 015 307 5440

26 August 2024

Mr MT Thobela (tmttobs@gmail.com)

P O Box 3667

TZANEEN

0820

Dear Mr Thobela

PERMISSION TO CONDUCT ACADEMIC RESEARCH WITHIN LETABA TVET COLLEGE

1. The above matter and you letter requesting permission to conduct a research study have reference.

2. In line with the communication received from DHET on 31 October 2022, kindly be informed that Letaba TVET College has approved your application to conduct research in its campuses with the following conditions:

   2.1. Research activities must be scheduled with the campuses without interrupting teaching and learning;
   2.2. Data that may be needed for the research project must first be requested directly from DHET and can only be requested from the college if DHET does not have the data required;
   2.3. Involvement of the participants in the research activities is voluntary and participants have the right to decline participation;
   2.4. The researcher must obtain signed consent forms from participants prior to any engagement with them;

Page 1 of 3

CENTRAL OFFICE
1 Claude Wheatley Street
Private Bag X6017
TZANEEN 0850
Tel: (015) 307 5440/3955
Fax: (015)3072204
E-mail:
centraloffice@letcol.co.za

GIYANI CAMPUS
Private Bag X9570
GIYANI 0826
Tel: (015) 812 3221/6354
Fax: (015) 812 1213
E-mail:
giyanicampus@letcol.co.za

MAAKE CAMPUS
Private Bag X4035
Tzaneen 0850
Tel: (015) 355 3429/30
Fax: (015) 355 4138
E-mail:
maakecampus@letcol.co.za

TZANEEN CAMPUS
P O Box 192
TZANEEN 0850
Tel: (015) 307 4438
Fax: (015) 3074438
E-mail:
tzaneencampus@letcol.co.za

MODJADJI CAMPUS
Private Bag X4017
TZANEEN 0850
Tel: (015) 307 5449/3995
Fax: (015)3072204
E-mail:
modjadjicampus@letcol.co.za

2.5. Written parental consent of the student under 18 years of age must be obtained, if they are expected to participate in research activities;

2.6. The use of monitoring devises such as tape recorders and cameras must be made explicit prior to engagement with the participants, and participants should be free to reject them if they wish;

2.7. Resources of the college must not be used for the research activities;

2.8. The right of participants to privacy, anonymity, confidentiality and responses for human dignity must be honored at all times. Participants should not be identifiable in any way from the result of the research, unless written consent is obtained otherwise;

2.9. The name of the college, or participants must not appear in the research report without the written consent of each participants and /or college

2.10. The draft report must be sent to research participants before finalization in order to provide the college with the opportunity to validate the accuracy of the information in the report;

2.11. The research report must include a disclaimer indicating that the findings and recommendations arising from the investigation do not represent the views of the college or DHET and

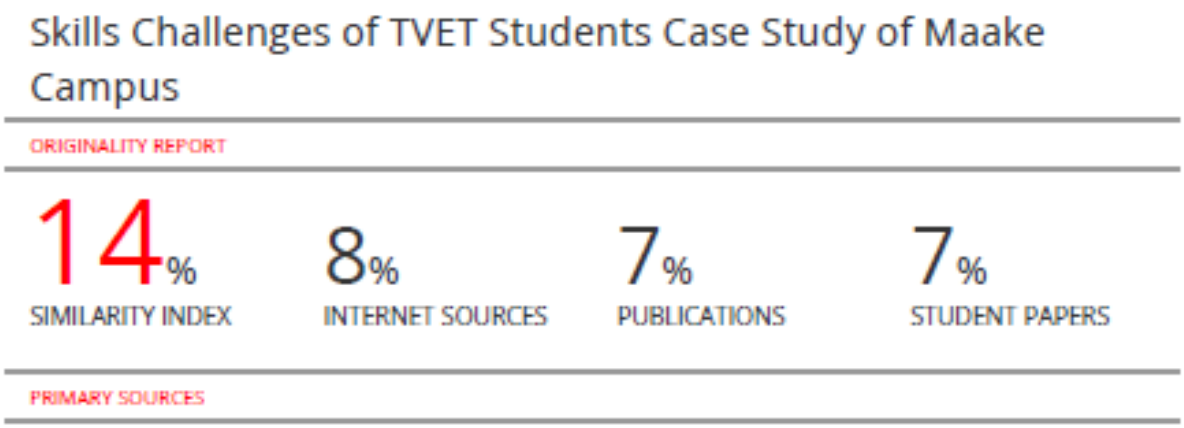
2.12. A summary of the findings of the research report must be provided to the College Principal for information purposes.

3. You are advised to make arrangement with the participants in order to discuss the research schedule. The following are the contact details of Campus coordinator.

3.1. Maake Campus Coodinator : Ms Bopape 064 873 3895 or bopapems@letcol.co.za

4. The College wishes you well in your studies.

Appendix E: Turnitin Report



Skills Challenges of TVET Students Case Study of Maake Campus

ORIGINALITY REPORT

14%	8%	7%	7%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

Appendix F: Language Editor's Letter

17 Fallopius Street, Bloemfontein
+(27) 076 081 0730
info@rephraseit.co.za

06 August 2025

Student: **Mmankwana Thomas Thobela**
Student number: **2020864530**

I declare that I language edited the master's dissertation titled, *Skills Development of Technical and Vocational Education and Training (TVET) Students: A Letaba TVET College Case Study, Maake Campus*

During the editing process, I looked for and corrected spelling, grammar, punctuation, paragraph and syntax errors. Where I noticed inconsistencies or unclarities in the text, I made comments to draw the author's attention to the inconsistency or unclarity. I also made suggestions where changes could be made. Lastly, I double-checked the references in the text and in the reference list to make sure that they are consistent throughout. Where sources or source information were still missing, I indicated such to the author so that he could locate and add the missing information.

Disclaimer: The ultimate responsibility for accepting or rejecting the changes and recommendations rests with the student and I cannot be held responsible for any layout or language issues that might have emerged as a result of subsequent amendments to the text.

Yours sincerely

Johannes Pieter Odendaal