

**Exploring the collaboration between Zambian Technical Education, Vocational
and Entrepreneurship training institutions and industry**

by

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Ethical clearance certificate



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.....

Pilira Tembo

29 August 2023

Dedication

Many thanks to God Almighty for being my source of wisdom, comfort, and strength during this long journey's good and bad moments. His grace, love and provisions were indeed sufficient throughout the journey.

I dedicate this research to my mother, mentor, and inspiration, Mrs. Mary Tembo-Mwale, who has been my all seasons pillar in my academic journey. Through her constant support, I have excelled in my academic life and most of my endeavours.

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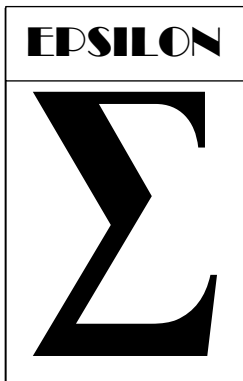
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Language editor



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TO WHOM IT MAY CONCERN

This is to confirm that I have completed the language editing of the thesis **Exploring the collaboration between Zambian technical education, vocational and entrepreneurship training institutions and industry** by Pilira Tembo submitted in partial fulfilment of the requirements for the degree of Philosophiae Doctor in the Faculty of Education at the University of Pretoria.

Yours faithfully

Isobet Oberholzer

4 August 2023

Abstract

Owing to manifold mismatches between the skills produced by TEVET institutions and the skills required by the labour industry, this study explored the collaboration between the Zambian Technical Education, Vocational and Entrepreneurship Training (TEVET) institutions and industry in enhancing skills development. Zambian policy documents on education suggest that there must be successful linkages between skills development stakeholders but do not suggest how these linkages must be developed and maintained. Additionally, the evolving technologies demand that skills providers constantly contact the industry to fully understand their ever-changing labour needs. Therefore, this phenomenological study aimed to generate literature that may inform policy development to guide meaningful collaborations between TEVET stakeholders. The generation of literature was achieved by exploring the existing collaborative activities, factors affecting successful collaboration, existing policies on skills development and the importance of collaboration between TEVET stakeholders.

This study used a qualitative methodology to collect data on collaboration between TEVET institutions and industry. Specifically, hermeneutic, also known as interpretive phenomenology, advanced by Martin Heidegger was used to explore collaboration experiences as lived by selected participants in the study. Face-to-face interviews and online focus group discussions were utilised to collect data. These strategies allowed me to explore the in-depth perceptions, understanding and feelings of those people at the centre of the collaboration. A purposive sampling strategy was utilised to select participants as it guarantees the selection of the most relevant participants. The sample consisted of knowledgeable individuals who were directly involved in the collaboration and willing to share their experiences. The study revealed relevant issues affecting successful collaboration between TEVET institutions and the industry. It helped identify the crucial roles of TEVET graduate employers, institutional administrators, and policy developers in enhancing skills development whilst coping with the ever-changing technologies and labour needs. The study underscored the importance of sufficient guidelines, benefits, incentives, communication, transparency, and commitment in enhancing educational interactions. The study concluded that successful collaboration between training institutions and industry is crucial in the

generation of the quality skills required to meet the ever-changing demands of the labour industry.

Key Terms:

TEVET institutions; College-industry collaboration; job creation; labour market; social exchange theory; technical education; vocational and entrepreneurship training.

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Abbreviations

ADB	Asian Development Bank
CDF	Constituency development fund
CPD	Continuing professional development
CPDs	Continuing professional development programmes
CTEVT	Commission for Technical Education and Vocational Training
EBT	Employer-based training
ECCDE	Early Childhood Care, Development and Education
CEDEFOP	European Centre for the Development of Vocational Training
ECZ	Examinations Council of Zambia
FET	Further Education and Training
FNDP	Fifth National Development Plan
HDI	Human Development Index
ICT	Information and Communication Technology
ILO	International Labour Organization
ITIs	Industrial Training Institutes
MHE	Ministry of Higher Education
MNDP	Ministry of National Development and Planning
MOUs	Memoranda of Understanding
MSTVT	Ministry of Science Technology and Vocational Training
PEOs	Provincial education officers

PPPs	Public-private partnerships
RPL	Recognition of Prior Learning
SDF	Skills Development Fund
SDL	Skills Development Levy
SNDP	Seventh National Development Plan
SNSs	Social networking sites
SNDP	Sixth National Development Plan
TEVET	Technical Education, Vocational and Entrepreneurship Training.
TEVT	Technical Education and Vocational Training
TEVETA	Technical Education, Vocational and Entrepreneurship Training Authority
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNESCO- UNEVOC	UNESCO's Centre for Technical and Vocational Education and Training
VET	Vocational education and training
WBE	Work-based education
WB	World Bank
WBT	Work-based training
WEF	World Economic Forum
WIL	Work-integrated learning

ZCTVET	Zambian Commission for Technical and Vocational Education and Training
ZNQF	Zambian National Qualifications Framework
ZTEVET	Zambian Technical Education, Vocational and Entrepreneurship Training

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

We live in an age of technological achievement. If the Nation is to serve itself and play an effective and productive role in the world community, it must itself be prepared to train its people, not only to use but to maintain and create the technical apparatus which increasingly supports the modern community. If we rely entirely upon foreign expertise, we risk becoming the slaves of technology rather than its enslaver. It is imperative that Zambia now completes its total educational programme and provides training in technical and occupational fields, giving the trainee those marketable skills demanded by the industry. I dream that Zambia will be technically competent to serve the needs of its industry and furtherance of Zambia's development.

The extract above is a foreword written by Dr. Kenneth David Kaunda, the first republican president of Zambia, to the Technical Education and Vocational Training (TEVT) Statement of Policy and Intent of 1969 (ZCTEVT, 1969). The statement of policy and intent emanated from the departure of several expatriates shortly after Zambia gained its independence, leaving the country with a great demand for local skilled human resources. The foreword emphasised the crucial role of providing skills as demanded by the industry, a quest Zambia has struggled to fulfil since its independence in 1964. Unfortunately, sub-Saharan Africa, to which Zambia belongs, has continued to experience supply and demand issues to which the present form of post-school cannot respond adequately (Papier, Gessler & Duncan, 2017).

Zambia had developed a vibrant demand-driven skills system through the TEVT Statement of Policy and Intent of 1969 and the TEVT Act of 1970. However, 27 years later, the Zambian labour industry was still unsatisfied with the quality of graduates from TEVT institutions. As a result, the TEVT Policy of 1969 was revised in 1996. The policy changed its name from TEVT to Technical Education, Vocational and

Entrepreneurship Training (TEVET) Policy. The rationale behind the revision of the policy was to make it more responsive to the contemporary training demands in the economy. According to this policy, the employment sector had not been completely satisfied with the quality of trained human resources available for the various operations in the industries that require vocational skills (Ministry of Science Technology and Vocational Training, 1996: ii).

In 2020, the TEVET Policy of 1996 was again revised, and the TEVET Policy 2020 was promulgated. Remarkably, the 1996 Policy was revised “in recognition that for the country to attain the Vision 2030, it needs highly skilled and competent citizens” (TEVETA, 2021: 3). This revision indicates how producing highly skilled graduates and industry-driven skills has been a persistent challenge to Zambia. All three highlighted policies suggest that implementation, efficiency, and effectiveness can be achieved through stakeholder collaboration. Apart from these three policy documents, Zambia has had several national policies that outlined TEVET’s crucial role in national development. Policies include the 1977 Educational Reforms, the 1992 Focus on Learning, the 1996 Educating Our Future, the 2003-2007 Ministry of Education Strategic Plan, the Vision 2030, and the seven (7) National Development Plans, among others. The country does not lack policies to guide the provision of the required skills. However, it needs to work on effectively and efficiently implementing these policies. Furthermore, the policies do not stipulate clear guidelines for executing collaboration among TEVET stakeholders. Hence, this study was needed to explore the lived experiences of the significant stakeholders of TEVET to generate guidelines on how collaboration between training institutions and industry could be enhanced.

Understanding the collaboration between TEVET institutions and industry in enhancing the quality of TEVET skills development would be incomplete without appreciating the genesis and milestones of trade schools in Zambia. Trade schools officially stem from the Northern Rhodesia¹ government’s intention to increase the supply of qualified, skilled labour (Kelly, 1999). Initiated by various mission groups, technical and vocational education was, throughout the colonial era, attached to

¹ Northern Rhodesia is the former name for the now independent country of Zambia, which was then a British protectorate in south-central Africa.

mission schools, industrial arts departments or the so-called industrial arts, which were taught concurrently with other forms of subjects in the regular school system (Mwanakatwe, 2013). The schools had been designed to provide essential vocational preparation for prospective workers in the construction industry. Specifically, the schools offered three-year training programmes in bricklaying and carpentry.

The decline of world copper prices in the 1990s led to several economic and educational challenges.² The technical education and vocational training (TVET) sector faced insufficient training funding, which led to a drastic fall in training standards, and most TEVT graduates could not find jobs in the formal sector (Mukuni, 2020). As a result, trade schools were not considered the main channel for selecting skilled workers for the construction industry. The training was poorly funded, but it was also generally conducted in low esteem resulting from poor infrastructure and severe racial discrimination. According to Mwanakatwe (2013) and Kelly (1999), technical education and vocational training institutions failed to produce the required quantity and quality of graduates for the following reasons:

- a. Uncertainty of what, when and how vocational and technical training must be conducted;
- b. Difficulties in retaining highly skilled teaching and or training staff;
- c. Use of outdated equipment for practical subjects;
- d. Lack of adequately coordinated collaboration between employers and training institutions;
- e. Low participation of women;
- f. Reduction in funding towards training equipment and other running costs; and
- g. Failure to produce skills as demanded by employers.

It should be noted that the issue of technical education and vocational training's failure to produce skills that are responsive to the needs of society is neither new nor a long-standing issue in Zambia alone. The relatively low standing of vocational education

² "The majority of skills training graduates could not find employment in the formal sector, whose labour force by 1995 had shrunk to about 30%. There was a general perception among some employers that the students that managed to find jobs did not have the right competences required by the labour market" (Mukuni, 2020: 1).

and training (VET) is of “global concern, as it impacts young people’s engagement in this crucial educational sector and the occupations it serves” (Billett, Choy & Hodge, 2020: 270). This study presents evidence from various local and international studies on technical education and vocational training challenges in producing industry-driven skills. Manifold mismatches have emerged where, for example, “on the one hand, the craft and manufacturing sectors desperately look for skilled workers, and on the other hand, young job starters cannot find adequate employment” (Pilz, 2016: 16). This study critically analysed the role of collaboration in reducing such mismatches. Owing to these skills mismatches in technical education and vocational and entrepreneurship training (TEVET), this study focused on collaboration between Zambian technical education and vocational and entrepreneurship training (ZTEVET) institutions and the labour industry. This study concentrated on technical, vocational and entrepreneurship skills (as per the Zambian context) acquired through officially recognised technical education and vocational and entrepreneurship training (TEVET) institutions in Zambia.

Apart from the skills mismatch challenge, technical and vocational education also has had an image of inferiority in many parts of the world (Agrawal & Agrawal, 2017; Meyer, 2019). It seems to be the choice for those with little or no choice, young people with poor academic records and low ambitions, socially disadvantaged youth, and those at risk of not completing their studies (European Centre for the Development of Vocational Training, 2019). This is further exacerbated by parents refusing their children to take technical and vocational courses because of the perceived inferiority attached to such courses. Additionally, TEVET graduates must be prepared to work in poorly paid and less prestigious jobs and have a career that is not promising regarding further education and career advancement (European Centre for the Development of Vocational Training, 2019).

Conversely, some larger economies, such as Germany and China, have developed because of the contribution of technical and vocational skills to economic development. According to Hummelsheim and Baur (2014), Germany is an example of a developed country with an advanced vocational education and training system, one that other countries admire and would like to adopt. Technical education and vocational and entrepreneurship training (TEVET) transforms lives by equipping

students with productive capacities to enable them to contribute effectively to the economy. Additionally, income gaps among countries are primarily explained by differences in productivity enhanced through skilled labour. Therefore, technical education and vocational and entrepreneurship training might be an alternative solution to increase productivity through developing skilled labour. As such, improving the quality of vocational education and training (VET) is a concern of most countries (Billett et al., 2018).

Conclusively, advanced research on collaboration between technical and vocational education and training institutions and their stakeholders suggests that TEVET stakeholders, including college administrators, seem not to understand their roles in ensuring compliance regarding work-based education (WBE) (Ngubane, Mncube & Olaniran, 2021). This lack of understanding reveals insufficient guidelines and policies on stakeholder collaboration. More importantly, there is a need to maintain strong ties with the industry or host employers if technical education and vocational and entrepreneurship training must respond to the needs of the industry (Asplund & Kilbrink, 2018). Therefore, this study sought to establish the roles of selected technical education and vocational and entrepreneurship training (TEVET) stakeholders in Zambia in enhancing skills development by critically analysing the current collaborative activities and suggesting guidelines that may inform policy on collaboration between TEVET stakeholders.

1.2 DEFINITION OF KEY CONCEPTS

This section provides working definitions of the key concepts as utilised in the study. Further details on the concepts are discussed and elaborated in the next chapter on literature review.

1.2.1 Technical education, vocational and entrepreneurship training (TEVET)

This study adopted the definition by Rawkins (2018: 1), which defines TEVET as “the study of technologies and related sciences and acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic life.”

1.2.2 Collaboration

In this study, collaboration refers to the relationship between TEVET institutions, government and industries meant to enhance the development of quality TEVET skills.

1.2.3 Collaboration requirements

These are the guidelines for collaboration set by the government, educational institutions, and industry in policies.

1.2.4 TEVET institutions

TEVET institutions represented registered training institutions providing technical and vocational training leading to qualifications up to Level 4 of the TEVET qualifications framework.

1.2.5 TEVET lecturer and TEVET trainer

A TEVET lecturer refers to an academic staff member who imparts theoretical and practical technical and vocational skills.

Omar et al. (2021) description of a TEVET trainer as a trained teacher with an industrial background in a related field and is employed to provide practical skills was adopted.

1.2.6 Construction skills

These referred to construction skills in Zambian TEVET institutions such as plumbing, carpentry, joinery, bricklaying, plastering, welding and electrical power engineers.

1.2.7 Industry

The industry refers to the employers of TEVET graduates or trainees specialising in construction skills.

1.2.8 TEVET stakeholders

TEVET stakeholders referred to lecturers, students, employers, policymakers, funders and everyone involved in the provision and success of technical and vocational training.

1.3 PROBLEM STATEMENT

A research problem is an issue or concern that needs to be addressed coming from a void in the literature, topics that have been neglected in the literature, and conflict in the literature; a need to lift the voice of marginalised participants and real-life problems found in the workplace, the home, the community and other places (Creswell & Creswell, 2018). According to Lolwana

...besides being small, the TEVET sector in most sub-Saharan countries is characterised by a significant lack of practical relevance and responsiveness to labour market needs, insufficient infrastructure and equipment and extremely low throughputs. (Cited in Eicker, Haseloff & Lennartz, 2017: 11)

In Zambia, there is sufficient literature on such TEVET-related challenges. For instance, a baseline survey was conducted by the Commonwealth of Learning between mid-June and early October 2015 to establish direct contact with potential TEVET partner institutions to gather basic statistics on their operations and facilities. In addition, this survey sought to identify the challenges TEVET institutions in Zambia face and to assess the need for capacity building among the staff members (Du Vivier, 2016).

Among others, the survey revealed the following challenges:

- there was insufficient information about the changing demands of the labour market;
- training programmes were generally not responsive to market needs;
- low priority was given to training workers in the informal economy;
- there was poor quality of instruction because many lecturers did not have relevant and appropriate experience in the industry and lacked pedagogical qualifications; and
- existing training facilities were underutilised.

In view of the above challenges facing Zambian TEVET institutions, it was established that there exists an information gap between the skills development providers and the industry. This gap explained the TEVET institutions' failure to provide skills that are responsive to the needs of the labour market. Additionally, a study by Mwila (2016)

revealed a gap in the Zambian policy and literature on collaborative activities that can enhance the development of quality skills as demanded by the labour market. The study recommended further research on collaboration between training institutions and stakeholders to address this skills gap. Therefore, this research sought to fill the gap in the literature on the critical roles of major TEVET stakeholders and to develop guidelines that might inform policy to facilitate successful collaboration between the stakeholders.

1.4 RATIONALE

To improve the quality of skills development, the need for institutional-workplace collaboration (IWC) has become a recurring theme in recent VET developments (Arinaitwe, 2021). Reviewed literature on the Zambian national skills development policies suggests insufficient guidelines on how collaborative activities between TEVET stakeholders must be carried out. Policies such as the Fifth National Development Plan, Vision 2030, the Seventh National Development Plan and the TEVET Policy of 2020 suggested that there must be successful linkages between skills development stakeholders. However, they did not suggest how these linkages must be developed and maintained. Furthermore, the arrival of new digital technologies continuously evolve at a speed and degree that interrupt social relations, the manner of conducting business, and, more generally, our ways of thinking (Enaifoghe, 2021). To respond to the needs of the Zambian labour market, TEVET institutions must align themselves with the ever-changing demands of the labour market. However, this alignment can only be achieved through a meaningful collaboration between TEVET institutions and their stakeholders. Therefore, this study sought to generate literature on collaboration between TEVET stakeholders to inform policy development to guide meaningful collaboration.

1.5 RESEARCH AIM AND OBJECTIVES

The aim of this study was to explore the role of collaboration between the Zambian TEVET institutions and the industry in enhancing skills development.

The following specific objectives guided the study:

- a. To identify and describe the existing collaborative activities between TEVET institutions and industry.
- b. To understand the influence of existing collaborative activities on the quality of skills acquired by the students.
- c. To analyse the influence of existing policies on skills development on collaboration between TEVET institutions and industry.
- d. To explore the importance of successful collaboration between TEVET institutions and industry in enhancing skills development.

1.6 PURPOSE OF THE RESEARCH

This phenomenological study aimed to generate literature that may inform policy development to guide meaningful collaborations between TEVET stakeholders. The study achieved this by analysing the existing collaborative activities, factors affecting successful collaboration, existing policies, and the importance of collaboration between TEVET institutions and their stakeholders. Collaboration was generally defined as working together to improve the quality of graduates produced by TEVET institutions. TEVET lecturers, TEVET standards officers, students, and employers from the construction industry from three provinces were interviewed: Lusaka, Southern and Eastern.

1.7 RESEARCH QUESTIONS

The main research question that guided this study was:

- What is the role of collaboration between the Zambian TEVET institutions and the industry in enhancing skills development?

The following sub-questions were formulated to supplement the main research question:

- a. What are the existing collaborative activities between TEVET institutions and industry?
- b. How do the existing collaborative activities influence the quality of skills acquired by the students?
- c. How does existing policy on skills development influence collaborations

between TEVET institutions and industry?

- d. Why is a successful collaboration between TEVET institutions and industry important in enhancing skills development?

1.8 THEORETICAL AND CONCEPTUAL FRAMEWORK

Theoretical and conceptual frameworks in research serve as guides through which a researcher collects and analyses data. In this study, the social exchange theory (SET) was utilised to explore the social aspect of how collaborations are formed and sustained. SET is one of the most prominent conceptual perspectives in management and related fields like sociology and social psychology (Cropanzano et al., 2017). The theory was used to explore the economic value of collaborations by examining the expected benefits of collaborations. Some researchers have argued that the SET is merely a frame within which many theories can speak to one another, making it applicable in all situations regarding relationships (Emerson, 1976). As a conceptual framework, the study identified policies and collaborative activities as critical concepts. Therefore, the study analysed the role of policies and social structure in influencing TEVET stakeholder roles and collaborative activities.

1.9 VALUE OF THE RESEARCH

This study revealed pertinent issues affecting successful collaborations between the TEVET institutions and the industry. By studying the experiences of selected stakeholders of TEVET, the study has added to the knowledge of collaborations between TEVET institutions and industry and the philosophical understanding of how successful collaborations are developed and sustained. The study may benefit the following:

1.9.1 TEVET graduate employers

Data collected from the study may inform employers of channels that can be used to engage TEVET institutions on how to produce graduates who can resolve the skills gap in the labour industry. Furthermore, the study's findings may further inform employers of students' challenges during institutional- and work-based training. This information is crucial as employers would then know which areas they should prioritise should they want to help the training institutions carry out their routine social corporate

responsibilities.

1.9.2 TEVET institution administrators

Data collected from this study may help inform administrators on how best to engage employers on curriculum development, revision and implementation, and continuing professional development programmes (CPDs) for lecturers.

1.9.3 TEVET policy developers

The study may also contribute significantly to literature that may inform policy development on how collaborations between training institutions and industry must be managed by outlining the specific roles that each stakeholder is expected to play in improving the quality of skills development.

1.9.4 Researchers

The study might provide researchers with additional literature on social structures and forces in enhancing educational interactions.

1.10 RESEARCH PARADIGM

This study being qualitative research, it is necessary to discuss the paradigm representing the framework within which I organised the entire study. A paradigm constitutes the abstract beliefs and principles that shape how a researcher sees the world and how s/he interprets and acts within that world (Kivunja & Kuyini, 2017). A paradigm is thus crucial in guiding the researcher's choice of methods and how to interpret the results. Creswell and Poth (2018) explained that it is vital to understand the philosophical assumption behind a study to assess the overall research process.

This study on collaboration followed the social constructivist worldview. According to Creswell (2014a), social constructivists hold assumptions that individuals seek to understand the world in which they live and work. The leading principle is that our world and place are not simply and evidently there but rather variably brought into being (Denzin & Lincoln, 2011). Everyday realities are actively constructed in and through forms of social action.

The paradigm has been criticised for becoming too diverse and diffuse to adequately

define and assess, resulting from the fact that constructionism can be applied to virtually every research approach imaginable (Denzin & Lincoln, 2011). Constructionism resists a single portrait but is better understood as a mosaic of research efforts with diverse but also shared philosophical, theoretical, methodological, and empirical underpinnings. It lies in the belief that the criteria for judging either reality or validity are not absolutist; instead, they are derived from community consensus regarding what is real, what is useful and what has meaning within that community as well as for that particular piece of research (Denzin & Lincoln, 2018). Meaning is constructed based on our interactions with our surroundings. Therefore, we cannot separate ourselves from what we know. Our lived experiences will always come out in the knowledge we generate as researchers and in the data generated by our subjects.

1.11 RESEARCH METHODOLOGY

The study used qualitative methodology to collect and analyse data on collaborations between TEVET institutions and the industry. The study adopted the definition of qualitative research by Aspers and Corte (2019). They defined qualitative research as an iterative process in which an improved understanding of the scientific community is achieved by making new significant distinctions resulting from getting closer to the phenomenon studied. Qualitative research is also utilised to identify different definitions of a problem or situation being evaluated (Denzin, 2017). Using qualitative methodology thus helped me to provide a holistic and in-depth account of the collaboration between Zambian TEVET institutions and the industry by unpacking the meanings TEVET stakeholders ascribed to various collaborative activities and policies aimed at enhancing the quality of skills development.

1.12 RESEARCH DESIGN

Phenomenological research is a strategy of inquiry in which the researcher identifies the essence of human experiences about a phenomenon as described by participants (Creswell, 2014a: 13). Like the constructivist paradigm, this design recognises that a researcher's background shapes his or her interpretation of phenomena. It is essential to realise that the others in our experience are no less our construction than everything else (Von Glasersfeld, 2013: 5). Therefore, reality can only be socially and personally

constructed, and the subject should be actively involved. Using phenomenology helped me to investigate lived rather than conceptualised experiences of TEVET stakeholders in respect of collaboration. Specifically, the study employed hermeneutic phenomenology because, unlike transcendental phenomenology, the former allows it to get combined with other theories.

1.12.1 Sampling

The study employed purposive sampling to select participants. Specifically, the study used maximum variation or heterogeneity sampling (Suri, 2011). Using this variant of purposive sampling enabled me to select proficient and well-informed individuals about collaborations between Zambian TEVET institutions and the industry. To ensure the transferability of research findings, data were collected from three different provinces with varied human development indexes. The sample size was guided by the research design employed.

1.12.2 Data collection strategies

Semi-structured interviews and focus group discussions were employed to collect data. As advanced by Cohen, Manion and Morrison (2011) and Stalmeijer, McNaughton and Van Hook (2014), these strategies enabled me to achieve comprehensiveness of the phenomenon studied as it gave me enough room to probe participants on unclear responses and then gave rise to several helpful further questions. As a result, I collected very rich and in-depth data sets from individual interviews and group discussions.

1.12.3 Data analysis strategies

Data analysis in hermeneutic studies is mainly performed by applying the hermeneutic cycle (Kafle, 2011). Using reflexivity, a solid orientation to collaboration between training institutions and the industry was maintained throughout the data analysis. Data from interviews were analysed first and utilised as the primary data set. Data from focus group discussions were analysed last, as the data were mainly utilised for triangulation.

1.12.4 Quality assurance strategies

According to Schwandt, Lincoln and Guba (2007) and Denzin (2017), common problems faced by investigators committed to interpretive practices are decisions regarding the credibility and trustworthiness of the analysis. To ensure that the analysis presented reflects not my experience but those of my participants, the four protocols of trustworthiness and authenticity as advanced by Guba in Chowdhury (2015), namely credibility, transferability, dependability and confirmability, were applied.

1.13 DELIMITATIONS OF THE STUDY

According to Creswell and Poth (2018), delimitations aim to narrow the scope of a study. Zambia currently has 305 registered TEVET institutions (TEVETA, 2021). Out of these, only 23 are public institutions. However, collecting data from all these institutions with limited resources such as time and finances was practically impossible. Data collection was limited to 3 public TEVET institutions offering more than two construction skills. Since phenomenological studies require fewer than ten participants, the study was restricted to a sample size of ten.

1.14 STRUCTURE OF THE THESIS

This thesis consists of seven main chapters.

Chapter 1: Introduction

Chapter 1 presents the background of the study and the key concepts fundamental to the study. The chapter then provides the rationale, objectives and planned research procedure. The chapter further presents the value of the study on collaboration between TEVET institutions and industry. The chapter concludes by discussing the delimitations of the study.

Chapter 2: Literature review

Chapter 2 justifies the need to research collaboration between Zambian TEVET institutions and industry. The chapter analyses literature on TEVET graduate

employability, Zambian TEVET policies and work-integrated learning. The chapter ends with literature on the importance of collaboration in providing TEVET.

Chapter 3: Theoretical and conceptual framework

Chapter 3 presents the theoretical and conceptual frameworks of this study. The chapter discusses the social exchange theory (SET): its origins, claims and criticisms relevant to this study. The chapter proceeds to justify using SET to analyse this study's findings. The chapter further discusses the conceptual framework. The framework highlights the role of collaboration in enhancing skills development by explaining the link between administrative policies and collaborative activities.

Chapter 4: Methodology

Chapter 4 presents the methodology and research design. The chapter presents phenomenology first as a philosophy underpinning this study and secondly as this study's research design. The chapter further justifies the use of hermeneutic phenomenology over transcendental phenomenology. Also discussed in this chapter are the sampling, data collection and analysis strategies, and the measures taken to ensure trustworthiness and authenticity. The chapter concludes by discussing the ethical considerations of the study.

Chapter 5: Presentation and discussion of the data and research findings

Chapter 5 presents the findings of the study. The chapter begins by outlining the profiles of the participants. The chapter then presents the emerging themes from the data. The chapter then presents data regarding collaborative activities between Zambian TEVET institutions and industry. Also presented are data on the influence of existing activities and Zambian policies on skills development. The chapter ends by presenting data on the importance of collaboration between TEVET institutions and industry.

Chapter 6: Discussion of findings

Chapter 6 discusses the findings presented in Chapter 5. The chapter critically analyses the existing collaborative activities and policies between TEVET institutions

and industry. The chapter further suggests how policies on collaboration can be amended to enhance the quality of skills developed in Zambia.

Chapter 7: Conclusions and recommendations

Chapter 7 presents the conclusions of the study and recommendations for further research. This chapter provides an overview of the study's findings about the research objectives. The chapter also presents the theoretical and practical implications of the study. The chapter concludes by stating the study's limitations and the final remarks on the findings.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter presents the literature reviewed to justify the need to study collaboration between TEVET institutions and the industry. Various scholars and researchers have defined the term literature review differently despite communicating the same meaning. For instance, Hart (2018) defines a literature review as a critical analysis, evaluation and synthesis of existing knowledge relevant to the research problem. This definition implies that the existing knowledge related to the research must reveal challenges or issues that need to be solved through research. Similarly, Fink in Booth et al. (2021) defines a literature review as a systematic, explicit, and reproducible method for identifying, evaluating, and synthesising the existing body of completed and recorded work produced by researchers, scholars and practitioners. Broadly defined, a literature review is a systematic way of collecting and synthesising previous research (Snyder, 2019). From these definitions, it is clear that empirical literature tries to accomplish the following steps adapted from Levy and Ellis (2006):

- a. It helps the researcher understand the existing knowledge by stipulating what is already known and what needs to be known.
- b. It provides a solid theoretical foundation for the proposed study based on what is already known.
- c. It substantiates the presence of the research problem concerning what is needed to be known.
- d. It justifies the proposed study as one that contributes something new to the body of knowledge.
- e. It frames the proposed study's valid research methodologies, approach, goals, and research questions.

Therefore, this chapter will present various studies and other technical and vocational education literature that justify research on collaboration between Zambian technical education, vocational and entrepreneurship training (ZTEVET) institutions and industry. The literature reviewed spotted strengths, weaknesses, and missing links in

the collaboration between technical and vocational institutions and industry. Specifically, the review focused on graduate employability, contextualisation of continuing professional development programmes (CPDs), the role of collaboration in skills development, and Zambian policies on TEVET. Taking a critical stance in presenting the literature, this literature review is presented in a problem-cause-solution order. In this case, the problem is a mismatch between the skills provided by technical education, vocational and entrepreneurship training (TEVET)/technical education and vocational training (TVET) institutions and the skills required by industry, which has been caused by gaps in vocational pedagogy, policy development, and implementation and might be solved through effective collaboration.

2.2 TEVET/TVET AND GRADUATE EMPLOYABILITY

A review of a tracer study by Khirotdin et al. (2019) on intensifying the employability rate of technical vocational education and training (TVET) graduates was conducted in Malaysia. The review revealed that enhancing the quality and delivery of TVET programmes to improve graduates' employability through enabling industries to lead curriculum development, eliminated the duplication of programmes and resources, enhanced cost efficiency and expanded funding for TVET to increase enrolment (Khirotdin et al., 2019). The youth unemployment crisis and evident skills mismatch between the needs of the labour market and general education have led to a recognition of the value of technical and vocational education and training (TVET) (Axmann et al., 2015). Unemployment ranks highly among the most severe problems or challenges countries across Africa face (Das & Sabina, 2020). Being fully aware that there are various factors to which graduate employability in Africa can be attributed, this section concentrates on graduate employability related to TEVET/TEVT. "There are three categories of employability skills stated in literature across the globe, namely core skills, generic skills and personal attributes" (Ismail & Mohammed, 2015: 75). However, the focus of this study is on core skills. Core skills refer to specific technical and vocational competencies that enable graduates to perform specialised tasks after being efficiently trained. To fully understand the interplay between TEVET/TEVT and graduate employability, TEVET/TVET and graduate employability must be conceptualised.

2.2.1 What is TEVET/TVET?

TEVET/TVET is defined by Rowman and Littlefield as:

The preparation of members of society for production to fuel the economy or a skill-based professional training geared to meet the needs of the economy or a mechanism to equip the economic enterprise with the tools to improve productivity and competitiveness. (Cited in Gamal, 2021: 142).

According to Oviawe, Uwameiye and Uddin (2017: 7) TEVET also refers to a “deliberate intervention to bring about learning, making people more relevant and productive in designated areas of economic and technological activities”. In this study, TEVET, widely known as technical education, vocational and entrepreneurship training, will be used interchangeably with skills development. The term will be interchangeably used because international education financiers or donors have used the term ‘skills development’ in place of TEVET, arguing that “there is still a strong sense that the capacities acquired through skills training or skills development are linked to livelihoods, occupations and work – whether in industry, commerce, agriculture or micro-enterprise” (King & Palmer, 2006: 11). From all these definitions, the core aim of TEVET is to serve the production needs of the industry.

2.2.2 What is graduate employability?

Besides technical knowledge to compete for employment and sustain a job in the global industrial market, employability skills are the most required in the 21st century (Ismail & Mohammed, 2015). Several developments have ensured that training institutions ensure good graduate employability. According to Finch et al. (2013), employability is a multi-dimensional construct that involves the ability to secure first employment, transfer between positions at the same employer, and secure employment from a new organisation. Graduate employability focuses on the individual’s skills, knowledge and other attributes acquired through training institutions that enable individuals to secure and maintain employment (Bridgstock & Jackson, 2019). Additionally, graduate employability implies that students and graduates can discern, acquire, adapt and continually enhance the skills, understandings and personal attributes that make them more likely to find and create meaningful paid and

unpaid work that benefits themselves, the workforce, the community and the economy (Oliver, 2015).

This diverse skill set underscores the importance of making skills training holistic if training institutions are to respond to the needs of the societies they intend to serve (Yusop et al., 2022). High-quality vocational education and training (VET) prepares young people for the labour market and addresses the skill requirements of the workplace (ILO, 2020). This means that it is vital that training institutions play the leading role in getting firsthand information regarding the skill requirements through tracer studies. Additionally, education systems must redesign qualifications to meet the needs of individuals and workplaces (Venkatraman, De Souza-Daw & Kaspi, 2018).

2.2.3 TEVET and graduate employability in sub-Saharan countries

Governments in developing countries are becoming increasingly aware of the potential of technical education and vocational and entrepreneurship training (TEVET) to reduce poverty and unemployment, hence contributing to national economic growth (Albashiry, Voogt & Pieters, 2015: 601).

Additionally, every year, about 10 to 12 million poorly skilled young people in Africa who are exiting the various levels of the education system enter the labour market, where they end up in insecure and sometimes hazardous employment with no prospect of further education or training (Afeti, 2018). The increase of low-income, low-skilled youths in the labour market, particularly in developing countries, is a significant concern internationally (Tripney et al., 2013). Even graduates of higher education institutions are not spared the frustration of seeking and not immediately finding a job. In Zambia and Ethiopia, young graduates may take up to five years after training before finding a job in the formal sector (Afeti, 2018).

Not only are millions of young people being excluded from formal education systems and labour markets globally, but they are increasingly being excluded from even the conceptualisations of 'normal' trajectories (Billett et al., 2018: 305).

Besides being small, the TEVET sector in most sub-Saharan countries is characterised by a significant lack of practical relevance and responsiveness to labour market needs, insufficient infrastructure and equipment and extremely low throughputs (Eicker et al., 2017). TEVET provision is an important, ever-growing priority of national education systems and any skills development agenda (Axmann et al., 2015). Various researchers such as Papier et al. (2017) and Ismail et al. (2018) have also taken a keen interest in conducting studies that might add to the knowledge on TEVET provision and solve various problems in the sector. Although the literature on graduate employability is informative and illuminating, the role of university practices in fostering graduate employability in sub-Saharan Africa, particularly Tanzania, has been less studied (Mgaiwa, 2021). Therefore, this study on collaboration between Zambian TEVET institutions and industry intended to generate literature that may be useful in forming policies based on contextualised research.

The primary rationale underlying technical education, vocational and entrepreneurship training is to produce work-ready graduates by developing relevant knowledge and skills and encouraging training in essential real-world skill sets such as critical thinking, problem-solving, communication, and lifelong learning (Okolie et al., 2020). The World Bank reviewed transitions to working life for Africa's youth in eight countries, namely Cameroon, Ethiopia, The Gambia, Kenya, Malawi, Mozambique, São Tomé and Príncipe, and Zambia. The review revealed that "Africans who transition from school to work experience very long periods of inactivity, implying significant labour market entry problems" (Kintu, Kitaigane & Ferej, 2019: 2). In order to meet the demand of the 21st century workplace for skilled human resources and to produce individuals that will be equipped with saleable skills for employment and self-reliance, TEVET institutions must collaborate with the industry towards bridging the skills gap (Oviawe et al., 2017). Collaboration between training institutions and industry should thus be seen as a crucial factor when analysing graduate employment.

The issue of collaboration between training institutions and industry is also gaining attention in Ghana. A study was conducted by Pongo and Obinnim (2015) to explore the changing landscape of industry practice and the role TEVET can play in its development. The study employed a qualitative approach through a cluster sampling technique to collect data from selected manufacturing industries in Ghana. The study

found that some industries avoid equipping their businesses with sophisticated technologies because they lack skilled human resources. This challenge implies that graduates being produced by TEVET institutions are not prepared to take up the 21st century jobs. The study recommended re-examining such industry-related issues based on standards and quality indicators and discovering ways to strengthen collaborative linkages between TEVET institutions and the industry.

Lastly, Mabunda and Frick (2020) explored the factors influencing national certificate graduates' employability at a rural TEVET college in the Eastern Cape province of South Africa. The study used semi-structured interviews. Data were collected from recent graduates on their perceptions of their employability. The study revealed that negative stakeholder perceptions exist about the employability of national certificate graduates in the study context, which was a significant factor in determining these graduates' employment prospects. The study found no attempts to strengthen institution and industry relationships and that prospective employers had limited awareness of the curriculum and its objectives.

2.2.4 Other studies on TEVET and graduate employability

Similar studies on training institutions and industry have been conducted outside Africa. The first example is a qualitative study conducted by Neroorkar and Gopinath (2020) to ascertain how industrial training institutes (ITIs) affect the employability of graduates in Mumbai, India. Data were collected from 15 students, 21 staff members (teaching and non-teaching) and 13 employers associated with the ITIs in Mumbai's city and suburban areas. The findings showed a distinct set of six factors by which ITIs affect the employability of graduates. These were: imparting knowledge and skills; affecting students' attitudes and expectations; providing apprenticeship; signalling favourable characteristics; acting as an intermediary between the industry and the graduates and helping build social networks. These findings suggest that collaboration between training institutes and industry is essential when determining graduate employability. This phenomenon must be investigated further, especially in the Zambian context, where other studies have found similar findings. For instance, a study by Mwila (2016) examined the effectiveness of TEVET in providing education and skills development in the Solwezi district in the North-Western province of Zambia. The study recommended increased partnerships between training institutions and the

industrial sector to enhance the responsiveness of the training to the labour market demands.

A second study reviewed was a study conducted by Raihan (2014) on collaboration between TEVET institutions and industries to enhance employability skills in Bangladesh. The research objectives of the study were to identify the online means of industry and institution collaborations, suggest how to link TEVET institutions with industries, propose collaboration initiatives, and identify the common problems faced during collaboration. The study underscored the importance of collaboration in reducing the widening gap between knowledge generated through the training systems and the skills demanded by employers. The study recommended that the government of Bangladesh should formulate policies on technical education, vocational and entrepreneurship training and industry linkages, describing in detail the collaboration types, collaboration-building methods and specific roles of providers and enterprises. Despite Raihan's study being similar to my study, analysing collaboration between TEVET institutions in Zambia and industry is crucial because it may provide contextualised literature and solutions regarding collaboration and skills development in Zambia. Furthermore, Raihan's study was desk research. In contrast, this study is field research which generated richer personal experiences on collaboration rather than relying mainly on other researchers' work which might have biases in interpretation.

Aziz and Khan (2018) conducted a SWOT analysis of the institutional framework for engineering diplomas in Pakistan's technical and vocational education and training system. The weaknesses captured were TEVET deficiency, administrative and legal issues, highly skewed technical education, inadequate technical colleges, traditional engineering technologies, trade quality compromises, and non-collaboration among TEVET institutions and authorities. These weaknesses are similar to those presented in the Zambian national policy documents on TEVET. Similarly, the threads presented by the analysis, which include low skill formation, technical skill deficiency for females and rural areas and lack of international competitiveness in labour markets, are also reflected in the latest Zambian policy document of TEVET (Ministry of Higher Education, 2020). However, this study explores how collaboration among TEVET stakeholders can make TEVET graduates employable locally and internationally.

Owing to the noticeable shortage of skilled labour across various industry sectors, which is hampering the growth of Indian industries, Malik and Venkatraman (2017), reviewed relevant literature to understand the reasons behind the increasing skills gap despite a vibrant and abundant young population. The review revealed that the primary reason for a broad skills gap is the absence of industry-academia collaboration and suggested that practical exposure needs to be given by industry experts to young graduates to prepare them for India's high-paced growth and investment climate. The review emphasised the role of various stakeholders in bridging the skills gap by investing in today's workforce for a better tomorrow. Emanating from such findings, my study sought to explore the role of collaboration between TEVET stakeholders in enhancing the quality of skills development geared at reducing unemployment issues among TEVET graduates.

It must also be noted that the manufacturing and industrial revolution in the now-advanced countries required the development of a skilled workforce that produced the necessary innovation for attaining and maintaining high living standards (Alagaraja, Kotamraju & Kim, 2014). Since TEVET is meant to raise the living standards among people experiencing poverty and serve the labour needs of the economy, Zambia must ensure that it learns from the success stories of other countries regarding TEVET. According to Lensjø (2021), TEVET enjoys a high level of trust in Norwegian society such that more than a quarter of all Norwegian employees have a vocation education and training background. Additionally, "the education program for building and construction is one of the core fields in Norwegian technical vocational education and training" (Lensjø, 2021: 3).

Zambia can also learn from Finland, which is an example of global excellence for TEVET and was ranked fifth in the world's most innovative economies according to Bloomberg's 2017 index (Musyimi, Malechwanzi & Luo, 2018). However, this learning does not entail imitating these countries' policies and systems but researching what would work in Zambia's economic, social, and political context. Industries can develop an institution-workplace collaboration relationship with TEVET institutions to enhance a sustainable workforce to meet the industry's needs (Bridgstock & Jackson, 2019; Oviawe et al., 2017). Hence the need for the study on collaboration between Zambian

TEVET institutions and industry to develop workable guidelines for successful collaborations.

2.3 CONTEXTUALISATION OF TEVET CONTINUING PROFESSIONAL DEVELOPMENT PROGRAMMES (CPDs)

For lecturers and various educational professionals, lifelong learning or continuing professional development (CPD) is necessary for improving knowledge and career advancement (Radović et al., 2021). Through continuing professional development lecturers are keeping abreast with the current labour demands and are equipped with the relevant knowledge and skills to transfer to their students. It is also important to note that the capacity of TEVET systems to provide high-quality and relevant training depends mainly on the quality of its lecturers and, by extension, on the quality of their teacher training systems (Axmann et al., 2015). As such, training institutions must pay considerable attention to the quality of teacher training systems.

Additionally, among other determinants, the quality of training systems is judged by the systems' ability to produce employable graduates who possess the skills required by the labour industry. Van der Bijl and Oosthuizen stated:

To develop a competent and employable workforce, TEVET college lecturers need a combination of qualifications and experience that provide them with workplace-related competency, teaching or pedagogic competency and qualifications for which they prepare their students, and which are regarded as necessary for learning to be properly facilitated.

(Van der Bijl & Oosthuizen (2019: 205)

Therefore, lecturers must continuously be exposed to the ever-changing teaching equipment and pedagogies. This continued exposure will ensure that the graduates produced are up to date with the skills required by the labour industry. This section discusses selected local and international studies on the contextualisation of continuing professional development programmes for TEVET/TEVT lecturers to justify the need for the study on collaboration.

2.3.1 What are continuing professional development programmes (CPDs)

CPDs have been defined differently by different scholars. Continuing professional development (CPD) refers “to all learning intended to improve professional expertise through the acquisition of knowledge and learning new skills beyond those acquired during initial training” (Njenga, 2018: 2). In this case, CPD for TEVET lecturers entails the acquisition of knowledge and skills which will enable them to sustain improved academic, personal and social learning outcomes in students. As such, CPDs enable teaching staff to update their pedagogical knowledge and equip them to teach a new curriculum, module or competence, thereby improving student outcomes (Rawkins, 2021). In my study, CPDs represent various academic and professional programmes designed to upgrade the qualifications of TEVET/TVET lecturers. These programmes could be organised by training institutions or industries utilising TEVET institutions’ labour.

2.3.2 The importance of continued professional development (CPD) in enhancing the quality of skills development programmes

The importance of CPD cannot be over-emphasised. Quality skills development hinges on many factors and the quality of lecturers is of critical importance. According to Njenga (2018), the quality of TEVET is strongly dependent on lecturers’ competencies. Unfortunately, several African countries struggle to produce and retain highly skilled and competent TEVET lecturers. For instance, a study by Zinn, Raisch and Reimann (2019: 180) revealed that “one in every five lecturers at a South African vocational college possessed no academic and vocational qualification to teach (i.e., at least three years of full-time university tuition with a National Qualifications Framework (NQF) grade of at least six or higher)”. Owing to such findings, CPDs are very important and must be given the serious attention that they deserve if African countries are to produce highly skilled and competent graduates.

In addition, research on teacher education has shown that teacher competence is a prerequisite to effective teaching and learning because of its relationship to student learning outcomes, be it academic or otherwise (Ismail et al., 2017). Therefore, to reduce the gap between the quality of skills developed by TEVET institutions and desired skills by the labour industry, the curriculum requires continuous renewal and

constant involvement of stakeholders in the redesign process (Albashiry et al., 2015). This skills gap underscores the need for CPDs to be developed and managed by training institutions and the industry. As a result, the need for further studies on the collaboration between TEVET institutions and the labour industry to develop strategies that would make CPDs more effective and efficient is justified.

Also, lecturers' competencies depend on how well lecturers are willing to continue to learn and update their knowledge and skills and the available opportunities for such programmes. It was earlier noted that TEVET in Zambia has been held in very low esteem for a long time due to the teaching staff's poor academic and professional qualifications. CPDs are thus crucial in this context as they can help combat the almost universal imbalance in esteem between the TEVET sector and general education by increasing the quality of provision and improving teacher satisfaction (Rawkins, 2021).

TEVET in Zambia has a quality assurance system that classifies training institutions according to their capacity to provide quality education and training. The 2018 record of institutions registered with the technical education, vocational and entrepreneurship training authority (TEVETA) indicated that:

... 53.0% of the registered TEVET institutions were in the grade three category, which is the lowest level in the quality grading system, 37.0% of the institutions were in grade two, while only 10.0% were in grade one, which is the highest level. (Ministry of Higher Education, 2020: 3)

Factors used to grade the quality of institutions include poor infrastructure, inadequate and inappropriate tools and equipment, limited teaching and learning materials, insufficient qualified and experienced lecturers, and poor conditions of service for staff in the TEVET sector. The significant number of institutions graded as Grade 3 reveals that much of the TEVET provided in Zambia is of low quality. To improve the quality of TEVET provision, various researchers have suggested that there must be meaningful interactions between training institutions and other relevant stakeholders.

According to Malik and Venkatraman (2017: 175), "studies reveal that there is a dearth of students with good technical and soft skills required for the ever-changing environment". At the same time, the roles and responsibilities of lecturers in TEVET

have become multi-functional and combine many professional elements with those of active stakeholders in TEVET design and reform. Furthermore, TEVET graduates' competency is greatly influenced by the quality of TEVET lecturers and teacher educators (Arinaitwe, 2021). Therefore, lecturers in TEVET institutions must continue upgrading professionally to suit the ever-changing environment. CPDs are also crucial in developing market-driven skills, as lecturers cannot pass on knowledge and expertise they do not possess. Contextualisation of TEVET CPDs in Zambia through collaboration is thus an important topic that researchers must explore.

A study by Lloyd and Payne (2012) explored the effectiveness of models for regulating and organising CPDs for vocational lecturers across countries. The study compared the approaches adopted in three countries – England, Wales and Norway. Lloyd and Payne's study explored the opportunities for CPD and constraints on the ability of lecturers of hairdressing to reflect and improve on their practice using interviews to collect data. The findings suggested that while hairdressing lecturers in England and Wales had more opportunities to keep up with their 'craft', those in Norway found it easier to access pedagogic education and inhabit an institutional environment that affords more time and space to share ideas and collectively improve their practice. The variation suggested that there is a need for CPD to be contextualised. Contextualisation of CPDs directly influences the quality of learner experiences as it exposes learners to what they will be exposed to in the industry. In Zambia's case, lecturers wanting to upgrade to higher degrees are sent abroad because Zambia's public universities have limited vocational and technical courses, thereby creating a gap in contextualisation.

Lastly, Zambia offers most technical and vocational skills training at certificate and diploma levels. This level then means that students and lecturers who want to further their studies to a first, second or third degree in Zambia are hindered and therefore opt for other fields of study that give them this opportunity. The failure of lecturers to upgrade their skills from local universities thus impacts the quality of teaching in terms of contextualisation. Nonetheless, despite the poor quality of teaching coupled with the evident negative social perception regarding vocational education and training (VET) programmes, several steps have been taken to address these concerns, though only lately (Agrawal & Agrawal, 2017).

2.3.3 Challenges surrounding CPDs in the TEVET sector

Conceptually, TEVET teacher and instructor training is viewed in many countries as something ‘people will do on the job’. There seems to be a lack of a clear career pathway or clear stages of professional development. Pre- and in-service programmes for lecturers and instructors are often not in place, creating difficulties for personnel working in a sector such as TEVET, which is highly dependent on innovations and technology-driven, to function effectively without their training support framework. Innovations also require very close contacts with enterprises and other stakeholders, including employment services, labour market institutions and other social partners, with other vocational lecturers and, of course, with TEVET students, for purposes of effective teaching/training, career guidance and more. (Axmann et al., 2015: 7)

Keeping lecturers professionally up-to-date and continuously providing them with professional development opportunities is a big challenge (Misra, 2018). The challenge stems from the ever-changing industry labour needs resulting from the fast-evolving technological, socio-economic, and demographic contexts. Other challenges stem from the fact that in many countries, the backgrounds and formal qualifications of TEVET lecturers are quite heterogeneous (Chakroun, 2019). For instance, one of the challenges noted in the Zambian TEVET policy document is insufficient academically and professionally qualified lecturers in TEVET institutions (Ministry of Higher Education, 2020). This lack of qualified personnel has resulted in institutions engaging industry specialists with or without pedagogical training in the teaching and training of TEVET students.

A study comparing experiences in the education and training of TEVET lecturers in South Africa, Egypt, Ghana, Tanzania, and Cameroon revealed that no progression routes stimulate the professional development of lecturers, including industry experience and obtaining new skills (Grijpstra & Papier, 2015). This revelation does not mean that progression routes in making the TEVET teaching profession attractive and providing opportunities for ongoing development, for instance, in curriculum design or management, are unnecessary.

Additionally, this comparative study revealed three groups of transversal challenges whose impact was beyond national contexts. These challenges were classified as those arising from the positioning of TEVET teacher education in the educational sector, those that concern the quality of TEVET teacher education, and those regarding the relevance of teacher education curricula for TEVET lecturers. My study intended to explore how collaboration between industry and TEVET institutions can help clarify and implement Zambia's progression routes to facilitate contextualised TEVET CPDs.

Another challenge CPDs face is their poor evaluation by school leaders, practitioners and policy-makers, which is impressionistic, anecdotal and focused on simple measures (Earley & Porritt, 2014). Evaluation of CPDs requires a focus on student learning and an evidential baseline to enable practitioners and school leaders to determine the influence of the programmes. For instance, competitive pressures in countries such as the United States, China and Russia induced regional actors to devise new institutional arrangements to foster economic development by improving the match between TEVET and local labour markets (Remington, 2018). Thus, it is hoped that my study will bring out the core issues surrounding the successful evaluation of CPDs through institution-industry engagements.

In a study conducted in India, the researchers noted that the education system provides a "one size fits all" model, thereby making the curriculum in educational institutions fail to reach its mark (Malik & Venkatraman, 2017). Malik and Venkatraman (2017) also noted a lack of quality lecturers and updated laboratories for practical training. These challenges are not different from those outlined in the Zambian TEVET policy documents regarding the status of the TEVET curriculum, lecturers, and equipment. Regarding TEVET CPDs, a critical review of literature by Wariyo (2018) on teaching and learning in Ethiopia revealed the following challenges:

- a. Absence of a structure for CPDs in most schools.
- b. Cluster resources centres were not adequately trained to run well-organised, inspiring, and transforming continuing personal development activities.
- c. Failure to synchronise the career structure and the continuing personal development values and activities.

- d. Time constraints on lecturers as well as their school leaders.
- e. Total absence or inadequacy of the minimum resources to run CPDs and
- f. Lack of systematic coordination between relevant stakeholders.

Even though most of the literature reviewed on challenges is foreign, it serves as a guide for comparing the actual results of my study with what other researchers found in other countries. The gaps are essential in identifying workable suggestions for contextualising TEVET CPDs.

2.3.4 Vocational pedagogy and technology

There has been a spate of analytical reports that have put the spotlight on skills and jobs of the future, like those from the Asian Development Bank (ADB), International Labour Organisation (ILO), World Economic Forum (WEF) and the World Bank (WB), all reflecting the mighty waves of change occurring in labour markets globally (Jagannathan, Ra & Maclean, 2019). The waves forecasting changes to labour markets are driven by disruptive technologies' pervasive impact on economies and societies. Information and communication technologies (ICTs) in vocational pedagogy cannot be ignored in meeting the current labour demands (Hassan et al., 2021). Vocational pedagogy refers to the many decisions vocational lecturers make as they teach, adjusting their approaches to meet the needs of learners and match the context in which they find themselves. It is the science, art and craft of teaching and learning vocational education (Lucas, 2014).

A study was conducted to ascertain the perception of TEVET lecturers on the constraints and possible strategies for effectively using social networking sites (SNS) for collaborative learning in tertiary institutions in Nigeria (Olelewe et al., 2020). The study revealed that possessing high-level skills is necessary to enable TEVET lecturers to utilise ICT facilities to play crucial roles in inventing and implementing practical solutions in the present realities. Changes in teaching and learning modalities, pedagogical approaches, assessment and certification are taking place. Developments, such as massive open online courses or microlearning opportunities, are disrupting established, traditional models in the sector and providing more flexible learning pathways (ILO, 2021). However, other studies have shown that most lecturers lack the requisite knowledge and skills for ICT integration in their classrooms.

Hassan et al. (2021) conducted a systematic literature review to evaluate the innovation of ICT in TEVET education for ten years (from January 2010 to December 2020). Rigorous inclusion/exclusion criteria were applied, and 134 documents were selected and evaluated. The study revealed that ICT enablement in TEVET education is very low. For the TEVET sector to respond to the ever-changing labour demands in this digital era, industry, academia, researchers, TEVET policy makers, TEVET training providers, and donors/funding agencies must focus on integrating technologies demanded by the industry into TEVET.

A qualitative study was conducted to establish technologies, technological skills and curriculum needs for South African public TEVET college students for their relevance and preparation for the working world in the fourth industrial revolution (Denhere & Moloi, 2021). Data were collected from 26 purposively sampled TEVET colleges from nine provinces. Students raised 25 different technologies they required to participate meaningfully. The study further revealed that ninety-three per cent of students were unsatisfied that the current curriculum provided them with relevant knowledge to propel them in future employment prospects (Denhere & Moloi, 2021). Additionally, Jagannathan et al. (2019) argue that the fourth industrial revolution has profound implications for how we best prepare people for the changing world of work, particularly in higher technical skills and TEVET. Therefore, from these findings, it is undoubtedly clear that TEVET systems must incorporate relevant technologies to produce graduates who are competent enough to satisfy the ever-changing labour needs. Undoubtedly, sub-Saharan Africa is adjusting to the changing demand for skills driven by technological development (Dutz, Choi & Usman, 2020).

Finally, Kasman et al (2018) opined that skilled human resources should be developed in line with the requirements of the industries. At the same time, effective continuous personal development (CPD) that instigates positive change in teaching practices must be ongoing, job-embedded, and relevant to individual lecturers' needs (Martin & Thomson, 2018). In my study, technologies are viewed as critical in enhancing the teaching and learning of established TEVET content. They must, therefore, not replace or alter the core aim of TEVET.

2.3.5 The way forward

In some countries, continuing personal development is a lecturers' right, sometimes covered by collective agreements (Italy, Malta, the Netherlands, Romania, Sweden); in others, it is an obligation (Bulgaria, Cyprus, Latvia, Hungary, Portugal, UK) or part of the school development and quality assurance processes (Bulgaria, Italy, Poland, Portugal). In Spain and Slovakia, attending continuing personal development programmes translates into wage bonuses for lecturers. (Chakroun, 2019: 371)

Despite the difference in the social, economic, political, and educational contexts of the countries named above, Zambia and several other African countries must regard CPDs as a critical component in reducing the prevailing skills mismatch gap (Papier et al., 2017). African countries must spell out the content, time, and location of CPDs. To enable students and lecturers to acquire 21st century skills, substantial financial and material investments are required in CPDs. There must be greater emphasis on the practical training of students, revision of educational programmes and retraining of instructors (Remington, 2018). However, the collaboration between training institutions and industry must be enhanced for all the programmes to be achieved. Stakeholders must also be convinced that digital technologies create new opportunities and challenges for TEVET and skills development systems in how they operate and deliver products and services (ILO, 2020).

To maintain quality in vocational education, vocational lecturers need opportunities to develop professionally during their professional working lives as lecturers. Continuing professional development is essential in ensuring that VET lecturers do not lose contact with the latest developments in the fast-evolving areas of knowledge, skills, and competencies required by the labour market (Serafini, 2018). A study by Zinn et al. (2019) revealed that apart from South Africa, other African countries such as Egypt, Ghana, Tanzania and Ethiopia acknowledged the importance of highly qualified lecturers and trainees at vocational colleges and, in this spirit, have expressed their intention to institute appropriate reforms. Therefore, Zambia must not import reforms

but develop them from scratch, bearing in mind the geographical and economic context of Zambian TEVET institutions.

Therefore, it is essential to investigate how CPDs in TEVET can be contextualised. In most countries, formal solid links have been established between teacher education, TEVET school needs, and the profession, but hardly any evidence has been found on collaboration between TEVET teacher education and the industries (Grijpstra & Papier, 2015). Conclusively, it should be noted that “linkages between TEVET teacher education and employers could strongly contribute to overcoming the gap between skills supply and demand” (Grijpstra & Papier, 2015: 55).

2.4 TEVET/TVET STUDIES BY INTERNATIONAL ORGANISATIONS ON THE QUALITY OF WORK-INTEGRATED LEARNING (WIL) EXPERIENCES

This section presents various studies on TEVET conducted by international organisations on the quality of work-integrated learning (WIL) experiences stretching from 2010 to 2021. WIL has no precise definition, although Berndtsson, Dahlborg and Pennbrandt (2020: 2) summarised it as “an umbrella term for pedagogical methods and strategies to integrate theoretical knowledge in the workplace based on a specially designed curriculum”. WIL refers “to a range of activities which connect industry with education and allow students to apply their theoretical knowledge in a practical setting” (Jackson et al., 2017: 36). WIL enables the embedding of relevant real-world learning into the TEVET curriculum resulting in students that are better prepared to enter the workforce and meet the demands of employers seeking work-ready graduates (Ferns, Russell & Kay, 2016). As a result of the critical role of industry in WIL, the need to strengthen collaborations between TEVET training institutions and industry has constantly been mentioned in the studies reviewed. However, very few studies have outlined how these collaborations must be conducted.

G20 countries had by 2010 identified skills development as a strategic objective upon which any country’s future prosperity ultimately depends (ILO, 2010). The International Labour Organization (2010) further noted that effective partnerships between governments, industry, and training institutions were critical to anchor the world of learning in the world of work. Owing to this realisation of the importance of quality skills development, Axmann et.al (2015) presented a workforce development model as a

four-phase cycle comprising demand-driven skills in selected sectors, education and training, public-private partnerships, and an improved workforce. The model emphasised the significance of involving employers if TEVET institutions must produce demand-driven skills required for economic development. For instance, including WIL in all skills development programmes could only be achieved by involving TEVET employers in the skills development process. However, for the workforce development model to be effective, clearly stipulated policies must guide the partnerships between training institutions.

Secondly, the Health and Education Advice and Resource Team (HEART) conducted research in 2013 to understand the role of private sector skills development, both as employers and as skills providers. The research aimed at finding potential opportunities to support private sector integration in all aspects of skills development in low-income countries (Dunbar, 2013). The research identified global partnerships, skills development programmes moving down companies' supply chains, sectorial alliances, earn-and-learn programmes, and soft skills development as areas in which private sector involvement has been successful or has a strong potential for success. In addition, UNESCO-UNEVOC (2012) projected TEVET strategies as having a broader social distribution of ownership in the future, focusing on states building partnerships with particularly employers in the private sector, in all its diversity, to provide WIL experiences to students. These studies, among others, suggest that building and strengthening partnerships between TEVET stakeholders underscore the importance of collaboration in enhancing the quality of skills development and the need for further research on the same.

A scoping exercise by Moono and Rankin (2013) on education and employment in Zambia revealed that education providers were not proactive in engaging the industry on the relevance of their training. Education providers were also not proactive in collaborating with the industry to ensure that students were subjected to quality WIL experiences during their training. As a result, education providers are unaware of the relevance of specific skills that graduates are expected to possess to be marketable in the industry. Thus, the role of education in developing qualified human resources is compromised by a lack of continuous engagement with the industry. In addition to the lack of industry-specific qualifications or skills, there is no formal active labour market

information system. The exercise suggested encouraging firm apprenticeships to create an inventory of skills required in this industry and a mechanism for the industry and education providers to collaborate. The exercise suggested encouraging WIL experiences for students in TEVET institutions, collaborating with end-users, and developing a mutually beneficial working relationship between TEVET providers and the industry to improve the curriculum content and delivery. The study, however, did not suggest how this collaboration should be conducted.

Another study reviewed was by the Asian Development Bank (2014), which synthesised country reviews in five Asian countries, namely Bangladesh, Bhutan, Maldives, Nepal, and Sri Lanka. The synthesis indicated a considerable mismatch between skills provided by TEVET institutions and those required by the hiring industries. The synthesis further indicated that the skills mismatch resulted from lacking information about demand and employer involvement in various training phases, from policy development to delivery, and rigid supply responses by public training providers. These findings are similar to the ones found by Moono and Rankin (2013) in the earlier discussed study on Zambia. Many growing and middle-income countries are thus challenged to develop relevant skills for industrial upgrading and economic transformation.

A study sanctioned by the International Labour Organisation (ILO) and conducted by Axmann et al. (2015) noted that lecturers are beginning to learn new learning and training approaches via different channels, for instance, through:

- Synergies or mutually beneficial bridges created between schools and colleges at the local level with enterprises and the community.
- Training and employment partnerships and TEVET networks, including placements of lecturers with local industry and services, public and private; and
- Increased autonomy for schools, colleges, and lecturers and improved accountability toward stakeholders, students, and parents.

The above learning and teaching channels indicate that there are synergies between TEVET stakeholders. However, how these synergies are being managed and

evaluated is still unclear. This study thus intends to fill in this gap in the management and evaluation of synergies between training institutions and industry.

Additionally, a comparative study of TEVET in five (5) African countries focusing on TEVET teacher education was commissioned in 2013 as a European Union-South African Collaboration (Papier et al., 2017). The study revealed that TEVET lecturers must cope with several learning needs and student expectations in their classrooms for which they have not received preparation. This calls for an increased demand for innovation and systemic reform in technical and vocational training to enable TEVET institutions to collaborate with key recipients of their services, which are the students and the TEVET employment industry, hence the need for further research on how the industry can help to enhance the professional skills of TEVET lecturers.

UNESCO-UNEVOC commissioned a trend mapping study on the future of TEVET teaching and learning. The study was conducted in three main phases: a two-week virtual conference, an online survey opened to the international community, and a peer review with a panel of TEVET experts (Subrahmanyam, 2020). The study identified the following ten trends that characterise high-quality and future-focused TEVET systems which support TEVET teaching staff in delivering the skills required for the future of work and learning:

- As digitalization and automation are changing the world of work, demand for transversal and applied skills is most likely to grow in the next ten years.
- Collection and dissemination of data on emerging skills for planning are becoming critical for future-oriented TEVET programmes.
- Skills assessment results are being used to develop in-service training and not so much to reform pre-service training.
- Future-focused TEVET systems value industry experience and exposure as part of pre-service training.
- Linking in-service training to career progression increases TEVET staff's openness to adopting new teaching and learning methods.

- High-quality in-service training focuses on industry exposure, transversal and applied skills, and pedagogy as much as content.
- Responsive TEVET systems ensure that TEVET staff receive adequate gender-responsive and inclusive training.
- TEVET of the future relies on the private sector as an essential partner within the in-service and CPD curriculum.
- Effective stakeholder coordination is seen as a mechanism to improve the relevance and quality of training and professional development of TEVET staff.
- Mechanisms to engage TEVET teaching staff are vital for aligning TEVET systems to future skills needs.

The trends outlined above clearly communicate the crucial role of TEVET teaching staff in producing graduates whose skills will be aligned with future skill needs. Four of the ten trends identified emphasise the need to engage the industry and other stakeholders in enhancing the quality of TEVET teaching staff if training institutions must produce industry-required skills. Having identified what is expected for the future of TEVET, the most recurring theme of collaboration between stakeholders must be explored further. Hence the need for this study.

Lastly, Wihtol (2019) conducted a scoping study to help identify opportunities for enhancing and expanding cooperation among member countries in the education sector. The study revealed that the principal threat to strengthening cooperation among Central Asian Regional Economic Cooperation (CAREC) countries lies in their geographic dispersion and economic diversity. The study suggested a need to fill the information gap on needed skills through cooperation with the labour market or industry. Geographic and economic diversity impacts the nature of policies, so there is a need for Zambia to develop contextualised policies on collaboration between TEVET institutions and industry. Regarding economic context, Northern and sub-Saharan Africa need to ensure that growth is more inclusive, particularly in those economies driven by commodity exports. There is a need for greater diversification, particularly away from commodity exports, which would bolster external resilience and,

if accompanied by skills development, could also provide avenues to facilitate gains in decent work and poverty reduction (ILO, 2017). My study, therefore, intended to suggest how such collaborations must be conducted in the Zambian context by analysing the experiences of various stakeholders on collaboration.

2.5 ZAMBIAN TEVET POLICIES

Historically, agencies outside of academia have conducted much of the targeted TEVET research (Papier & McGrath, 2020). However, with the help of national policies, higher education institutions are now expressing interest in TEVET research and development. This section will present key TEVET policies developed from when Zambia gained its independence in 1964 to 2020 to appreciate the gaps requiring further research in the Zambian TEVET policies. Specific to this study, gaps in collaboration between TEVET institutions and industry will be analysed.

The TEVET system in Zambia is divided into three functional structures: policy formulation, regulation, and service provision (Eicker et al., 2017). TEVET policies are formulated and reviewed by the Ministry of Higher Education and are regulated by the Technical Education, Vocational, and Entrepreneurship Training Authority (TEVETA). TEVET services are provided by various kinds of training institutions belonging to the government, private sector, faith-based organisations, communities, and non-governmental organisations (NGOs). The Zambian TEVET system is designed to equip students with relevant entrepreneurial skills so that they can come up with their own small or medium scale businesses. However, most of the TEVET graduates are integrated into the Zambian labour market, which comprises the public and private sectors. The following figure shows the functional structures of the TEVET system in Zambia.

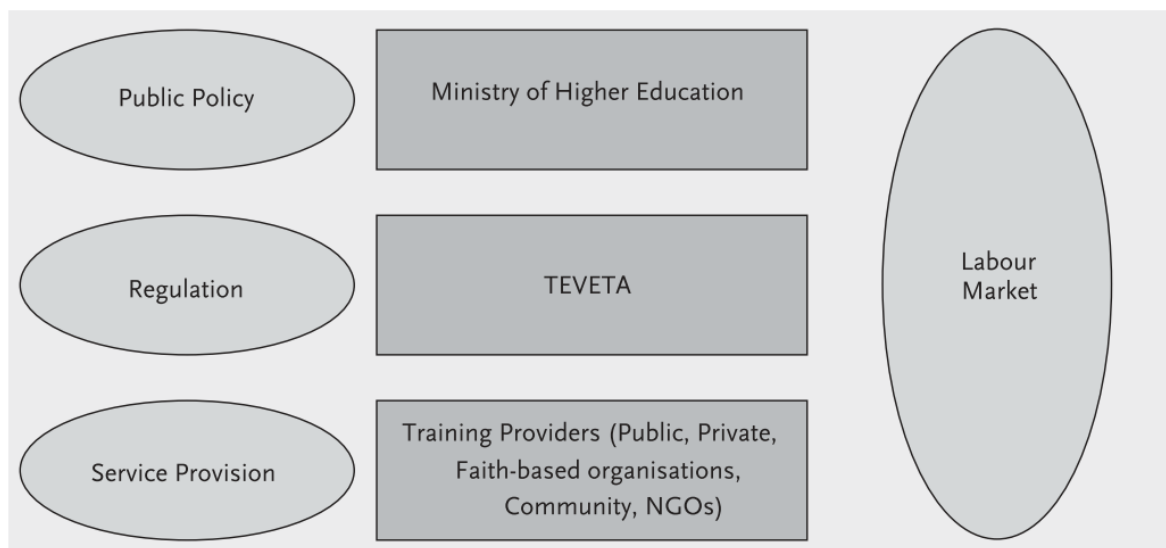


Figure 2.1: Functional structures of the TEVET system in Zambia (Eicker et al., 2017: 304)

2.5.1 The TEVET Policy of 1969 and the TEVET Act of 1970

Immediately after gaining independence, Zambia faced a dearth of skilled human resources to take up most positions that its colonial masters previously occupied. To resolve this challenge, Zambia embarked on a massive expansion of education by building schools and trades training institutions countrywide by expanding existing and new institutions (Mwanakatwe, 2013). In 1968 the Commission for Technical Education and Vocational Training (CTEVT) was established to resuscitate and revamp technical education to:

- Satisfy the existing requirement of public service, industry, and commerce.
- Ensure steady output for the future, and
- Ensure Zambia would be technically oriented, and that the youth would be trained in the initiative, creative, and productive hard work (Ministry of Science Technology and Vocational Training, 1996: 3).

The establishment of the CTEVT was followed by the Statement of Policy and Intent of 1969 to guide the TEVET provision (Mwanakatwe, 2013). Through this 1969 policy, together with the TEVET Act of 1970, the country developed a vibrant demand-driven skills development system (Mukuni, 2020). Mukuni further notes that vocational education was given legal backing by enacting the Technical Education and Vocational Training Act, Number 37 in 1972.

However, as early as 1977, challenges in running the TEVET sector began to multiply, indicating the need to restructure and revise the 1969 TEVET policy. For instance, in 1977, the government shifted away from apprenticeship-based training, citing that apprenticeship was a piece-meal training for only a few persons employed while undergoing training (Mwanakatwe, 2013). Another indicator or challenge was that very few students returned to complete their training after undergoing industrial attachments. The structure of TEVET during this period was that students spent one year of basic training at college, one year of industrial attachment, and one year of basic training at the institution again (Kelly, 1999). As a result, despite recording very high enrolments, very few students completed their training and graduated.

The high dropout rate was also attributed to the many industry opportunities for persons with a background in trades training and the high failure in theoretical exams (Mukuni, 2020). In addition, vocational training began to be held in low esteem owing to the high number of highly skilled lecturers who had left for greener pastures due to poor conditions of service. As a result, the government needed to revise the 1969 TEVET policy with a policy that would improve the quality of TEVET through improved linkages between training institutions and industry (Ministry of Science Technology and Vocational Training, 1996).

2.5.2 The TEVET Policy of 1996

Following the decline in the quality of skills development after the 1970s, the Government, through the Ministry of Science, Technical and Vocational Training (MSTVT), instituted the Technical Education, Vocational and Entrepreneurship Training (TEVET) Reforms in 1994. The government further formulated the TEVET Policy (1996), the Strategy Paper (1997), the TEVET Act No. 13 of 1998 and the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) (Government of the Republic of Zambia, 2006). The TEVETA was established to regulate all forms of technical education and vocational training. All training providers, regardless of ownership, must register with the TEVETA as required by Zambian law.

Compared to the 1969 policy, the 1996 policy was considered broad. It incorporated entrepreneurship development, technical education, vocational training, and covered training at all formal and informal levels (Ministry of Science Technology and

Vocational Training, 1996). Initially, the training offered included agricultural mechanics, automotive mechanics, carpentry and joinery, bricklaying and brickmaking, panel beating, plumbing, sheet metal technology, painting and decorating, radio and television repair, light metal fabrication, and electrical repairs and maintenance. Consequently, with the inclusion of entrepreneurship courses, the policy changed its name from Technical and Vocational Education and Training (TVET) to Technical Education, Vocational and Entrepreneurship Training (TEVET).

The 1996 TEVET policy aimed to improve technical education and vocational training and link it to the requirements of the employment sector. The policy was to facilitate technology linkages between industry and TEVET institutions; ensure that the training environment fostered linkages between industry and vocational training institutions for the industrial experience; and ensure that industries providing industrial attachment were considered for incentives by the Government (Ministry of Science Technology and Vocational Training, 1996). The policy recognised the need for gearing TEVET towards a changing economy. The policy strived to establish a TEVET system capable of balancing the supply of qualified, skilled labour in line with the economy's demands (UNESCO-UNEVOC, 2010).

2.5.3 Vision 2030

Vision 2030 is Zambia's first-ever written long-term plan, expressing Zambia's aspirations by 2030 (Government of the Republic of Zambia, 2006). The policy stipulates that Zambians, by 2030, aspire to live in a solid and dynamic middle-income industrial nation that provides opportunities for improving the well-being of all, embodying values of socio-economic justice. Among other aspirations stipulated in the policy and critical to my study are aspirations to develop:

- a diversified, balanced, and strong industrial sector
- a modern agricultural sector
- an efficient and productive services sector
- technologically proficient and fully able to adapt human resources
- strong and cohesive industrial linkages in the primary, secondary, and tertiary sectors
- sustained high and increasing productivity levels in every factor of production

- well-developed and maintained socio-economic infrastructure and
- an economy by innovating and investing using the country's human and natural resources.

To achieve the above-stipulated aspirations, improving the quality of skills development is very critical. Hence the need to ensure that all institutions charged with the responsibility of producing the required skills to achieve these aspirations do so in line with the ever-changing skills demand by the labour industry. Internationally, vocational education and training delivery are challenged by increasing skills shortages in specific industries and rapidly changing skill requirements (Pillay et al., 2014). Pillay and others further noted that to respond to this challenge, rigid and centralised bureaucracies are increasingly adopting partnerships between institutions and industry to encourage institutions to implement transition programmes to address the local labour market demand strategy that has also been outlined in the Vision 2030 policy document.

Vision 2030 further recognised the need for Zambia to increase skills training output by 2% per annum and to increase equity of access while maintaining internationally validated quality standards, including the quality of instructors (Government of the Republic of Zambia, 2006). However, skills development is hampered by many factors, including poor funding and a lack of qualified instructors. Mainly, TEVET institutions have inadequate training materials and equipment and outdated machinery, making it difficult for their students to cope with the new machinery in the industry when employed (Mulenga & Chileshe, 2020). To resolve such challenges, all TEVET stakeholders must collaborate if the quality of graduates must improve. Without collaboration, it is difficult for the TEVET institutions to supply the needed skilled labour demanded by the economy. Consequently, there is a growing recognition among scholars and policy-makers that a mutual transfer needs to be supported by institutions and or technological systems that mediate the relationship between school and work and generate boundary crossing (Nore & Lahn, 2014). Further research on how collaboration between training institutions and industry must be managed is therefore necessary.

2.5.4 The Fifth National Development Plan (FNDP) 2006 – 2010

Education is important for socio-economic development, hence there is a need to ensure adequate investment in the education sector. The FNDP was developed based on a well-articulated and shared Vision 2030 for the nation to become a prosperous middle-income country by 2030. The theme of the FNDP is broad-based wealth and job creation through citizenry participation and technological advancement (Government of the Republic of Zambia, 2006). The FNDP describes the vision of skills development as that of Zambia developing an “innovative and productive lifelong education and training accessible to all by 2030” (Government of the Republic of Zambia, 2006: 150). To achieve this vision, some of the goals outlined in the document were to:

- Ensure that opportunities exist for all citizens to have equitable access to Early Childhood Care, Development and Education (ECCDE), basic and high school, tertiary education, and technical and vocational training;
- Improve the quality and relevance of education and skills training;
- Increase the number of lecturing staff in TEVET;
- Increase participation of females and people with disabilities in skills teacher training; and
- Enhance skills and qualification levels of lecturing personnel in skills training (Government of the Republic of Zambia, 2006: 150).

The above goals indicate that 42 years after Zambia gained its independence, the country still had challenges developing and sustaining quality teaching personnel in the TEVET sector. Among the strategies outlined to fulfil the goals of improving teacher education for TEVET institutions were that government should increase the number of teaching staff in TEVET, increase participation of females and people with disabilities in skills teacher training, and enhance the skills and qualification levels of teaching personnel in skills training (Government of the Republic of Zambia, 2006). The importance of lecturers, and professional development in TEVET cannot be over-emphasised. Lecturers are essential to sustain and further develop the attractiveness, quality, and labour market relevance of VET (Serafini, 2018).

2.5.5 The Seventh National Development Plan (7NDP) 2017 – 2021

The sustainable development goals have placed critical emphasis on the role of technical and vocational education and training (TEVET) in development (Singh & Shawa, 2021). Owing to this emphasis, governments have tasked TEVET institutions to train graduates who could effectively contribute to development. For Zambia, the Seventh National Development Plan departed from sectoral-based planning to an integrated development approach, “accelerating development efforts towards the Vision 2030 without leaving anyone behind” (Ministry of National Development Planning, 2017: i). The previous development plans had focussed on enhancing the quality of training and increasing its relevance to the needs of the industry. One of the significant achievements recorded was that the government, in partnership with the African Development Bank and the government of the People’s Republic of China, upgraded lecturer qualifications, rehabilitated infrastructure, reviewed curricula, and equipped training institutions in 31 TEVET institutions (Ministry of National Development Planning, 2017).

However, the 7NDP, in line with the Vision 2030, emphasised the need for the Zambian government to increase access to quality skills training. The emphasis arose from Zambia’s continued pyramidal nature of the educational structure, with the masses merely possessing primary education, enabling them to access vocational education and not university education. The 2014 statistics revealed that 12 per cent of the employed had no education (primarily in the agriculture sector), 40 per cent had only primary education, another 40 per cent had secondary education, and 5 per cent had tertiary education (Ministry of National Development Planning, 2017). Strategies to increase access to skills training included enhancing the implementation of the strategies during the Sixth National Development Plan (SNDP). These strategies included expanding secondary school vocational education and training; institution-based learning (IBL); open, distance, and flexible learning (ODFL); workplace-based learning (WBL); and the recognition of prior learning (RPL) assessments, among others.

To ensure sustainable financing for all levels of TEVET, the sub-sector established the Skills Development Fund (SDF), which will be mobilised through a levy collected at 0.5 per cent of the employer's wage bill. The Fund was established under the Skills Development Levy Act No. 46 of 2016, and its implementation is scheduled to commence in the 2017 budget year. (Ministry of National Development Planning, 2017: 23)

To this effect, all employers of TEVET graduates are legally required to pay a skills development levy towards the SDF coordinated by the TEVETA. Funding is directed towards skills development in the formal sector and is expected to focus on higher level skills provided by public or private training institutions in collaboration with employers (TEVETA, 2019). Such efforts indicate the importance of skills development in improving the country's socio-economic landscape. More importantly, the efforts indicate the crucial role of collaboration in enhancing skills development. Although research has devoted considerable effort to finding the determinants of inter-firm collaboration success, Rybníček and Königsgruber (2019) argue that much less is known about industry-university collaborations. Therefore, the need for further research on how successful collaborations can be developed and sustained is justified.

2.5.6 The TEVET Policy of 2020

The broad intentions of the TEVET reforms are to have an effective and efficient TEVET that will facilitate all access, equity, and participation in TEVET; ensure quality demand-responsive training; and ensure employability of TEVET graduates (Government of the Republic of Zambia, 2006). While education attainment remains low in Zambia, some notable achievements have been recorded in the TEVET sector. Among the achievements recorded are the increase in TEVET enrolments, increased construction of new training institutes, and strides to improve the quality and relevance of training through partnering with various sectors to upgrade lecturer qualifications, review curricula, and equip training institutions (Ministry of National Development Planning, 2017). Despite the achievements, achieving diversification in Zambia will require a labour force with functional skills and qualifications supporting practical skills

development. Unfortunately, there still exists a large gap between the skills provided by TEVET institutions and those required by the labour industry.

In 2020, the Ministry of Higher Education developed the National Technical Education, Vocational, and Entrepreneurship Training (TEVET) Policy 2020. This policy is a revised version of the 1996 National TEVET Policy. The revision of this policy was due to the recognition that for the country to attain the Vision 2030, it needs highly skilled and competent citizens, as stipulated in the following extract from the policy.

The 2020 National Policy on TEVET seeks to address several issues that have arisen since the 1996 policy. The evaluation of the TEVET Policy revealed a number of challenges such as an increasing unskilled youth population that continues to result in a high dependency ratio, inadequate infrastructure, obsolete equipment, inconsistencies in the regulatory framework, inadequate quality control systems, inadequate financial and human resources, uncompetitive conditions of service, weak linkages between training and industry needs as well as weak synergies with line ministries and other stakeholders. In this regard, this policy has been designed to address the challenges stated above. (Ministry of Higher Education, 2020: 1)

The 2020 policy recognises the importance of synergies between the TEVET sector, industry, and line ministries. The policy recognises the private sector as a key stakeholder in defining occupational profiles, projecting skills demands, participating in curriculum review and development, financing, and providing work-based learning opportunities. Additionally, the policy suggests that the current TEVET legislation must be reviewed to compel industries to work with TEVET providers, promote joint projects and linkages between TEVET institutions and industry, and facilitate public-private partnerships in financing skills development (Ministry of Higher Education, 2020).

The strategy to compel industries to work with training institutions might increase participation. However, allowing industries to participate based on rewards for their participation willingly would be more beneficial. Compelling industries to collaborate with TEVET providers is synonymous with punishment, a poor reinforcer. According to the social exchange theory, resorting to punishment tends to be prompted by its

function as a social deterrent and the wish to retaliate for serious harm done (Blau, 2017). Additionally, the unfair exercise of power evokes anger and a desire to retaliate for the exploitation suffered. As such, desired results from collaboration might not be fully achieved.

It should be noted that establishing collaborative links with training institutions is a difficult task with an uncertain outcome and is influenced by location, geographic distance, compatibility of interests, shared understanding, and prior collaboration experience (Johnston & Huggins, 2016). If rewards determine the quality of relations and overall outcomes of the intended purpose for the collaboration, compelling industries to work with institutions without stipulating the gains and guidelines might not yield the desired results. Hence, this research needs to help inform institutions and government's decisions and actions on issues regarding collaboration among stakeholders.

2.6 THE IMPORTANCE OF COLLABORATION IN THE PROVISION OF TEVET

The increasing use of technology affects organisational structure and communication, and collaboration processes and fosters a trend toward knowledge-based work activities (Findeisen & Wild, 2022). At the same time, there is a growing need for highly skilled personnel across the globe. As noted earlier, the growing mismatch between skills provided by TEVET institutions and those required by the labour industry will require effective collaboration among all stakeholders. Mgonja (2017) argued that such collaborations create highly skilled and productive graduates to meet the demands of the industry. This section will analyse some studies that indicate the need for collaboration in the skills training industry.

Before analysing the importance of collaborations, partners must understand the collaboration challenges. Rybnicek and Königsguber (2019) argue that while the advantages and potential of these collaborations are well recognised, there are, at the same time, numerous hindrances and challenges to be met, which might lead to failure. Collaboration between training institutions and industry presumably has different success factors because the partners pursue different objectives and face different constraints. This contrast between objectives and constraints potentially enhances the value of collaboration, but it is also a source of complications (Rybnicek

& Königsgruber, 2019). Partners must understand the benefits and challenges of such collaborations before committing themselves. Partners must thus clearly understand their distinct roles to ensure the success of the collaboration and the overall achievement of the set objectives. Hence, this study needs to understand the role of collaboration between TEVET institutions and the industry to determine the factors that may lead to successful collaborations in the Zambian context.

Almeida, Amaral and De Felicio (2015) conducted a study to assess developments and challenges in Brazil's technical and vocational education. Among the notable developments revealed by the study was improved collaboration among stakeholders. For instance, public or private skill providers typically conduct market research with local employers and markets to identify and select the courses that best suit local needs. Together, the VET providers and the employers plan the appropriate ways to train and supply a number of qualified people. However, the study by Almeida et al. (2015) revealed that meeting international standards was still challenging for developing and developed countries. In Zambia, using outdated equipment and the limited number of highly skilled lecturers in training institutions make it difficult for TEVET graduates to meet international standards. Hence the need for collaboration to enhance the quality of skills development programmes.

A study was conducted by Arinaitwe (2021) to identify and understand practices and strategies for enhancing learning through collaboration among a master's degree in vocational pedagogy (MVP) program, vocational teacher training institutions (VTIs), and workplaces in Uganda. The study revealed a need for improved communication between partners through establishing focal persons, providing feedback to collaborating partners, and instituting a policy framework encouraging workplace involvement in VET programmes. In terms of relationship issues, the study revealed a need for collaboration based on a signed memorandum of understanding. This approach is contrary to what is indicated in the 2020 Zambian TEVET policy, where the policy indicates that companies will be compelled to collaborate with training institutions. My study confirms the importance of collaboration between stakeholders and highlights areas that must be improved for this collaboration to be successful.

Anderson and Sanga (2019) conducted a study to establish the level of collaboration between key stakeholders in providing tourism education in Tanzania, specifically tourism training institutions, tourism service providers, and government authorities in Tanzania. The study concerned the qualitative and quantitative mismatch related to the demand for and supply of skills. The study revealed that effective collaboration between tourism educators and businesses is one of the best strategies to ensure the quality of human capital in the industry. However, results indicated that there had been minimal progress in developing linkages between the tourism industry and training institutions offering tourism in Tanzania. They, therefore, proposed a framework for effective partnerships among key stakeholders in the industry. In the same vein, my study also intends to propose contextualised guidelines for effective collaboration between stakeholders in the construction industry in Zambia.

A study conducted by Ngozwana (2018) in South Africa on career aspirations of construction TEVET learners revealed that learners struggled to access practical workplace training. The struggle to access practical workplace training resulted in many learners failing to complete their qualifications and qualify as artisans. The study recommended that the construction industry must work closely with TEVET colleges to explain the roles involved in various careers within the industry and design college programmes that meet the requirements of industries that absorb their learners (Ngozwana, 2018). This recommendation emphasises the importance of industry involvement in producing qualified technical personnel. However, this recommendation would not be fruitful without clear and favourable policies to govern the interaction between industry and TEVET institutions. As such, further research on collaboration between TEVET/TVET stakeholders is needed.

2.7 NEED FOR FURTHER RESEARCH IN CONSTRUCTION SKILLS

Despite the numerous efforts by the Government of the Republic of Zambia (GRZ) to mitigate the challenges the TEVET sector has been facing through developing various policy documents to guide the sector, the construction industry in particular is still facing challenges in sourcing highly skilled labour. The construction industry plays an integral part in the development of the economy. All infrastructure projects such as roads, stadia, hospitals, schools, and residential and commercial property require the

engagement of highly skilled individuals to avoid the wastage of already scarce resources (Ministry of National Development Planning, 2017). Despite recording some positive developments in the TEVET sector, such as the tremendous increase of TEVET institutions, which stood at 297 by 2020 (TEVETA, 2021) from 16 in 1986 (Mwanakatwe, 2013), the sector still has very few institutions offering more than two types of construction skills. The first diploma course in construction under TEVETA was launched in 2021. This indicates a deficit in the industry's number and quality of highly skilled workers. Therefore, understanding the role of collaboration between TEVET institutions and industry in improving the quality of construction skills will not only help overcome the skills mismatch challenge but will also help to improve the state of infrastructure in the country, absorb youths into gainful employment and reduce poverty as stated in the Zambian Seventh National Development Plan.

Zambia has several well-designed policies on TEVET, which have not been implemented effectively due to diverse reasons, among them poor mechanisms for implementation, corruption, and inadequate funding (Aurick et al., 2017; Masaiti & Mwale, 2017). Additionally, improving the quality of skills training requires the recapitalisation of TEVET training institutions and reconfiguring how TEVET skills are delivered (Ministry of Finance and National Planning, 2022). Similar challenges are revealed in other studies in African countries. For instance, Akanbi (2017) studied the prospects of technical and vocational education and training (TVET) in Nigeria by bridging the gap between the policy document and implementation. The study revealed that for any policy to succeed, some inbuilt mechanisms must make room for implementation, monitoring, supervision, feedback, evaluation improvement, reorientation, effectiveness, and the like. The paper recommended that TEVET policies must satisfy all the properties of a reasonable policy identified above to bridge the gap between implementation and policy. My study focused on the role of collaboration between training institutions and industry in enhancing the implementation of these policies.

The main research gaps revealed by this review regarding collaboration between TEVET institutions and industry suggest that there is a need for further research in graduate employability (Neroorkar & Gopinath, 2020), development of further learning studies and change of content in vocational education (Asplund & Kilbrink, 2020) work

experience, academic and pedagogic competence (Papier, 2010); contextualisation of continuing professional development programmes (Lloyd & Payne, 2012) and collaboration between training institutions and industry (Ngozwana, 2018; Raihan, 2014). My study, however, focussed on collaboration between TEVET institutions and industry because most studies reviewed suggested collaboration as a solution to skills mismatches and other challenges that the TEVET sector faces.

2.8 SUMMARY

I have discussed various studies and other technical and vocational education literature in this chapter. The review focused explicitly on graduate employability, existing policies on TEVET, contextualisation of CPDs, and the role of collaboration in skills development. The reviewed literature presents a gap in TEVET studies aimed at understanding collaborations between training institutions and industry using phenomenological and social exchange theory lenses. Even though several studies reviewed were qualitative, this study was necessary as hermeneutic phenomenology helped uncover and understand the lived experiences of TEVET stakeholders with collaboration. Additionally, most of the literature on collaboration in TEVET presents data collected from other countries, justifying the need to conduct a study concerning the Zambian context. The next chapter presents the theoretical and conceptual framework underpinning this study.

CHAPTER 3

THEORETICAL AND CONCEPTUAL FRAMEWORKS

3.1 INTRODUCTION

The previous chapter reviewed related technical and vocational education literature and located it within this research. The review justified the need to research collaboration between Zambian TEVET institutions and the industry. This chapter presents and discusses the theoretical and conceptual frameworks of this study.

It is important to note that although various researchers have defined theoretical and conceptual frameworks differently, the ultimate purpose of having a theoretical and conceptual framework in research is to serve as a guide through which a researcher collects and analyses his/her data. A theoretical framework is a set of interrelated constructs that appear in a research study as an argument, a discussion, or a rationale to help predict phenomena that may occur in the world (Creswell, 2014b). According to Varpio et al. (2020: 990), “a theoretical framework is a logically developed and connected set of concepts and premises - developed from one or more theories - that a researcher creates to scaffold a study.” Using a theory or theories in research helps to connect pieces of research data to generate findings that fit into a larger framework of other studies, thereby enhancing the robustness, rigour, relevance, and impact of research findings (Stewart & Klein, 2016).

A conceptual framework, on the other hand, is a total, logical orientation and association of anything and everything that forms the underlying thinking, structures, plans, practices, and implementation of an entire research project (Kivunja, 2018). A conceptual framework is thus a hypothesised model identifying the concepts under study and their relationships. For instance, the framework identified policies and collaborative activities as key concepts in this study. The study analysed the role of policies/social structure in influencing stakeholder roles and collaborative activities.

A conceptual framework is also defined as a sketch of the preferred approach in the research outlining the relationships and the desired effects, forming independent and dependent variables, respectively (Mugenda & Mugenda, 2003; Thibaut, 2017). In my study, exploring collaboration between TEVET stakeholders was guided by the

assumption that stakeholder roles must be guided by policies or social structure, which must also clearly stipulate the administrative procedures for implementing collaborative activities that lead to enhanced skills development. Therefore, a conceptual framework is the current version of the researcher's map of the investigated territory. Not only does it help to discover and expose certain relationships between concepts, but a conceptual framework is also a network of interlinked concepts that provide a comprehensive understanding of a phenomenon or phenomena (Jabareen, 2009). Conclusively, a conceptual framework is not merely a collection of concepts but a construct in which each concept plays an integral role.

3.2 THE SOCIAL EXCHANGE THEORY (SET)

The social exchange theory (SET) posits that much of social life involves interactions between individuals or corporate actors in relationships, groups, organisations, or networks that can be viewed as social exchanges (Cook & Emerson, 2013). In my study, social exchanges between TEVET stakeholders were explored. It is important to note that SET is a theory of sociology and management that uses economics and behavioural psychology to explain behaviour (Zoller & Muldoon, 2019).

A theory attempts to explain and predict a particular phenomenon (Fouché et al., 2011). Therefore, the goal of using SET in this study is to explain collaboration between training institutions and industry and not just to describe it. SET describes the behavioural interactions between two or more individuals and how these behavioural interactions reinforce the other's behaviour (Homans, 1974). Both actors exchange with one another, believing that the exchange would produce benefits for both. The theory was thus used to explain participants' experiences with collaboration and analyse how stakeholders benefitted from the collaboration.

3.2.1 The origins of the social exchange theory

According to Cook and Emerson (1987: 53), "exchange theory has been one of the major theoretical perspectives in the field of social psychology since the early writings of Homans (1961), Blau (1964), and Emerson (1962)". Various researchers have considered George Homans, a prominent sociologist from Harvard University, as the creator or the father of SET (Muldoon et al., 2018; Zoller & Muldoon, 2019). The social

exchange theory has its roots in Homans' paper published in 1958 on social behaviour as exchange. The paper argued that social behaviour is influenced by an exchange process that maximises benefits and minimises costs (Homans, 1958). SET has been applied to various exchanges ranging from tangible (gifts) to intangible exchanges that create perceptions or establish social equity within groups leading to trust and power in organisations (Muldoon et al., 2018). Additionally, Homans (1961: 13) argues that social exchange is "the exchange of tangible or intangible activity, rewarding or costly, between at least two persons". The cost was viewed primarily in alternative activities or opportunities foregone by the actors involved. Homans argues that man's behaviour results from perceived payoffs regardless of the provider of those payoffs (Homans, 1961). He noted that the non-human environment or other humans could provide the payoffs. His primary focus was on the social behaviour that emerged because of the social processes of mutual reinforcement and the lack of it.

Another early writer on SET is Peter Michael Blau, a sociologist whose works on SET were influenced by Homans (1961) publication on social behaviour (Blau, 2017). According to Blau, social exchange refers to the voluntary actions of individuals that are motivated by the returns they are expected to bring and typically do bring from others in a relationship. He focused primarily on the reciprocal exchange of extrinsic benefits and the forms of association and emergent social structures created by this kind of social interaction. However, he argued that if one person does another a favour during the exchange, the nature of the expected future return is not stipulated in advance.

It should be noted that various authors have been credited for originating SET. These include early writers on social exchange, such as Smith, Thibaut and Kelley (Emerson, 1976). Others include Gouldner, Skinner and Stigler (Muldoon et al., 2018). Nevertheless, early social exchange theorists agree that inequitable rewards are discomforting; both under-rewards can produce psychological tension (Nord, 1973). For instance, employers' failure to give incentives to students on attachments might lead to underperformance. At the same time, frequent rewards might also lead to underperformance due to a lack of appreciation by the students as they will now treat incentives as a norm with less value and nothing extraordinary. Additionally, recent researchers on SET such as Cook, Ahmad, Cropanzano and Stafford argue that we

engage in many exchanges daily with a wide range of actors most often embedded in the groups, networks, organisations and institutions we inhabit (Ahmad et al., 2023; Cook et al., 2013; Cropanzano et al., 2017; Stafford & Kuiper, 2021). This argument makes it possible for SET to be applicable and generalisable to various fields of study.

3.2.2 Claims made by the social exchange theory

The primary claim of SET is that individuals engage in dyadic relationships to maximise both intangible and tangible personal outcomes that would otherwise be difficult to achieve independently (Molm, 2006). The theory proposes that social behaviour results from an exchange process meant to maximise benefits and minimise costs. Therefore, before engaging in any collaboration, people weigh the collaboration's potential benefits and risks (Rusbult & Van Lange, 2003). Thus, the study assumed that effective collaboration between TEVET stakeholders would be achieved by maximising the benefits and reducing the risks or costs for all stakeholders. For instance, if the negatives or costs outweigh the positives or benefits, as illustrated by the pendulum illustrated in Figure 3.1, this would lead to reduced participation or failure of a collaboration.

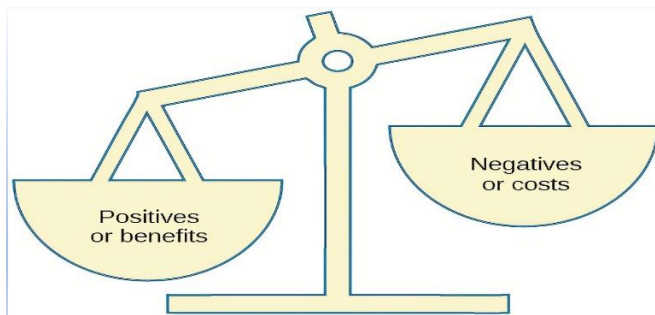


Figure 3.1 Positives (benefits) versus negatives (costs) of social exchange (Adapted from Rusbult and Van Lange (2003).

Homans made five key propositions that framed the study of social behaviour in terms of rewards and punishments (Cook et al., 2013; Homans, 1974). The propositions are summarised in Table 3.1.

S/N	PROPOSITION	CLAIM
1	Success	Behaviour that generates positive consequences is likely to be repeated.
2	Stimulus	Behaviour that has been rewarded on such occasions in the past will be performed in similar situations.
3	Value	The more valuable the result of an action is to an actor, the more likely that action is to be performed.
4	Deprivation-satiation	The more often a person has recently received a particular reward for an action, the less valuable is an additional unit of that reward.
5	Distributive justice	People will become angry and aggressive when they do not receive what they anticipate or a fair rate of return.

Table 3.1 Summary of propositions that framed the study of social behaviour in terms of rewards and punishments.

Generally, social exchange theorists advance two broad perspectives: utilitarianism and reinforcement. A critical distinction between these two broad perspectives is whether the actor is forward-looking or backward-looking to determine what to do next (Heath, 1976). While utilitarianism theories generally look forward and value future rewards, reinforcement theories look backwards, valuing what has been rewarding to them in the past. In the same vein, the behaviour of TEVET stakeholders during the collaboration can either be influenced by their experience with collaboration or their perceived future benefits of collaboration.

All exchange theories share a standard set of analytical concepts: actors, resources, structures, and processes. Participants in exchange, called actors, can be individual persons or corporate groups, and specific entities or interchangeable occupants of structural positions. When an

actor has possessions or behavioural capabilities that are valued by other actors, those possessions, or capabilities are resources for that actor's relations with those others. Social exchange resources include not only tangible goods and services but also capacities to provide socially valued outcomes such as approval or status. Actors seek to obtain more of the outcomes that they value and others control, and they do so through the process of social exchange. (Molm, 2003: 2)

In view of the above-outlined analytical concepts, it was assumed that the success of the collaboration between TEVET stakeholders could be related to several costs and benefits, which actors must be fully aware of before committing themselves to collaborate. It is also necessary to stipulate guidelines on managing actors, resources, structures, and processes in government and institutional policies.

3.2.3 Criticisms of the social exchange theory

Homans' work was often criticised for being too reductionistic and underplaying the significance of the institutional and social processes and structures that emerge from social interaction (Cook & Emerson, 1987). His work was primarily criticised for taking the principles of psychology as the basis for sociological phenomena. Homans' distributive justice rules were also criticised for representing the first sophisticated intellectual argument and justification for exploiting social exchange transactions to maintain the power structure in society (Muldoon et al., 2018). The critics argued that exploitation of social exchange transactions emerged from the self-interest of those in power. According to Blau (2017), an expectation of rewards makes association attractive, and personal bias taints perception. As such, the theory has been criticised for valuing selfishness over selflessness.

Another criticism directed at Homans' theory of social exchange was that it failed to explain complex actions arising from irrational decisions such as altruism. Critics argued that people do not always make rational decisions. For instance, Cropanzano and Rupp (2008) argued that the world of Homans was one of self-interest and he could not explain how relationships come to pass. Additionally, rather than viewing social exchange as a manifestation of a trust-based social bond between two parties, it was seen as a strategy for maximising self-interest (Gilliland, Steiner & Skarlicki,

2008). Homans' views made people seem individualistic and reward-seeking. His views thus ignored that people also make selfless decisions or engage in relationships that are not motivated by rewards, but rather by humanity or empathy. Additionally, research on institutional-based trust suggests several ways public organisations can produce trust in their environment other than rewards (Thomas, 1998). For instance, institutional-based trust is produced through institutions that have become accepted as social facts and are seldom questioned.

In conclusion, the whole theory revolves around rewards only, and it neglects the cultural contexts and variations of cultures. Variations in cultural contexts have a bearing on how people make decisions, as actions acceptable in one culture may be unacceptable in another. Gergen (1969) argued that SET's view of man is not flattering; he is seen as basically motivated by his own needs, utilising all cognitive and behavioural means at his disposal to achieve these ends in a complex world - a view that has been argued by many to be misleading. Some researchers have avoided using this theory to guide their studies.

3.2.4 Justification for incorporating the social exchange theory

Despite the above-stated criticisms of SET, this study has several reasons for its use above any other. Later theories related to the social exchange theory, such as the equity theory, resource theory and interdependency theory, also emphasise the role of networks in exchange relationships. However, the exchange theory has remained one of the major theoretical perspectives on social interaction and social structure (Cook & Emerson, 2013). SET is also considered one of the most prominent theories in the organisational behaviour literature, making it one of the most researched, validated, and influential theories in the field (Zoller & Muldoon, 2019). Zoller and Muldoon (2019) also argued that SET has been used to describe a wide variety of relationships, from supervisor-subordinate relationships to romantic relationships to relationships with family members to friends and acquaintances. The SET serves as a foundation in many fields, including job performance, organisational support, intra-organisational relationships, trust, personality research, organisational commitment, job satisfaction, turnover, justice, and workplace safety. SET's popularity thus emanates from the ease with which it can be tested and how well it can be applied to

a wide variety of social situations (Emerson, 1976). Similarly, my study adopted SET because of its relation and applicability to organisational relationships and behavioural studies. Applying SET to explore the collaboration experiences of TEVET stakeholders was easy and justified as it helped collect rich experiences from participants and helped in the analysis of those experiences.

Secondly, this study used SET as a theoretical lens because of its popularity across sociological and economic studies. This study did not only consider the social aspect of how successful collaborations are maintained, but it is also interested in the economic value of the collaborations. Additionally, Muldoon et al. (2018) argued that studies of social exchanges moved from a macro level of a society to a micro level of an organisation, proving SET's flexibility and generalisability. The theory was also easy to apply as its assumptions could easily be understood and related. The social exchange theory further offered several mechanisms by which uncertainty may be reduced or mitigated, such as through trust, repeated exchanges, reputation, information regarding the exchanges of others, and institutions (Corcoran, 2013).

Despite Homans being criticised for being culturally insensitive, Homans recognised cultural differences; he desired to develop covering laws with his belief that individuals were alike everywhere. He believed that culture was not a viable explanation because it became a catch-all for differences without serious consideration of such differences (Homans, 1983). Homans believed cultural differences emerged from interactions between various disconnected members of society, not simply from culture (Muldoon et al., 2018). In addition, different forms of social interactions are built upon reciprocal exchanges, facilitating reciprocity, psychological contracts, and mutual obligations (Oparaocha, 2016). The theory thus describes how relationships can be developed and sustained. Using this theory makes it possible to build and sustain more balanced relationships.

Finally, other researchers such as Emerson (1976) and Cook and Emerson (2013) have argued that in criticising SET, critics must understand that SET is not a theory at all. "It is a frame of reference within which many theories - some micro and some more macro - can speak to one another, whether in argument or mutual support" (Emerson, 1976: 336). This view of SET makes it applicable in all situations regarding

relationships. Even though human beings do not always make decisions that will benefit themselves, it cannot be denied that benefits or lack of benefits determine the fate of most relationships. This view of SET validates its assumption that for an exchange to last, it should have higher benefits than costs to both parties. Similarly, my study assumed that all stakeholders must enjoy higher benefits than costs for collaboration to be effective.

3.3 COLLABORATION IN EDUCATION AND TRAINING

The Vocational Education and Training (VET) curriculum aims to provide students with the necessary skills to make them employable and successful in their specialities (Kotsifakos et al., 2020). To achieve this, various researchers have suggested collaboration between VET providers to mitigate challenges in training VET students and maximise the benefits of the training (Arinaitwe, 2021; Kibuka-Sebitosi, 2015; Naziz, 2019; Oviawe et al., 2017; Raihan, 2014). Since the provision of TEVET is extremely expensive compared to theoretical courses, mobilising teaching and learning resources to meet the demands of 21st century skills as demanded by industry requires a collaborative effort from all stakeholders. Such collaborations are necessary, especially in sub-Saharan Africa, where public allocations toward education and training are often insufficient to ensure quality education and training.

Furthermore, to procure the knowledge demanded presently and, in the future, the industry must cooperate with education institutions and other surrounding agencies to upgrade existing and develop education programmes to meet these demands (Lund & Karlsen, 2020). As such, my study views collaboration between stakeholders as crucial in ensuring that TEVET graduates are employable in the dynamic labour industry and possess the skills to make them self-employed. This view prompted the Zambian government to include entrepreneurship in the Zambian TEVET curriculum. All TEVET students in Zambia are exposed to entrepreneurship training. Entrepreneurship education, however, should not just make a student aware of the entrepreneurial career option but should instil the mindset and attitudes and develop the knowledge, skills, and abilities to identify, evaluate and exploit opportunities in the market (Mahlaole & Malebana, 2021). This change of mindset is what might lead to increased productivity and unemployment.

A framework in which collaboration must occur is presented in Figure 3.2. The study viewed policies as key in guiding collaborative activities (relationships), which might lead to enhanced skills development (outcome).

For collaboration between TEVET institutions and industry to be successful, stakeholder roles must be guided by public, training institutions and company policies. These policies must also clearly outline the administrative procedures to be followed during collaborative activities between training institutions and the industry. With properly formulated and well-coordinated policies on collaboration, the quality of skills development is expected to be enhanced. The key elements of the framework are discussed in the following sections.

3.3.1 The role of policies in administrative procedures

The role of TEVET in national development is no longer arguable, especially in the face of a dwindling economy, mass unemployment and the irrelevance of some academic content to societal needs (Akanbi, 2017). TEVET plays a vital role in poverty alleviation and sustainable development because it enhances pathways of career growth and produces the required skilled workforce for the industry (Hassan & Awan, 2019). Among the many factors that lead to successful education systems, policies play a crucial role in guiding actions that lead to success. This study thus views policies at an institutional and national level as crucial in guiding collaborative activities that lead to enhanced skills development.

3.3.1.1 Public policies

Policies are more than just objects of administrative action – they are political forces in their own right that can alter critical components of administration, including phenomena such as organisational capacity, structures, routines, authorities, motivations and cultures (Moynihan & Soss, 2014). In South Africa, as is the case with other countries in sub-Saharan Africa, the focus has excessively been on supply-side interventions and not increasing the number of skilled personnel who could contribute to increased national productivity (Needham, 2019). TEVET in Zambia is still governed by Act No. 11 of 2005, an act formulated more than twenty years ago.

COLLABORATION BETWEEN TEVET INSTITUTIONS AND INDUSTRY

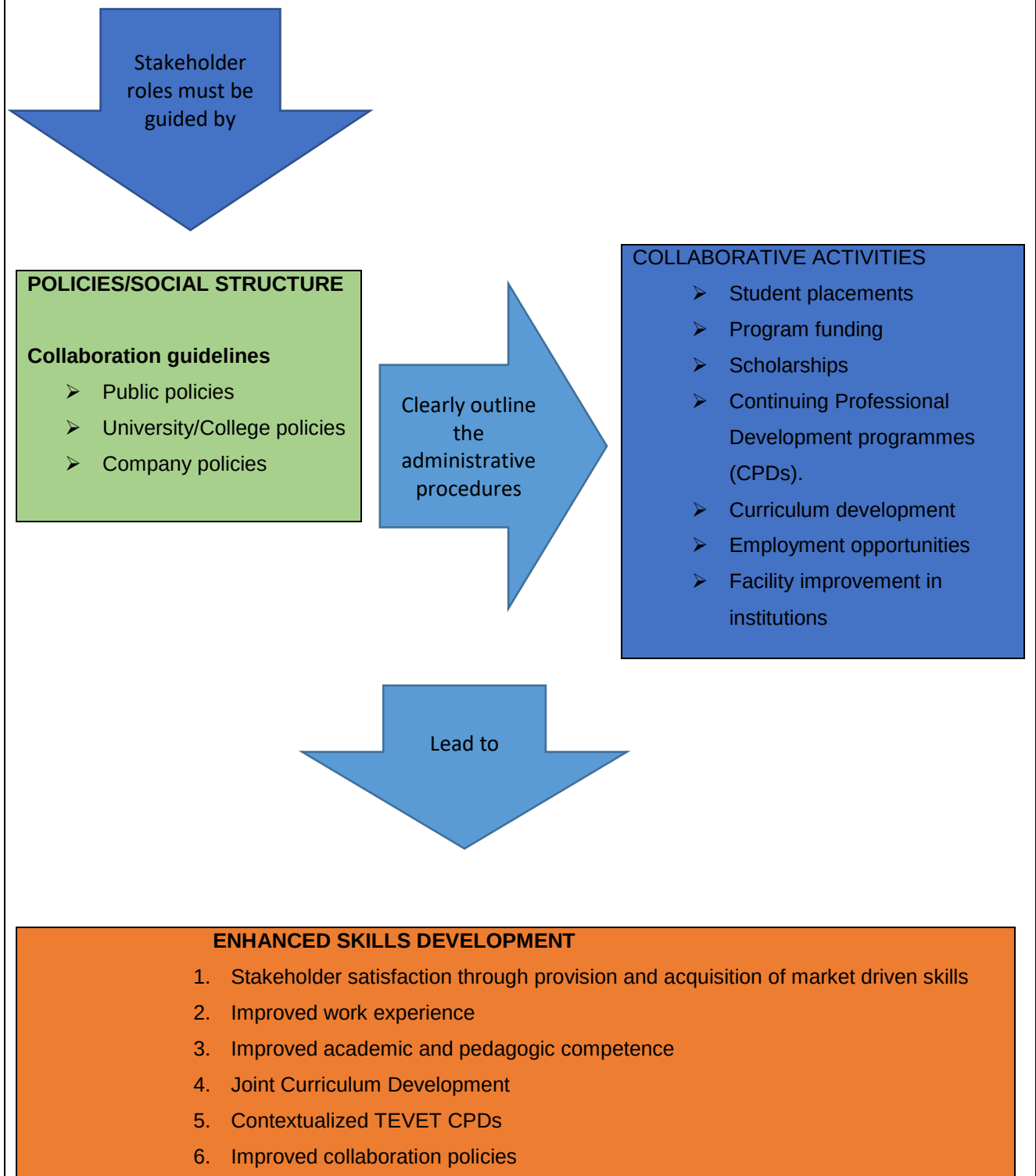


Figure 3.2: A framework for collaboration between TEVET institutions and industry

Even though the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) included collaboration in its TEVET policy of 2020, the policy does not clearly state how relations between industry and TEVET institutions must be developed and sustained. This fragmented and diffused policy structure that currently

exists in developed and developing countries is a significant barrier to examining the effectiveness of TEVET systems (Alagaraja et al., 2014). As such, my study viewed public policies as crucial in formulating and sustaining successful collaborations between TEVET institutions and industry.

3.3.1.2 University/College policies

The need for institutional-workplace collaboration (IWC) in matching the skills provision to the needs of enterprises is a recurring theme in recent VET developments (Arinaitwe, 2021). Collaboration between universities and industries is critical for skills development (Guimón, 2013). Nevertheless, practical management of collaboration between training institutions and industry is often hampered by procedural rigidity either through the absence of decision-making protocols to reconcile conflicting priorities or through the inconsistent implementation of existing policies (Alexander et al., 2020). It is, therefore, critical that well-outlined policies govern both short-term and long-term collaborations between training institutions and the industry. This will ensure that stakeholders engage in such collaborations with well-informed guidelines on the procedures and the benefits of the collaboration.

3.3.1.3 Company policies

Other challenges hampering successful collaboration between training institutions and industry include contradictions linked to short time frames for collaborative activities, unsynchronised activity plans, contradictory working cultures, lack of a common understanding of the objectives and work methods of the collaborative activities, lack of feedback to actors, and an absence of a collaboration focal person (Arinaitwe et al., 2022). Therefore, companies must include in their policies clearly stipulated guidelines on how they must collaborate with training institutions so that they can produce graduates who will suit their needs as TEVET graduate employers.

3.3.2 Collaborative activities in skills development

Since TEVET institutions' output (the graduating students) are the input (employees) for industries, industrialists must move from the receiving end to the participative end and collaborate with academia to ensure successful employability attributes among graduates (Abbas, Kumari & Al-Rahmi, 2021). In addition, to bridge the gap between

skills developed by TEVET institutions and skills required by TEVET graduate employers, various researchers have stressed building collaboration between TEVET institutions and industries, including various collaborative activities (Raihan, 2014). Among other collaborative activities, my study concentrated on student placements, programme funding, scholarships, continuing professional development programmes (CPDs), joint curriculum development, employment opportunities and facility improvement in training institutions. To ensure the success of these collaborative activities, it is vital that there must exist public policies, university/college policies, and company policies to guide the implementation and guarantee continuity.

3.3.2.1 Student placements

Student placements, also known as job placements, industrial attachments, or internships in TEVET, are crucial to work-integrated learning (WIL). Student placements refer to the formal placement of trainees in the workplace to facilitate the achievement of specific learning outcomes that could lead to their employability upon completing a training programme (Choy & Haukka, 2009; Ferns et al., 2016). Depending on the duration of the training programme, students are attached to industries offering employment in line with their skill set for a stipulated timeframe to practice the skills taught in class. The longer the programme, the longer the placement. The study viewed policy-guided collaboration between TEVET institutions and industry as key to ensuring that students get the best experience and exposure during student placements.

3.3.2.2 Program funding

Producing a workforce with the industry's required skills is quite challenging (Hassan & Awan, 2019). Among many factors, finances have proved to be a considerable challenge for most public training institutions in Zambia. Poor funding of public institutions emanates from meagre national budgetary allocations toward the education sector, which has prevailed for several years (Ministry of National Development Planning, 2017). Undeniably, the funding available for TEVET determines the level to which adequate qualified staff, teaching and learning materials are provided. TEVET relies significantly on teaching and learning equipment which are often very expensive (Osidiye, 2019). As such, the lack of funding to purchase up-to-

date teaching and learning equipment is a significant constraint inhibiting the training of skilled and employable graduates (Oketch, 2015).

National TEVET systems must be transformed in terms of efficiency, quality and performance to intensify the employability rate of TEVET graduates (Khirotadin et al., 2019). The Zambian government must enhance its public-private partnerships to include shared funding of TEVET programs. The study viewed shared responsibilities such as funding as key in solving problems that emanate from lack of funding and inhibit practical skills development.

3.3.2.3 Scholarships

Apart from improving responsiveness to the ever-changing skill demands by companies and communities and increasing productivity and wage levels, TEVET can also reduce access barriers to the world of work. The significance of TEVET and the world of work also include providing skills development opportunities for low-skilled people who are under-employed or unemployed, out-of-school youth and individuals not in education, employment and training (Osidiye, 2019). More importantly, Zambia still suffers from the highest poverty levels in the sub-Saharan region, with much of its population living below the international poverty line (Koo, Mamun & Martin, 2021). Zambia remains one of the poorest countries in the world, with about 60% of its population living under two United States dollars a day (Jöst & Lust, 2022). Such poverty levels indicate that many Zambian citizens cannot finance their education. Hence, various ways of developing scholarships for the underprivileged must be explored to increase access to skills training.

Consequently, the Zambian government and some training providers have introduced bursary schemes (Ministry of Higher Education, 2020). However, ensuring that various types of persons access the TEVET system remains a significant challenge in most African countries. In Zambia, efforts to meet this challenge are being addressed by encouraging various stakeholders to be involved in training provision by providing scholarships and encouraging distance learning (Eicker et al., 2017).

3.3.2.4 Continuing professional development programs (CPDs)

Policy frameworks for technical and vocational education and training (TEVET) and adult and continuing education and training (ACET) lecturers require that the work-integrated learning (WIL) element of programmes include WIL in appropriate ‘industry settings’ to ensure that TEVET lecturers develop expertise in both teaching their subjects and preparing their students for the demands of the workplace. (Taylor & Van der Bijl, 2018: 126)

The above statement underscores the relevance of involving industry in improving the quality of TEVET graduates and the pedagogic competence of TEVET lecturers. According to Vedung (2017), evaluation is the process of distinguishing the worthwhile from the worthless, the precious from the useless and looking backwards in order to be able to steer forward better. In this vein, since keeping up with the industry needs entails constant curriculum revision, lecturers must also undergo continuous training programmes to keep abreast with current content and pedagogies. There is a need for continuous evaluation and improvement of lecturers’ training programmes to ensure that lecturers are well-equipped to deliver the much-needed skills required by the industry with expertise. These competencies will help TEVET educators adapt and adopt best practices to meet society’s demands and contribute effectively to the economic growth of the country (Ismail et al., 2018). Thus, my study views CPDs as essential in enhancing the quality of skills being developed in Zambian TEVET institutions.

3.3.2.5 Joint curriculum development

A relevant curriculum can be defined as a “curriculum that provides students with the opportunity to develop vocational knowledge in their chosen occupations” (Hiim, 2017: 13). Nevertheless, curriculum-making is challenging because many interrelated issues must be considered (Green, Roberts & Brennan, 2021). Specifically, TEVET and industry should work together to ensure that students are given the proper guidance at the right time and that curricula scopes, content and standards are relevant to the requirements of the employers (Usman & Tasmin, 2015). TEVET institutions and industry must coexist as necessary partners to produce industry-relevant skills. Such

joint efforts will go a long way to bridge the gap between the ideal in the school and the reality in the world of work (Usman & Tasmin, 2015). My study, therefore, viewed joint curriculum development between TEVET institutions and industry as non-negotiable and relevant in cultivating TEVET students' required skills and knowledge.

3.3.2.6 Employment opportunities

TEVET involves “acquiring knowledge and skills for the world of work to increase opportunities for productive empowerment and socio-economic development in knowledge economics and a rapidly changing work environment” (Ayonmike, Okwelle & Okeke, 2015: 25). For the Zambian TEVET to effectively respond to the need of industry, it must combine education and employment. The education-employment linkage theory defines this combination in terms of “power-sharing between actors from the education system and their counterparts in the employment system over critical processes in the curriculum value chain of curriculum design, curriculum application (program delivery), and curriculum updating” (Caves, Baumann & Renold, (2021a: 1). This combination will ensure that TEVET institutions produce highly skilled graduates who can match the dynamic labour industry needs. This study thus viewed collaboration between TEVET institutions and industry as key to securing employment opportunities for TEVET graduates.

3.3.2.7 Facility improvement in training institutions

Employers' demand for complex skills and potential labour market entrants emanate from the changes in the global market regarding the nature of work and the ever-changing technology (Alagaraja & Arthur-Mensah, 2013). On the one hand, research has indicated that collaboration and appropriate infrastructure between vocational schools and vocational work enterprises are preconditions for improving curricula and learning (Hiim, 2017). On the other hand, “it is easier to build schools, abolish fees, recruit more lecturers, and instruct parents to send their children than it is to ensure that schools, lecturers, and students are equipped and motivated for teaching and learning” (Hickey & Hossain, 2019: 1). These conflicting facts indicate the difficulty with TEVET institutions in developing countries like Zambia to offer technical and vocational skills training.

Owing to the above-stated factors, my study agreed with some researchers who argued that deeper collaborations with employers could aid in equipment use, mentoring, training and financial resources (Ayonmike et al., 2015). Industries are thus viewed as key in ensuring that institutions are well-equipped with various technologies and equipment their prospective employees require to acquire the needed skills.

3.3.3 The role of collaboration in skills development

Besides advancing national economic development, TEVET is also a critical means to reduce poverty (Taua'a & Penaia, 2021). According to statistics, of the 420 million young people in Africa, more than 140 million are unemployed, and another 130 million are underemployed and in working poverty (Cieslik, Barford & Vira, 2021). To create a positive change in these statistics, African governments cannot solely alleviate the many changes TEVET institutions face, resulting in skills matches. As such, the collaboration between TEVET intuitions and industry is critical in ensuring that TEVET fulfils its role of helping alleviate poverty and creating meaningful employment for the masses. Collaborations between vocational institutions and industries will create a positive impact by sharing additional knowledge and consensus to reduce the mismatch of industrial needs among graduates (Ramli & Abd Wahid, 2021).

3.3.3.1 Stakeholder satisfaction

Stakeholder satisfaction can be guaranteed if collaboration is guided by clearly stipulated policies that are easy to follow and implement. Policy formulation should thus take into consideration the needs of all stakeholders. For instance, the following questions outlined by Sidney (2017) during policy formulation must be adequately answered:

- What is the plan for dealing with the problem?
- What are the goals and priorities?
- What options are available to achieve those goals?
- What are the benefits of each of the options?
- What externalities, positive or negative, are associated with each alternative?

Applying the SET principles to this study, policies are critical in ensuring stakeholder satisfaction by identifying and solving problems affecting all stakeholders.

3.3.3.2 Improved work experience

This study views TEVET graduates as having needs beyond employment. The skills developed in TEVET institutions should bring about self-reliance if one fails to get salaried employment and enhance the industrialisation process (Musyimi et al., 2018). As such, TEVET students require more than mere employability and productivity skills. TEVET students must thus be exposed to many other skills to equip them for diverse work environments. For instance, TEVET graduates might be involved in the goods and services market as consumers, suppliers or producers and managing household or firm finances, among other work environments, which require skills beyond supplying labour and producing goods and services (Okumu & Bbaale, 2019). Hence my study viewed improved work experience as critical in enhancing the quality of skills development.

3.3.3.3 Improved academic and pedagogic competence

In TEVET institutions, lecturers face essential difficulties in the teaching process due to a wide variety of students' special educational needs and students' lack of basic competence, motivation, concentration, attention, confidence and background knowledge, among other aspects (Bacca et al., 2015). However, other researchers have considered lecturers' efficiency, the adequacy and accessibility of effective teaching and learning facilities and materials, and the preparedness of graduates to meet the challenges of life and solve societal problems as significant challenges (Ayonmike et al., 2015). To respond to the various challenges regarding teaching and learning, a thematic review of trends in entrepreneurial research from 2010 to 2020 emphasised the need to revise present TEVET educational methodologies and strategies (Ibrahim et al., 2022). The studies reviewed revealed that efficient TEVET educational techniques and strategies help young people become skilled and choose self-employment rather than relying on others to hire them (Chen et al., 2015; Mwasalwiba, 2010; Ana et al., 2017; Perera & Nishantha, 2020; Värlander, Sölvell & Klyver, 2020).

3.3.3.4 Contextualised CPDs

The quality of TEVET lecturers remains the most prominent factor affecting generating workers with qualified knowledge and skills (Musyimi et al., 2018). TEVET lecturers should continuously be subjected to CPDs if they should provide learners with industry-demanded skills. Through CPDs, lecturers can acquire the critical teaching competencies to teach effectively. TEVET teaching competencies are an integrated set of technical, learning, methodological, and human and social competencies needed for effective performance in various teaching contexts and didactic approaches (Ismail et al., 2018).

It must also be noted that, with vocational education varying across different countries, the profession of vocational lecturers differs from one setting to another (Antera, 2021). Different understandings exist within the diverse practices of TEVET lecturers and teacher educators, and different types of knowledge and pedagogy are learnt, used, and transformed (Lucas, 2012). As such, countries must develop contextualised CPDs to impart industry-demanded skills. For instance, Finland, Germany, Singapore, Chile, and many others have been reforming their TEVET systems to adapt them to each country's economic growth (Ibrahim et al., 2015).

3.4 SUMMARY

In summary, the multifaceted nature of TEVET requires a wide range of activities to succeed (Ayonmike et al., 2015). Collaboration between TEVET institutions and industry thus has the potential to alleviate various challenges facing the TEVET sector in Zambia. Succeeding in an increasingly competitive world market will require skilled personnel ready to learn, grow and adapt to challenging markets and techniques (Usman & Tasmin, 2015). Researchers have argued that a country's skill levels define the extent of its innovations and abilities (Nundkumar & Subban, 2018). Conclusively SET emphasises interdependent and contingent exchanges by individuals as the bedrock for all societal transactions and relationships (Oparaocha, 2016). A phenomenological approach coupled with the SET was thus the best approach to exploring collaboration between TEVET institutions and industry.

This chapter has discussed the study's theoretical and conceptual framework by explaining the chosen methodology, theory, and concepts in the framework. The chapter discussed the origins, claims, criticisms, and justification for incorporating the social exchange theory (SET) and unpacked the concepts by explaining the administrative procedures, collaborative activities, and the role of collaboration in skills development. The framework followed the notion that a theoretical and conceptual framework provides not a causal/analytical setting but an interpretative approach to social reality (Jabareen, 2009) and a justification for why a given study should be conducted (Varpio et al., 2020). I will discuss my study's research methodology and design in the next chapter.

CHAPTER 4

RESEARCH METHODOLOGY AND RESEARCH DESIGN

4.1 INTRODUCTION

The previous chapter presented the theoretical and conceptual framework of the study. In this chapter, I present and discuss the methodology and research design I employed in this study and include discussions on my research philosophy, method of inquiry, research design and practicalities, quality assurance and ethical considerations employed to collect and analyse the data. In addition, I discuss all the decisions and actions taken when collecting and analysing the data and explain how and why these decisions were implemented. The interpretive paradigm guided this qualitative study and employed hermeneutic phenomenology to collect and analyse data.

4.2 RESEARCH PHILOSOPHY

We can know something without understanding it. So, achieving understanding seems an additional step forward, and we would not take this step if it did not have some additional value. Furthermore, knowledge may easily be acquired through the testimony of experts. Understanding, by contrast, seems more demanding and requires that an epistemic agent herself puts together several pieces of information, grasps connections, can reason about causes, and this too suggests an added value. (Baumberger, Beisbart & Brun, (2017: 3)

Research paradigms, also known as philosophical stances, provide the logic and the criteria that organise methodology and methods (Salkind, 2010). According to Kivunja and Kuyini (2017), educational researchers use the term paradigm to describe the researcher's worldview, which is the perspective, thinking, school of thought, or set of shared beliefs that informs the meaning or interpretation of research data. A paradigm also refers to a worldview or a high-order way of thinking about or categorising the approach or logic that underpins all aspects of a research undertaking, from the intent or motivation for the research to the final design, conduct, and outcomes (Ling & Ling, 2017). Simply put, our actions in the world, including our actions as inquirers, cannot

occur without reference to those paradigms because we act based on our thoughts (Creswell et al., 2016).

Researchers can, however, be separated into groups based on their philosophical frameworks identified in terms of the assumptions they make about the nature of the reality being studied, the claims they make about what we can and cannot know, and how they utilise theories and findings. (Lodico, Spaulding & Voegtle, 2006: 6)

Therefore, ontological assumptions give rise to epistemological assumptions; these, in turn, give rise to methodological considerations; and these, in turn, give rise to instrumentation and data collection (Cohen et al., 2011). Further development and execution of a research topic into a research design by a qualitative researcher thus depend on the way the researcher believes the research question could be answered most truthfully and thus his/her assumption of how reality should be viewed (Fouché et al., 2011). The ontological assumption of this study was that the best individuals to guide how collaboration can enhance skills development are individuals with first-hand experience with collaboration in TEVET (main stakeholders). Moreover, the epistemological assumption of this study was that the best way of understanding how collaboration can enhance skills development is by interpreting the first-hand experiences of the main TEVET stakeholders with collaboration.

This study being phenomenological, entails that the study's main philosophy is phenomenology itself. However, this study combined both phenomenology and interpretivism. It must be noted that phenomenology is both a 20th century school of philosophy and methodology (Merriam & Grenier, 2019; Qutoshi, 2018; Sloan & Bowe, 2014; Smith, 2016). Although all qualitative research is phenomenological and often associated with interpretivism because there is a focus on people's experiences, a phenomenological qualitative study seeks to understand the essence or structure of that experience (Goldkuhl, 2012). By exploring collaboration between TEVET institutions and industry, my study sought to understand the essence of collaboration in enhancing skills development by interpreting the experiences of TEVET stakeholders with collaboration.

According to Qutoshi (2018), phenomenology as a philosophy provides theoretical guidelines to researchers to understand phenomena at the level of subjective reality. Subjective reality plays a crucial role in understanding the actor or the subject regarding a particular event or phenomenon relating to his or her life. Additionally, the core doctrine in phenomenology teaches that every act of consciousness we perform is intentional (Sokolowski, 2000; Starks & Brown Trinidad, 2007). My study sought to understand the intentions and importance of collaborating with TEVET stakeholders in line with this doctrine.

Table 4.1 indicates the choices of a paradigm or philosophical assumption, methodology, methods and practices a researcher can employ.

QUALITATIVE, QUANTITATIVE AND MIXED METHODS APPROACHES			
Tend to or typically...	Qualitative Approaches	Quantitative Approaches	Mixed Methods Approaches
• Use these philosophical assumptions	• Constructivist/ advocacy/ participatory knowledge claims	• Post-positivist knowledge claims	• Pragmatic knowledge claims
• Employ these strategies of inquiry	• Phenomenology, grounded theory, ethnography, case study, and narrative	• Surveys and experiments	• Sequential, concurrent, and transformative
• Employ these methods	• Open-ended questions, emerging approaches, text, or image data	• Closed-ended questions, predetermined approaches, numeric data	• Both open- and closed-ended questions, both emerging and predetermined approaches, and both quantitative and qualitative data and

			analysis
• Use these practices of research as the researcher	• Positions him- or herself • Collects participants meanings • Focuses on a single concept or phenomenon • Brings personal values into the study • Studies the context or setting of participants • Validates the accuracy of findings • Makes interpretations of the data • Creates an agenda for change or reform • Collaborates with the participants	• Tests or verifies theories or explanations • Identifies variables to study • Relates variables in questions or hypotheses • Uses standards of validity and reliability • Observes and measure information numerically • Uses unbiased approaches • Employs statistical procedures	• Collects both quantitative and qualitative data • Develops a rationale for mixing • Integrates the data at different stages of inquiry • Presents visual pictures of the procedures in the study • Employs the practices of both qualitative and quantitative research

Table 4.1: The choices of a paradigm, methodology, methods and practices a researcher can employ (adapted from Creswell & Creswell, 2018: 18).

Forms of interpretivism include conservatism, constructivism, critical theory and deconstructionism. As indicated in yellow in Table 4.1 above, this study falls under the constructivist form of interpretivism. The underlying idea of interpretivism is to work with the subjective meanings that are already there in the social world; that is, “to

acknowledge their existence, reconstruct them, understand them, avoid distorting them, and use them as building blocks in theorising" (Goldkuhl, 2012: 138). Interpretivist researchers seek methods that enable them to understand the relationship of human beings to their environment and the part those people play in creating the social fabric of which they are a part (Thanh & Thanh, 2015). From an interpretivist perspective, researchers tend to gain a deeper understanding of the phenomenon and its complexity in its unique context instead of generalising the base of understanding for the whole population (Pham, 2018).

Goldkuhl (2012: 135) postulates that "ontology and epistemology are intertwined in interpretivism because knowledge (understanding, meanings) is so essential in the ontological assumptions of the constitution of the world". Ontology and epistemology are to research what footings are to a house because they form the foundations of the whole edifice (Grix, 2018). Consequently, interpretivists adopt a relativist ontology in which a single phenomenon may have multiple interpretations rather than a truth that can be determined by measurement (Pham, 2018). Ontology is concerned with the nature of reality and what is known about reality (Alharahsheh & Pius, 2020). According to Gall, Gall and Borg (2003), epistemology is a branch of philosophy that studies the nature of knowledge and how knowledge is acquired and validated. Epistemology deals with the nature and forms of knowledge and how it can be acquired and communicated to other human beings (Rehman & Alharthi, 2016). Crotty (1998) in Al-Ababneh (2020) noted that epistemology informs the theoretical perspectives; these perspectives determine research methodology, and then methodology governs and chooses the methods of research or research design.

This study adopted the basic research elements outlined in Figure 4.1 by employing constructionism as its epistemology, interpretivism as a theoretical perspective, hermeneutic phenomenology as methodology and semi-structured interviews and focus group discussions as data collection methods. Epistemology denotes how I looked at the world and made sense of it; the theoretical perspective represents my philosophical stance; methodology explains the research design that shaped the study, and methods outline the techniques and procedures used to collect and analyse data.

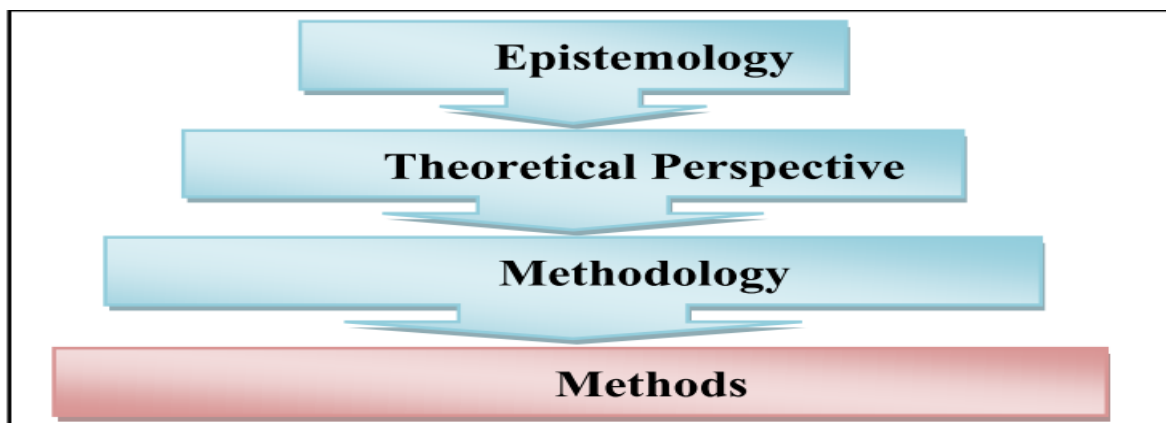


Figure 4.1 *The basic elements of the research process or research design*

Figure 4.2 is a summary of my research process adapted from Crotty (1998), Creswell and Creswell (2018) and Al-Ababneh (2020).

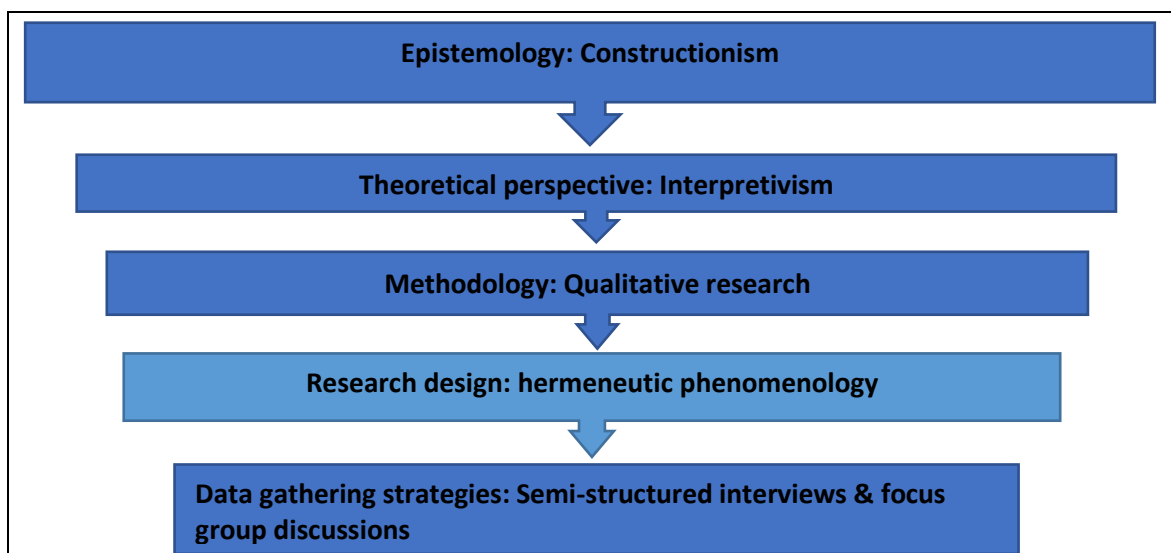


Figure 4.2: *A summary of the research process in this study*

Lastly, this study employed the abductive approach among the three main approaches to theory development, which are deductive, inductive, and abductive. Theories are standardised principles on which we can explain the relationship between two or more concepts and variables (Rahi, 2017). Though all approaches lead to new theories, an abductive approach incorporates an existing theory where appropriate to build a new theory or modify an existing theory (Saunders, Lewis & Thornhill, 2009). The study was neither aimed at testing a pre-existing hypothesis (deductive) nor producing a new theory (inductive). However, it was an attempt to add to the theories on human interactions. Specifically, the study aimed at adding to the social exchange theory

(SET) explained in the previous chapter on how human interactions can be developed and sustained.

4.3 METHODOLOGY

Qualitative research in educational leadership has yielded many insightful studies that have enriched and deepened our understanding of how influence, power, communication, collaboration, administration, abuse, equity and management work in educational organisations and contexts (Brooks & Normore, 2015). From this background, my study used a qualitative methodology to collect and analyse data on collaboration between TEVET institutions and industry. Qualitative research, also known as qualitative inquiry, is an umbrella term used to cover a wide variety of research strategies that “provide holistic, in-depth accounts and attempt to reflect the complicated, contextual, interactive, and interpretive nature of our social world” (Salkind, 2010: 2). Qualitative research often explores, describes, or explains social phenomena by unpacking people’s meanings of activities, situations, events, or artefacts (Leavy, 2017). Exploring the experiences of TEVET stakeholders with collaboration thus fits in very well with this description of qualitative research.

Qualitative researchers focus on studying social phenomena and giving voice to the feelings and perceptions of the participants under study. This approach is based on the belief that knowledge is derived from the social setting and that understanding social knowledge is a legitimate scientific process (Lodico et al., 2006). Additionally, qualitative research is quintessentially interactive (Rossman & Rallis, 2011), making it a perfect method to conduct my study on collaboration between TEVET stakeholders. This method enabled me to collect rich first-hand information from the participants regarding collaboration.

According to Yong, Levy and Lape (2015: 1), qualitative research “can involve studying others and the self and the complex relationships between, within, and among people and groups, including our entanglements”. Qualitative researchers thus seek a better understanding of complex situations by immersing themselves in the situation’s complexity and interacting with their participants (Fouché et al., 2011). Thus, qualitative methodology was the most suitable approach to understanding the complex

relationship between TEVET institutions and industry. The relationship is complex in that, though intertwined, the actors have different objectives and needs.

Furthermore, researchers who use qualitative research designs for their studies are interested in understanding, refining, exploring, and discovering new ideas and theories (Brooks & Normore, 2015). They use interviews, focus groups, document analysis, observe group behaviours, investigate culture, and look for trends and patterns in their data (Burian, Rogerson & Maffei III, 2010). In this study, semi-structured interviews and focus group discussions were utilised to collect data. Beuving and Vries (2015) argue that if an interview is a form of communication, and if communication is interaction, whatever comes out of the interaction is a joint production. This understanding makes an interview a concerted product for producing meaning. Therefore, meaning is created at the nexus of the hows and whats of experience and interpretive practice.

Despite quantitative methods being the most common method of choice by many researchers, this study employed qualitative research because it remains the most feasible way of understanding human experiences and relationships. Recent research has criticised quantitative research for following structured, rigid, pre-set designs for collecting and analysing data (Creswell & Creswell, 2017). On the other hand, qualitative research is more complex than quantitative research because planning and implementation in qualitative research are simultaneous, and the research design can change or is emergent (Cypress, 2017). Furthermore, Cypress (2017) argued that compared with quantitative research, the steps of a qualitative inquiry are repeated multiple times during the process, there is continuous reassessment and reiteration, and data collection is carried out using multiple techniques.

Additionally, the five features that distinguish qualitative research, including the specialised types, from other forms of social science research, as stipulated by Yin (2016), are that qualitative research:

- Studies the meaning of other people's lives in their real-world roles;
- Represents the views and perspectives of the people in the study;
- Explicitly attends to and accounts for real-world contextual conditions;

- Contributes insights from existing or new concepts that may help to explain social behaviour and thinking; and
- Acknowledges the potential relevance of multiple sources of evidence rather than relying on a single source alone.

In addition to the above-stipulated features, various researchers have indicated several reasons why researchers must utilise qualitative methods when exploring human experiences and relationships (Creswell & Poth, 2018; Giorgi, Goirgi & Morley, 2017; Moser & Korstjens, 2018; Neubauer, Witkop & Varpio, 2019; Qutoshi, 2018; Sokolowski, 2000; Starks & Brown Trinidad, 2007; Van Manen, 1990, 2016a). More than two decades ago, qualitative research was still a cornerstone of understanding leadership, as evidenced by the following quote from Conger:

As a research tool, qualitative methods have been greatly underutilized in the field of leadership. Instead, quantitatively-based surveys have been the method of choice ... This latter methodology fails to capture the great richness of leadership phenomena and instead leaves us with only sets of highly abstracted and generalized descriptors. On the other hand, qualitative methods are ideally suited to uncovering leadership's many dimensions. When done well, these methods allow us to probe at great levels of depth and nuance in addition to offering researchers not only the flexibility to explore the unexpected but to see the unexpected. (Conger, 1998: 118-119)

4.4 RESEARCH DESIGN

A research design is a plan or strategy that moves from the underlying philosophical assumptions to specifying the selection of participants, the data gathering methods, and the data analysis (Creswell & Creswell, 2017; Gelo, Braakmann & Benetka, 2008; Yilmaz, 2013). It is also an integrated justification statement for the more technical decisions in planning a research project (Fouché et al., 2011). This section thus outlines how the study was conducted by discussing the research design applied. The significant issues discussed are the choice and justification for the research design, data collection strategies, sampling strategies, and applied data analysis techniques.

Table 4.2 outlines the five common qualitative research designs. The highlighted column represents the research design chosen for this study.

THE QUALITATIVE TRADITIONS					
Dimensions	Narrative studies or research	Phenomenology	Grounded theory	Ethnography	Case study
Focus	Exploring the life of an individual(s)	Understanding the essence of experiences about a phenomenon	Developing a theory grounded from data in the field	Describing and interpreting the cultural or social group	Developing an in-depth understanding of a single case or multiple cases
Data collection method	Primary interviews and documents	Long interviews with up to 10 people	Interviews with 20 – 30 individuals to “saturate” categories and detail a theory	Primarily observation and interviews with additional artefacts during extended time in the field (e.g., six months to a year)	Multiple sources, including documents, archival records, interviews, observations, and physical artefacts
Data analysis strategy	Stories Epiphanies Historical content	Statements Meanings Meaning themes General description of the experience	Open coding Axial coding Selective coding Conditional matrix	Discussion Analysis Interpretation Description of the cultural behaviour of a group or an individual	Descriptions Themes Assertions

Synthesis or reporting form	Detailed picture /description of an individual's life	Description of the essence of the experience	Theory or theoretical model		In-depth description of the 'case' or 'cases'

Table 4.2: Five common qualitative research designs (Source: Creswell et al., 2016: 75)

4.4.1 Phenomenology

As indicated in Table 4.2, qualitative research designs include narrative studies, phenomenology, grounded theory, ethnography and case studies. This study used phenomenology, as highlighted in the table. Phenomenology was initiated by Edmund Husserl and further developed by Martin Heidegger. Phenomenology is an approach that seeks to study the lived human experiences and how things are perceived and appear to the consciousness (Tuffour, 2017). Originally, “phenomenology was specified in Edmund Husserl’s philosophical works and then developed into philosophy by including social factors in the works of Heidegger, Sartre, and Merleau-Ponty” (Bakanay & Mustafa, 2016: 1). Additionally, even though many classical works in phenomenology were written in the first half of the 20th century, phenomenology continues to be a source of inspiration and has been the subject of renewed interest (Zahavi, 2018).

Phenomenology is a theoretical point of view that advocates the study of direct experience taken at face value; and one which sees behaviour as determined by the phenomena of experience rather than by external, objective and physically described reality (Cohen et al., 2011). Phenomenology is also defined as the general study of the structure of experience, from thought and perception to self-consciousness, bodily awareness, and emotion (Smith, 2016). Phenomenology seeks to describe the essence of a phenomenon by interpreting what was experienced and how it was experienced (Teherani et al., 2015). The approach helps researchers investigate lived experiences rather than conceptualised ones (Creswell, 2014b). Similarly, various studies have been conducted on collaboration between training institutions and industry. However, this study was critical because it explored the collaboration experiences of students, lecturers, TEVET employers and TEVET policy-makers as

experienced in the Zambian context and not as conceptualised by different researchers.

Phenomenology as a philosophy and a method of inquiry is not limited to an approach to knowing. Instead, it is an intellectual engagement in interpretations and meaning-making used to understand the lived world of human beings at a conscious level (Qutoshi, 2018). Phenomenologists recognise many ways to interpret the same experience and never assume they know what things mean to the people they study. The knowledge that experience is varied and complex makes phenomenologists collect extensive amounts of data over time from their participants (Lodico et al., 2006). Additionally, phenomenologists focus on studying an individual's lived experiences within the world (Neubauer et al., 2019). Thus, a phenomenological study attempts to understand people's perceptions, perspectives and understanding of a particular situation as seen through the eyes of people who have experienced it first-hand (Fouché et al., 2011). This study included participants with first-hand experience of the phenomenon under study (TEVET stakeholders). It is important to note that there are different approaches to phenomenology (Neubauer et al., 2019; Tuffour, 2017). These include lifeworld research, first-person accounts, post-intentional, reflexive-relational approaches, and interpretive phenomenological analysis (IPA), classified as contemporary approaches to phenomenology. Other approaches include transcendental (descriptive) phenomenology and hermeneutic (interpretive) phenomenology, classified as classic. Despite the main framework for phenomenological studies being phenomenology itself, hermeneutic phenomenology, unlike transcendental phenomenology, allows it to be combined with other frameworks. This study explored the experiences of TEVET stakeholders with collaboration using the hermeneutic phenomenological approach. Table 4.3 outlines the significant differences between transcendental and hermeneutic phenomenology.

	Transcendental (descriptive) phenomenology	Hermeneutic (interpretive) phenomenology
Philosophical origins	Husserl	Heidegger Gadamer
Ontological assumptions	Reality is internal to the knower; what appears in their consciousness	Lived experience is an interpretive process situated in an individual's lifeworld
Epistemological assumptions	Observer must separate him/herself from the world including his/her own physical being to reach the state of the transcendental I; bias-free; understands phenomena by descriptive means	Observer is part of the world and not bias free; understands phenomenon by interpretive means
Researcher role in data collection	Bracket researcher subjectivity during data collection and analysis	Reflects on essential themes of participant experience with the phenomenon while simultaneously reflection on own experience
Researcher role in data analysis/writing	Consider phenomena from different perspectives, identify units of meaning and cluster into themes to form textual description (the what of the phenomenon). Use imaginative variation to create structural (the how) description. Combine these descriptions to form the essence of the phenomenon	Iterative cycles of capturing and writing reflections towards a robust and nuanced analysis; consider how the data (or parts) contributed to evolving understanding of the phenomena (whole)

Table 4.3: Differences between transcendental and hermeneutic phenomenology (Neubauer et al., 2019: 92)

4.4.2 Hermeneutic phenomenology

Despite being familiar with other qualitative approaches such as grounded theory, ethnography, case studies and narrative research, this study employed hermeneutical phenomenology to describe, understand and interpret collaboration experiences as lived by the selected participants in the study. Hermeneutic phenomenology, also known as interpretive phenomenology, originated from the philosophical inquiry of Martin Heidegger (Neubauer et al., 2019). Heidegger challenged the Husserlian phenomenological principles, arguing that it was predominantly descriptive, espousing the essential structures of consciousness (Heidegger, 2010). His philosophical assumption of phenomenology was that lived experience is an interpretive process situated in an individual's lifeworld (Reiners, 2012). His epistemological assumption was that the researcher is an observer who is part of the world, not bias-free and understands phenomena by interpretive means. Consequently, the participants are viewed as co-researchers because of their extensive knowledge of an experience and its interpretation (Ngulube, 2016).

Unlike transcendental phenomenology, hermeneutic phenomenology allows the researcher to use his/her biases to probe further the phenomenon under study, leading to a generation of rich findings. The design describes and interprets these findings/meanings to a certain degree of depth and richness. In this study, the personal

opinions of the researcher were used to probe participants' responses to gain further clarity on emerging issues and dispute or confirm those opinions. According to Tuffour

...hermeneutic or interpretative approach...is based on the principles that reduction is impossible and thus, rejects the idea of suspending personal opinions in favour of interpretation of experiences. Thus, research findings are suffused with philosophical, theoretical, literary, and interpretative lenses resulting in an aspect of human experience grounded on unrestricted imagination and metaphorical sensibility. (Tuffour, 2017: 1)

4.4.3 Criticisms of the phenomenological approach

What is expected in phenomenology is the (problematic) task of unveiling and disclosing a phenomenon's essence and meaning (Iared, De Oilvera & Payne, 2016). Phenomenology has been criticised for being more complex than the positivist approach because it is difficult to control the pace, progress, and endpoints. According to Sloan and Bowe

when one is new to hermeneutic phenomenology as a method of analysis in qualitative research, it is easy to make mistakes in identifying experiences... and it is difficult to know that one got it right - that one has extracted good lived experience and defined the meaning of an individual's (a research participant's) experience. Phenomenology is difficult because, as a methodology for analysis, it is difficult to get it right. The phenomenological view of experience is complex. (Sloan & Bowe, 2014: 1292)

Resulting from the above-stated challenges with conducting hermeneutic studies, it is the researcher whose expertise matters significantly in gaining a deeper level of insight into the personal knowledge of the research participant (Finlay, 2014; Qutoshi, 2018). Therefore, researchers exploring a phenomenon without prior knowledge are more likely to make mistakes in identifying meaningful experiences. Consequently, Gadamer, who contributed such terms as prejudice, consciousness, and the fusion of horizons into hermeneutical phenomenology, argued that the meaning inferred from a

specific text consists of the meaning of the text and the prejudices of the individual (Bakanay & Mustafa, 2016).

Another critique of hermeneutic phenomenology from the Gadamerian perspective argues that prejudices are both enabling and constraining. Spence (2017) argues that true prejudices facilitate further understanding, while false prejudices hinder such development. Spence (2017) further argues that while prejudices enable us to make sense of the situations in which we find ourselves, they may also constrain understanding and limit the capacity to come to new ways of being.

Finally, critiques of hermeneutic phenomenology have advanced that interpretive phenomenology permits the researcher to do what they will with the data, be it methodical or unmethodical, eradicating the need for scientific rigour (Applebaum, 2011). For instance, Heidegger's adoption of an all-is-interpretation argument has been backed by insufficiently theorised or practically described philosophical, methodological and methodical concerns (Applebaum, 2012). Additionally, there is "meaning to be found in the world (hermeneutics), but we should doubt the human motives that lie beneath it (suspicion) because all expressed meaning conceals a hidden truth" (Aagaard, 2017: 523). Aagaard (2017) further argued that these truths could be a class struggle, libidinous drives, or the will to power. The approach may invoke more profound interpretations that explain and may explain away the participants' accounts.

4.4.4 Justification for employing hermeneutic phenomenology

From an educational point of view, hermeneutical phenomenology is a procedure that leads educational agents to reflect on their personal experience and professional work to analyse the essential aspects of this experience (Doris & Fuster, 2019). This approach thus favoured the understanding of collaboration realities experienced by TEVET stakeholders participating in this study. Unlike other approaches, phenomenology does not test a hypothesis that explains why its use often produces new and additional meaning. This approach helped generate the additional meaning of collaboration between the TEVET institutions and industry, which may facilitate the development of skills demanded by the labour industry and guidelines that may inform policy on collaboration.

Furthermore, the approach does not let itself be deceptively reduced to a methodical schema or an interpretative set of procedures (Van Manen, 2016a) or culture, as stated below:

In this focus upon meaning, phenomenology differs from some other social human sciences which may focus not on meanings but on statistical relationships among variables, on the predominance of social opinions, or on the occurrence or frequency of certain behaviours, etc. And phenomenology differs from other disciplines in that it does not aim to explicate meanings specific to cultures (ethnography), to certain social groups (sociology), to historical periods (history), to mental types (psychology), or to an individual's personal life history (biography). Rather, phenomenology attempts to explicate the meanings as we live them in our everyday existence, our lifeworld. (Van Manen, 2016b: 11)

Another justification for employing phenomenology is that it helps researchers adjust to new emerging issues and ideas. As mentioned earlier, hermeneutic phenomenology does not allow bracketing. The approach enabled me to use my personal opinions and experience as an educational management and policy educator to probe new issues and ideas as they emerged during interviews. This flexibility with the method led to the generation of rich findings as it helped unveil questions that were knowingly and unknowingly omitted while preparing research instruments. The following statement from Stephenson, Giles and Bissaker clearly explains why hermeneutic phenomenology discourages bracketing:

Phenomenologists do not position themselves as seeking absolute truths and undertake research knowing there will always be more to discover, more to deeply reflect on, and more to share. The research process influences the researcher's way of being by illuminating understandings and prejudices. Prejudices that, again aligning with Heideggerian phenomenology, need to be disclosed in our writing and open to development and critique. (Stephenson, Giles & Bissaker, 2018: 265)

Neubauer et al. (2019, 95) argue that “instead of bracketing off the researcher’s subjective perspective, hermeneutic phenomenology recognises that the researcher, like the research subject, cannot be rid of his/her lifeworld”. In this study, prejudices have been incorporated into the conceptual framework. The concepts in the framework have been clearly explained in line with the perceived prejudices in understanding collaboration among TEVET stakeholders. The study’s view of how the listed concepts influence effective collaboration and enhance TEVET skills development has been explained in Chapter 3 of this study.

At the root of phenomenology is the intent to understand the phenomena under study on their terms and, therefore, provide a description of the human experience experienced by the subjects, allowing the essence to emerge (Fouché et al., 2011). The essence emerges through the iterative approach to generating meaning which involves writing, reading, talking, listening, mulling, re-reading, re-writing and keeping new insights in play (Neubauer et al., 2019). This study thus preferred to employ hermeneutic phenomenology because the approach, through iteration, builds on new knowledge and understanding and invites fresh thoughts (Stephenson et al., 2018).

Additionally, the fact that hermeneutic phenomenology is a method that allows researchers to gather data that is seen as natural rather than artificial is another reason why it was employed. Phenomenological researchers are passionate about the findings and how they can share them. Lodico et al. (2006) argue that phenomenological researchers want to understand the human experience and how different people interpret experiences differently, which is undoubtedly the right reason to conduct a phenomenological study.

In a nutshell, phenomenology focuses on people’s perceptions of the world or the perception of things in their appearance (Sloan & Bowe, 2014). The assumption of the essence, like the ethnographers’ assumption, is that culture exists, and it is essential in understanding lived experiences. The phenomenon’s essence is thus understood from a place and a point of view that can be lived and experienced by any individuals who position themselves in this place and with this view (Iared et al., 2016). To this effect, one of the prominent methodological slogans of phenomenology advanced by

Heidegger is “to the things themselves!” interpreted as “to life as we experience it in its meaningfulness” or “to what matters” (Van Manen et al., 2020: 487).

Qualitative social research requires a declarative knowledge of the research methods and methodology and a set of honed practical, applied skills (Nicholls, 2019). Phenomenology proved the best approach to explore this study on collaboration between TEVET stakeholders. The approach enabled me to explore the lived experiences of TEVET stakeholders with collaboration, thereby collecting first-hand information. As stated below, the significant contributions of phenomenology to many areas of philosophy and research disciplines also contributed to the choice of phenomenology.

Over the years, phenomenology has made major contributions to many areas of philosophy and offered ground-breaking analyses of topics such as intentionality, perception, embodiment, emotions, self-consciousness, intersubjectivity, temporality, historicity, and truth. It has delivered a targeted criticism of reductionism, objectivism, and scientism, and argued at length for a rehabilitation of the lifeworld. By presenting a detailed account of human existence, where the subject is understood as an embodied and socially and culturally embedded being-in-the-world, phenomenology has provided crucial inputs to a whole range of empirical disciplines, including psychiatry, sociology, psychology, literary studies, anthropology, and architecture. (Zahavi, 2018: 1)

4.4.5 Data collection strategies

Also known as methods, these are tools that researchers use to collect data about social reality from individuals, groups, artefacts and texts in any medium (Creswell et al., 2016). Qualitative research data can be collected through observations, interviews, documents, and audio-visual materials. Significantly, interviews are compatible with an experiential or a phenomenological research design (Adhabi & Anozie, 2017). Thus, this phenomenological study employed semi-structured interviews and focus group discussions to collect data.

Face-to-face individual and online focus group interviews with the selected participants lasted approximately 45 minutes and 90 minutes respectively. These two methods draw on a similar technique for collecting data: open-ended questioning with inductive probing of responses, but they differ in structure (Guest et al., 2017: 693). Thus, using open-ended questions during individual and group interviews allowed me to delve into the perceptions, understanding and feelings of those at the centre of the collaboration.

4.4.5.1 Semi-structured interviews

Semi-structured interviews are those in-depth interviews where the respondents have to answer pre-set open-ended questions (Jamshed, 2014 87). The reason why semi-structured interviews are a popular data collection method is that in addition to being versatile and flexible, they can also be combined with both individual and group interview methods (Kallio et al., 2016). Furthermore, Kallio et al. (2016) and (McIntosh & Morse, 2015) contend that semi-structured interviews have also been successful in enabling reciprocity between the interviewer and participant, enabling the interviewer to improvise follow-up questions based on the participant's responses.

Like all other methods, interviews have received their share of criticisms. The use of interviews has been criticised for inadvertently omitting important and salient topics (Cohen et al., 2011) in instances where the researcher fails to control the discussion professionally. Another critique is that using interviews is challenging because the researcher has to remain focused on the phenomenon being studied while reining in and reflexively interrogating their understanding (Horrigan-Kelly, Millar & Dowling, 2016). Additionally, Creswell and Creswell (2017) point out four significant limitations of employing interviews to collect data, namely: the method provides indirect information filtered through interviewees' views; provides information in a designated place rather than the natural field setting; the researcher's presence may bias responses; and that not all people are equally articulate and perceptive.

Despite the mentioned limitations of employing interviews, this study employed interviews because of the many advantages of the method that outweigh its limitations. Interview guides increase the comprehensiveness of the data and make data collection somewhat systematic for each respondent (Cohen et al., 2011). The comprehensiveness is achieved by probing the participants on unclear responses and

giving rise to further questions. The interviewer also has a more significant say in focussing the conversation on issues that he or she deems necessary concerning the research project.

Compared to more structured interviews, semi-structured interviews can make better use of the knowledge-producing potentials of dialogues by allowing much more leeway for following up on whatever angles are deemed important by the interviewee, and the interviewer has a great chance of becoming visible as a knowledge-producing participant in the process itself, rather than hiding behind a pre-set interview guide. (Denzin & Lincoln, 2018: 579)

4.4.5.2 Focus group discussions

In the case of group interviews or focus group discussions, some scholars assert that the interpersonal and interactive nature of focus groups allows them to produce information that might not be gathered from a single participant (Guest et al., 2017). Focus group discussions also enhance personal accounts by capitalising on peer-to-peer interactions and rapport, especially in a homogeneous sample with shared experiences (Love, Vetere & Davis, 2020), as was the case with the sample for this study. The focus group discussions were used as confirmatory tools to strengthen and confirm the data collected through individual semi-structured interviews.

Additionally, Stalmeijer et al. (2014) argue that the main reason for using focus groups is to gather information from different participants' points of view. They further argue that in-depth, conversational exchanges between participants and moderators offer an opportunity to hear what participants think and feel and the details about circumstances through which meaning has been constructed. Following this advantage of using focus groups and this study being exploratory, focus group discussions were thus appropriate.

During a phenomenological interview, the researcher focuses on the "lived experience" of the participant, that is, how the person experiences the phenomenon at the moment rather than recalling events from the past (Merriam & Grenier, 2019: 88). In this study, I focused on participants' experiences during individual and

collaborative activities between TEVET institutions and industry.

Finally, the study considered the impact of the COVID-19 pandemic on the provision of education. Many countries have had most educational institutions closed or under restrictive laws (Hayat et al., 2021). Participants were informed about their right and provision to participate virtually to mitigate the challenges that could have arisen when conducting face-to-face interviews, such as participants' fear of exposure to the COVID-19 virus during physical interviews. All ten individual interviews were conducted physically, and all the focus group discussions were conducted virtually.

4.4.6 Sampling strategies/techniques

Sampling strategies/techniques tell us how to select cases that can lead to valid generalisations about a population or the entire group we wish to learn about (Etikan, Mussa & Alkassim, 2016). There are no rules for sample size in qualitative inquiry as the sample size depends on what we want to know, the purpose of the inquiry, what is at stake, what will be helpful, what will have credibility, and what can be done with the available time and resources (Fouché et al., 2011). According to Sarantakos (2012), sampling in qualitative research is relatively limited and based on saturation, not representativity, and the sample size is not statistically determined - most common sampling strategies in qualitative research fall under non-probability sampling techniques. Non-probability sampling is the sampling approach in which "the chance or probability of each unit to be selected is not known or confirmed" (Rahi, 2017, 3). Thus, as Denzin and Lincoln (2011) noted, qualitative researchers seek out their sample (individuals, groups, settings) where the specific processes are most likely to occur.

Types of non-probability sampling techniques include purposive, theoretical, deviant, sequential, snowball, key informant, and volunteer sampling (Fouché et al., 2011). This study employed purposive sampling, also known as judgemental sampling, to select participants. Whilst the various purposive sampling techniques each have a different goal, they can provide researchers with the justification to make generalisations from the sample being studied, whether such generalisations are theoretical, analytic, or logical (Sharma, 2017).

Purpose sampling involves identifying and selecting individuals or groups of proficient and well-informed individuals with a phenomenon of interest (Cresswell & Plano Clark, 2011). Etikan et al. (2016) identified the following features of the purposive sampling technique:

- It is a deliberate choice of a participant due to the qualities the participant possesses.
- It does not need underlying theories or a set number of participants.
- The researcher decides what needs to be known and sets out to find people who can and are willing to provide the information through knowledge or experience.
- The researcher considers the availability and willingness to participate and the ability to communicate experiences and opinions in an articulate, expressive, and reflective manner.

The purposive sampling technique has many variants. However, this study employed maximum variation or heterogeneity sampling. A maximum variation sample is constructed by identifying critical dimensions of variations and then finding cases that vary from each other as much as possible (Suri, 2011). According to Patton (2014), maximum variation yields high-quality, detailed descriptions of each case, which helps document uniqueness and important shared patterns that cut across cases and derive their significance from having emerged out of heterogeneity.

To enable the findings to be transferred, data was collected from three different provinces, namely Lusaka, Southern, and Eastern provinces, based on the 2018 Human Development Index (HDI), representing the highest, medium and lowest HDI, respectively. The HDI has a bearing on the types of TEVET employers in the provinces, hence using this standard for sampling. Further, TEVET institutions are classified as very good, good, and fair, belonging to Grades 1, 2 and 3, respectively (Ministry of Higher Education, 2020). Institutions in Grade 3 account for more than 50% of the total institutions, followed by those in Grade 2. The grading of the institutions is based on the qualifications of directors or principals; qualifications of lecturers; student-staff ratios; maximum teaching or workshop hours per day; and the quality and number of classrooms, workshops, hostels, libraries, dining facilities,

laboratories, tools and equipment, furniture, syllabi, examinations and assessments (Ministry of Higher Education, 2020). Overall, the quality assurance system classifies the training institutions according to their capacity to provide quality education and training.

Out of 305 TEVET institutions registered with Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA, 2021), only 23 of these are public institutions (Ministry of Higher Education, 2021). Of the 23 institutions, only seven offer more than two construction skills. Five of these seven are classified as Grade 2 and two as Grade 3 by TEVETA 2020 standards. This study recruited two institutions from Grade 2 and one from Grade 3. Grade 2 institutions were selected from Lusaka and Southern provinces, while Grade 3 was selected from the Eastern province. The diverse selection of colleges was to ensure that the study's findings are representative of experiences in varied communities in similar contexts.

The sample consisted of knowledgeable individuals directly involved in collaborating with TEVET institutions and industry and willing to share their experiences. They consisted of students, lecturers, TEVET employers and TEVET policymakers. Students, lecturers, and employers were selected from different construction skills: electrical engineering, carpentry, joinery, plumbing and sheet metal, and bricklaying and plastering. Therefore, participants varied in context, types of institutions, training programmes, and stakeholder categories. This variation enabled me to gather diverse stakeholder experiences in varied contexts.

Additionally, in qualitative research, sample size determination is contextual and partially dependent upon the scientific paradigm in which the investigation occurs (Boddy, 2016). Since phenomenological studies generally require fewer than ten interviews (Moser & Korstjens, 2018: 11), the study had a limited number of interviewees. Ten participants were interviewed, and these included:

- 1 TEVET standards officer from TEVETA
- 3 TEVET institutional administrators
- 3 TEVET graduate employers (One each from electrical engineering, carpentry and joinery, plumbing and sheet metal)
- 3 TEVET students under student placements and pursue a craft certificate

(One each from electrical engineering, carpentry, joinery, plumbing and sheet metal).

Two separate focus group discussions were conducted among the lecturers and students for triangulation purposes. Each group consisted of five participants. The students' focus group participants were drawn from the same institutions under study. However, they did not consist of participants selected for individual interviews to avoid information replication. One student from carpentry and joinery, bricklaying and plastering, and power electrical, and two students from plumbing and sheet metal were selected. Participants in the lecturers' focus group included two lecturers from carpentry and joinery and one from bricklaying and plastering, plumbing and sheet metal, and power electrical. Ultimately, selecting participants from different programmes enabled me to collect data representing a diverse set of construction skills. The choice of students outside the initial sample ensured meaningful triangulation.

4.4.7 Recruitment criteria

All participants were recruited by delivering printed invitations in-person to ensure that the data collection process was completed on time and that the desired respondents were reached. Participants were reminded of and shown the permission I sought from relevant authorities to include them in the study. Participants were given the full details of the research and informed of their rights to withdraw their participation at any study point. All participants were then provided with consent forms to confirm their voluntary participation. Once voluntary participation was indicated, I collected data from the participants.

4.4.8 Inclusion/exclusion criteria for semi-structured interviews

The inclusion/exclusion criteria gave me an informed judgement of whom to recruit for the study and are presented below.

4.4.8.1 Institutional administrators

This study included three institutional administrators from each of the participating institutions. Specifically, administrators in charge of collaborative activities were

interviewed. The participants included administrators in charge of collaborative activities in these institutions. Administrators were considered knowledgeable to comment on collaborative activities between TEVET institutions and the industry and how these have influenced the quality of graduates. Participants were not excluded because of their gender or age.

4.4.8.2 Students

Participants included students pursuing a craft certificate qualification in any of the four earlier identified construction skills and were on industrial attachment. Students at this level of study were considered knowledgeable about how collaboration activities between TEVET institutions and the industry affect the quality of skills development. One student from bricklaying and plastering, one from power electrical, and one from plumbing and sheet metal were selected for the face-to-face interviews. Participants were not excluded because of their gender or age.

4.4.8.3 Employers

Included in this study were TEVET graduate or trainee employers of students from participating institutions. Three employers (one employer per province) were interviewed. The participants included those who had engaged students or graduates in construction skills for a period equal to or longer than five years. The employers included those who had engaged students or graduates in building and plastering, power electrical, plumbing and sheet metal. This period was considered sufficient for them to have been able to comment on the quality of graduates from the participating TEVET institutions. The period was further considered adequate for them to suggest how collaboration between TEVET institutions and industry can be enhanced. Participants were not excluded because of their gender or age.

4.4.8.4 Standards officer

Included in this study was a standards officer in charge of construction skills who had served in that position for more than five years. This period was considered adequate for him to have acquired enough knowledge and experience regarding collaboration between TEVET institutions and the industry. The period was also considered sufficient for the standards officer to be competent enough to comment on the

standards of training in Zambian TEVET institutions and the role of policies on skills development in the operations of TEVET institutions. The participants were not excluded because of their gender or age.

Category of participant	Number	Experience in years	Level of literacy	Recruitment criteria	Participant's role	Activity
Institutional administrators	3	5+ years of experience in an administrative position in charge of collaborations	High proficiency in English – able to read and write	Print invitation letter	Give consent by signing consent forms and responding to questions	Interview (face-to-face)
Students	3	2 nd year of study On internship or completed internship	High proficiency in English – able to read and write	Print invitation letter	Give consent by signing consent forms and responding to questions	Interview (face-to-face)
Employers	3	5+ years of engaging TEVET students in internship or permanent jobs	High proficiency in English – able to read and write	Print invitation letter	Give consent by signing consent forms and responding to questions	Interview (face-to-face)
Standards Officers	1	5+ years in charge of construction skills	High proficiency in English – able to read and write	Print invitation letter	Give consent by signing consent forms and responding to questions	Interview (face-to-face)

Table 4.4: Inclusion criteria for semi-structured interviews

4.4.9 Inclusion/exclusion criteria for focus group discussions

4.4.9.1 Lecturers

Participants included TEVET lecturers at craft certificate or diploma level. These included lecturers in construction skills who had been teaching/training for more than five years. This period was considered sufficient for lecturers to comment on how skills development policies and collaboration practices with the industry have affected the quality of graduates in TEVET institutions. Participants were not excluded because of their gender or age.

4.4.9.2 Students

Participants included students with the same qualities as the ones selected for semi-structured interviews. However, as indicated earlier, they did not include participants selected for individual interviews. Students in all four courses were selected for the focus group discussion, one from each course except for plumbing, where two were selected. Participants in the focus groups excluded those who had participated in the face-to-face interviews to avoid duplicating responses. Participants were not excluded because of their gender or age.

Category of participant	Number	Experience in years	Level of literacy	Recruitment criteria	Participant's role	Activity
Students	5	2 nd year of study On internship or completed internship	High proficiency in English – able to read and write	On internship or completed internship	Give consent by signing consent forms and responding to questions	Focus group discussion (online)

Lecturers	5	5+ years of teaching and training in any of the four selected construction courses	High proficiency in English – able to read and write	Print invitation letter	Give consent by signing consent forms and responding to questions	Focus group discussion (online)

Table 4.5: Inclusion criteria for focus group discussions

4.4.10 Data collection

The interviews lasted about 45 minutes, while the focus group discussions took approximately 90 minutes. The focus group discussion and semi-structured interview protocols comprised four main themes informed by the research objectives and literature review. The four themes were: exploring the existing collaborative activities; factors affecting successful collaboration; existing policies on skills development; and the importance of collaboration between TEVET stakeholders.

4.5 DATA ANALYSIS

Data analysis in qualitative studies involves identifying themes or generalising how a particular phenomenon is perceived or experienced (Creswell, 2014b). Furthermore, Creswell and Creswell (2017) argue that the main themes are informed through insight obtained by identifying and analysing critical themes derived from participants' responses. Despite being familiar with qualitative data analysis tools such as ATLAS.ti and NVIVO, this study employed manual coding and categorisation to generate themes from the data collected. Coding by hand with smaller data sets increased my sense of intimacy with the data and my flexibility as I made interpretations. This type of data analysis allowed the interpretive reading of the interview transcripts. Bynum and Varpio (2018) explain the process as follows:

Although Van Manen asserts that hermeneutic analysis is not a 'rule-bound process', it is also not random. It revolves around a dynamic interplay among multiple research activities that starts with identifying an interesting phenomenon that directs our attention towards lived

experience. Members of the research team then investigate experience as it is lived, rather than as it is conceptualised, and reflect on the essential themes that characterise the participant's experience with the phenomenon, simultaneously reflecting on their own experiences. Researchers capture their reflections in writing and then reflect and write again, creating continuous, iterative cycles to develop increasingly robust and nuanced analyses. Throughout the analysis, researchers must maintain a strong orientation to the phenomenon under study (i.e., avoid distractions) and attend to the interactions between the parts and the whole. This last step, also described as the hermeneutic circle, emphasises the practice of deliberately considering how the data (the parts) contribute to the evolving understanding of the phenomena (the whole) and how each enhances the meaning of the other. In practice, the above activities may be accomplished intermittently or simultaneously. (Bynum and Varpio, 2018: 253)

Data analysis for hermeneutic studies is often performed by applying the hermeneutic cycle of reading, reflective writing and interpretation in a rigorous fashion (Kafle, 2011). The end of this spiralling through a hermeneutic cycle occurs when one has reached a place of sensible meaning, free of inner contradictions, for the moment (Laverty, 2003). As demonstrated by Kafle (2011), a hermeneutic data analysis process is illustrated in Figure 4.3.

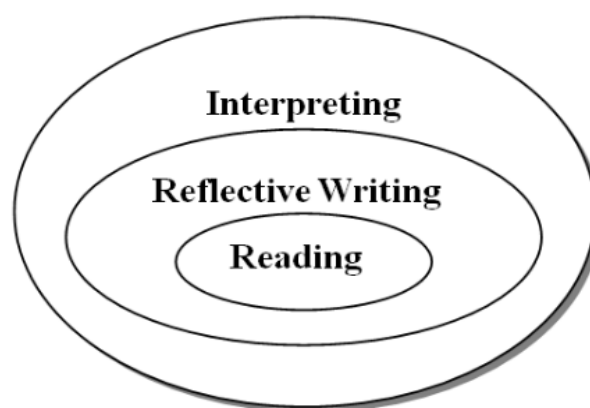


Figure 4.3: The hermeneutic cycle (Adopted from Kafle, 2011: 195)

The study integrated phenomenological data analysis steps as outlined by Bynum and Varpio (2018), Creswell and Creswell (2017), Neubauer et al. (2019), Kafle (2011) and Fouché et al., (2011). All data from individual interviews and focus group discussions were recorded. The audio recordings were kept on my Google Drive, linked to the University of the Pretoria student mail. The data were later manually transcribed using Microsoft Word. As stated by Fouché et al. (2011), after transcribing the data, the next step involved reading and re-reading the texts, playing and replaying the audio recordings in order to become thoroughly familiar with it. This step was followed by coding and categorisation using Microsoft Word – a process that led to the generation of meaningful units.

According to Creswell and Creswell (2017), phenomenological research analyses significant statements, the generation of meaningful units and the essence of description. The term essence refers to the “essential meanings of a phenomenon, which makes a thing what it is” (Kafle, 2011: 189). Since this was a hermeneutic study, the study analysed the essence of the participant’s experiences with collaboration. As indicated earlier, the interview protocols for the individual and group interviews contained four main themes: industry satisfaction with TEVET students/graduates; collaborative activities and their effect on skills development; existing policy on collaboration with training institutions; and the importance of collaboration between the training institutions and industry. These themes framed the significant statements from which meaning and interpretation of experiences were generated.

The data from the interviews were analysed first, followed by the data generated by the focus group discussions. The data from the focus group discussions contributed in terms of triangulation. Data analysis involved concurrent reflection on the critical themes that characterised the participant’s experience with collaboration. Specifically, the analysis involved iterative cycles of capturing the reflections in writing and reflecting on what was written, followed by rewriting the reflections. The cycles were repeated to generate vivid, accurate and rich analyses.

I maintained a strong orientation to the phenomenon under study throughout the analysis through reflexivity. Reflexivity is often encouraged in hermeneutic phenomenology and all interpretative methodologies (Sloan & Bowe, 2014). Sloan and

Bowe (2014) define reflexivity as where the researcher uses empathy or relevant prior experience to aid data analysis and interpretation of meanings. Most importantly, the study deliberately considered how existing collaborative practices and policies in TEVET contributed to the evolving understanding of collaboration and how these factors enhanced the meaning of the other.

4.6 TRUSTWORTHINESS AND AUTHENTICITY

Schwandt et al. (2007) elucidated the importance of trustworthiness and authenticity as follows:

Among the most knotty problems faced by investigators committed to interpretive practices in disciplines and fields such as sociocultural anthropology, jurisprudence, literary criticism, historiography, feminist studies, public administration, policy analysis, planning, educational research, and evaluation are deciding whether an interpretation is credible and truthful and whether one interpretation is better than another. (Schwandt et al., 2007: 11)

In qualitative research, just like in our everyday lives, people often interpret and judge their own and others' behaviours and experiences based on faulty or incorrect understandings. Persons, for instance, "mistake their own experiences for the experiences of others" (Denzin, 2017: 12). The success of qualitative studies depends on the extent to which such mistakes are avoided or minimised during data collection and analysis. Overall, the extent to which others can trust the findings is crucial in any research work.

Owing to the above introductory statement by Schwandt et al. (2007: 11), trustworthiness and data management is vital to the success of qualitative studies (Amankwaa, 2016; White, Oelke & Friesen, 2012). Trustworthiness or rigour of a study refers to the degree of confidence in data, interpretation, and methods used to ensure the quality of a study (Connelly, 2016). Anney (2014) suggests that in research conducted within the interpretive paradigm, the positivist criteria of internal and external validity and reliability must be replaced by the four criteria of trustworthiness and authenticity. Research findings conducted within the interpretivism paradigm are

context specific and can therefore not be generalised but can represent communities. The four criteria of trustworthiness and authenticity include credibility, dependability, confirmability and transferability (Kivunja & Kuyini, 2017). The protocols I applied to advance trustworthiness and authenticity are discussed in the following sub-sections.

Quality criterion	Possible provision made by the researcher
Credibility	Adoption of appropriate, well recognized research methods; Development of early familiarity with culture of participating establishments; Random sampling of individuals serving as informants; Triangulation via use of different methods, different types of informants and different sites; Tactics to help ensure honesty in informants; Iterative questioning in data collection dialogues; Negative case analysis; Debriefing sessions between researcher and superiors; Peer scrutiny of project; Use of "reflective commentary"; Description of background, qualifications and experience of the researcher; Member checks of data collected and interpretations/theories formed; Thick description of phenomenon under scrutiny; and Examination of previous research to frame findings;
Transferability	Provision of background data to establish context of study and detailed description of phenomenon in question to allow comparisons to be made.
Dependability	Employment of "overlapping methods"; and In-depth methodological description to allow study to be repeated.
Confirmability	Triangulation to reduce effect of investigator bias; Admission of researcher's beliefs and assumptions; Recognition of shortcomings in study's methods and their potential effects; In-depth methodological description to allow integrity of research results to be scrutinized; and Use of diagrams to demonstrate "audit trail".

Table 4.6: Provisions that may be established by a qualitative researcher wishing to address Guba's four criteria for trustworthiness (Chowdhury, 2015: 150).

4.6.1 Credibility

The naturalistic paradigm assumes that generalisations are impossible and that, at best, one can hope for "working hypotheses" that relate to a particular context (Guba, 1981: 77). Guba (1981) further argues that the issue here is not which assumptions are accurate but which ones best fit the phenomenon under study. Thus, the first criterion to determine the trustworthiness and authenticity of a qualitative study is credibility. Credibility refers to the truth of the data (Cope, 2014). Credibility answers the question: "How congruent are the findings with reality?" (Shenton, 2004: 64). This research employed prolonged engagement, data triangulation, referential adequacy, and negative case analysis to ensure that the findings were aligned with reality.

4.6.1.1 Prolonged engagement

Prolonged engagement is a technique that gets the researcher to spend adequate time learning about the culture in which the research is conducted, building trust, and reflecting on potential distortions introduced by the researcher and participants and their impact (Amin et al., 2020). Additionally, Hadi and Closs (2016) argue that prolonged engagement helps the researcher identify pertinent characters in the community concerning the issue being studied, focus on them in more detail and ensure that the research topic is explored comprehensively. I developed an early familiarity with participating employers' and institutions' developmental and educational contexts before selecting them to be part of the study. I read through various government documents which provided more details about the contexts of these institutions.

This information, coupled with the information collected during preliminary visits and actual data collected, enabled me to gather more in-depth information from the participants. For instance, before data collection, I intended to collect data from students pursuing their training at the diploma level. However, my preliminary research taught me that two of the four construction courses were only offered up to a craft certificate of the Zambia National Qualifications Framework (ZAQF). This information helped me adjust my instruments to suit the level of the available qualifications in construction programmes and probe institutional administrators and lecturers on the variation in qualification levels.

Additionally, participants take centre stage in phenomenological research approaches as they are viewed as co-researchers because of their extensive knowledge of an experience and its interpretation (Ngulube & Ngulube, 2017). In this study, prolonged engagements with participants helped close emerging gaps throughout the data collection and analysis processes. Participants were engaged even after the interviews to confirm and or add to their responses to the draft findings. More time was also spent on deep engagement with the data via reading, reflective writing, re-reading, and re-writing to ensure an in-depth analysis of the experiences. I also manually transcribed the data by myself, which improved my intimacy with the data and helped to separate my preconceptions from the participants' actual experiences.

4.6.1.2 Data triangulation

Data source triangulation involves “collecting data from different types of people, including individuals, groups, families, and communities, to gain multiple perspectives and validation of data” (Carter et al., 2014: 545). According to Creswell (2014b), triangulating different data sources allows a researcher to establish justifiable themes by converging several data sources or perspectives from participants. If triangulation is appropriately implemented, interpretations have a reasonable probability of occurring and being tied back to the study’s theoretical or conceptual framework, and the study’s conclusions are to be transferred to other studies, regardless of populations, settings, or times (Fusch, Fusch & Ness, 2018). Secondary data regarding previous research and government policies were carefully triangulated with interpretations from interviews and focus group discussions to ensure the findings were dependable. In addition, data from the interviews were analysed first and set aside. Data from focus group discussions were then analysed and synchronised with data from interviews. Finally, the synchronised data were compared with secondary data sources from previous research and government policies.

4.6.1.3 Negative case analysis

Real life is composed of different perspectives that do not always coalesce. Therefore, considering contrary information adds to the credibility of an account (Creswell & Creswell, 2018). Despite the participants agreeing that collaboration between TEVET institutions and industry is critical in enhancing the quality of skills development and reducing the gap in skills mismatch, employers felt they were not benefitting much from interactions with institutions. Instead, they argued that the government was duping them in that after being subjected to paying a skills development levy to the government (meant to improve the quality of TEVET training), they are still employing half-baked graduates from TEVET institutions. In most cases, employers retrain the graduates from TEVET institutions for them to be able to fit into their systems. They argued that they were paying twice for the same labour.

Two colleges reported no students enrolled in bricklaying and plastering for two consecutive years. As such, students’ views in this field were not adequately gathered.

4.6.2 Dependability

The second criterion used to justify the trustworthiness and authenticity of a qualitative research study is dependability. Dependability in research refers to data stability over time and under different conditions (Polit & Beck, 2020). Researchers can ensure that the research process is logical, traceable, and documented (Nowell et al., 2017). Simply put, dependability includes the consistency of the analysis process with the accepted standards for a particular design. Reflexive journaling and peer debriefers were utilised to ensure the data analysis was consistent with a hermeneutic phenomenological study design.

4.6.2.1 Reflexive journaling

Dependability was achieved by maintaining a reflexive journal throughout the research process. Engaging in reflexive journaling can facilitate understanding of unexpected research encounters and improve awareness of researcher positionality to render a more complete understanding of interview data, contextualise findings, and support the development of independent researchers (Meyer & Willis, 2019). I ensured that I documented all positive and negative occasions that would be beneficial and pertinent to the study. All reflections from the said occasions were documented as and when they emerged. All documentation used to collect the data was properly filed and stored. These included signed consent letters, interview guides, actual interview notes taken, recordings of interviews, contact details for the participants and my daily field journal. Proper filing of these documents helped me conduct an audit trail to examine the entire data collection and analysis process and make changes where information was misinterpreted. Proper filing of participants' details was also vital during member checking. Overall, recalling field experiences helped me understand and contextualise the findings and confirm if surprising findings in one college were also present in the other.

4.6.2.2 Peer debriefing

Peer debriefing is a method in which the “researcher discusses the research methodology, data analysis and interpretations continuously throughout the research process with his/her peer who is not directly involved in the research project” (Hadi &

Closs, 2016: 643). Two different persons conducted two peer reviews of the analysis to ensure that the research findings result from the experiences and ideas of the participants and mine. The reviews were conducted by people who are very conversant with the context of TEVET in Zambia and possess the required expertise to analyse the interpretation made critically. Suggestions from the reviewers were then scrutinised and incorporated.

4.6.3 Confirmability

Confirmability refers to objectivity, the potential for congruence between two or more independent people about the data's accuracy, relevance, or meaning (Elo et al., 2014). Confirmability is concerned with establishing that "the researcher's interpretations and findings are derived from the data, requiring the researcher to demonstrate how conclusions and interpretations have been reached" (Nowell et al., 2017: 3). In this study, confirmability was mainly achieved through justifications of all decisions that culminated in the final interpretations of the findings. Justifications are provided for the selection and need for further research in the field under study, choice of the theoretical and conceptual framework, research paradigm, methodology and research design. Furthermore, since bracketing is not encouraged in hermeneutic phenomenology (Neubauer et al., 2019), the following actions were taken to ensure that the interpretations represented the actual views of the participants and not my views.

4.6.3.1 Researcher lens

Since a hermeneutical phenomenological approach requires that the researcher be part and parcel of the research, bracketing out the researcher's experience and knowledge of the phenomena is not allowed. In hermeneutic phenomenology, all understanding is based on prior understanding, also called the fore-structures of understanding by Heidegger (fore-having, fore-sight, and fore-conception) (Farrell, 2020). According to Farrell (2020), what we already know about a phenomenon forms the basis for what we can understand. Hence, we need to examine our presuppositions and prejudices rather than bracketing them. This is explained by Davidsen (2013) as follows:

We are not aware of the fore-structures beforehand, and we cannot uncover the fore-structures in other ways than through analysis of the things or phenomena. For example, when encountering a text, we do not know which of our fore-structures are relevant. This is revealed through engagement with the text and reflection upon what could possibly have influenced the interpretation. (Davidsen, 2013: 323)

Detailed and thick descriptions are used to obtain external validity (Hadi & Closs, 2016). Despite using my lens to interpret the data, the actual meanings of the participants' experiences are reflected in this study. Rich, vivid, and accurate writing was employed to prove an in-depth interpretation of the participants' collaboration experiences. According to Van Manen (2016a), depth guarantees reality.

4.6.3.2 Member checking

Member checking helps the researcher to “ensure accurate portrayal of participant voices by allowing participants the opportunity to confirm or deny the accuracy and interpretations of data, thus adding credibility to the qualitative study” (Candela, 2019: 620). I emailed a complete transcription of the audio recordings and analysis of the findings to all the participants to verify the interpretations' accuracy and provide additional information if they wished to do so. The emails were followed by a phone call to allow the participants to express their views. This approach enabled me to make follow-up questions to fully understand the participants' comments and get feedback on time. Member checking was beneficial as participants could add to the analysis what they had left out during the interviews and correct wrong interpretations.

4.6.4 Transferability

Transferability refers to the potential for extrapolation (Denzin & Lincoln, 2018). Transferability does not advocate generalisation but suggests that findings gained in a particular context can offer valuable lessons to similar settings (Daniel, 2018). According to Shenton (2004), transferability occurs when a researcher provides enough details about the context of the study to enable others to compare and decide whether the environment in which detailed research was conducted is similar to other settings. Simply put, transferability requires that the researcher acknowledges multiple

realities. To ensure that the findings are representative of the experiences in varied communities in similar contexts, careful decisions regarding the economic statuses of the provinces from which the institutions were selected were made. Additionally, the study considered varied construction skills.

4.6.4.1 Context of institutions

The study included varied contexts in terms of the location of institutions. Institutions were selected from three provinces based on the 2018 HDI representing high, medium and low indexes. The poverty distribution for 2018 by UNICEF also categorised the selected provinces as rich (Lusaka), average (Southern) and very poor (Eastern) (UNICEF, 2021). Initially, it was intended that the research be conducted from institutions belonging to Grades 1, 2, and 3, but there were no institutions in Grade 1 offering more than two construction courses as was the sampling criteria for institutions. As a result, two institutions in Grade 2 were selected and one institution belonging to Grade 1. Despite belonging to the same grade, the two institutions differed mainly because of their HDI and poverty index, as stated above. As a result, findings represented varied contexts. Additionally, findings were drawn from varied training programmes, including electrical engineering, carpentry and joinery, plumbing and sheet metal, and bricklaying and plastering. As such, findings are transferable to most institutions offering construction skills in varied contexts

4.6.4.2 Purposive sampling

According to Bitsch (2005), a researcher facilitates the transferability judgment by a potential user through the thick description and purposeful sampling. Purposive sampling helps a researcher to focus on critical informants who are exceptionally knowledgeable about the issues under investigation (Anney, 2014). Informed decisions about sampling are critical to improving the quality of research synthesis (Suri, 2011). In this study, key informants interviewed included major stakeholders whose work experience ranged between seven to thirty years. This period is considered sufficient for them to comment on the quality of graduates from the participating TEVET institutions. The period is further considered adequate for them to suggest how collaboration between TEVET institutions and industry can be enhanced. For students, only those who were on an internship or had completed their

internship were included. These students were considered knowledgeable about how collaboration activities between TEVET institutions and industry affect the quality of skills development as they had been exposed to both the institution and work-based learning environments.

4.7 ETHICAL CONSIDERATIONS

Research should be based on mutual trust, acceptance, cooperation, promises and well-accepted conventions and expectations between all parties involved in the research project (Fouché et al., 2011). The three basic ethical principles for protecting human subjects are respect for persons, beneficence and justice (Ketefian, 2015). Simply put, ethics are intended to challenge scholars' integrity and the well-being of the populations under study. I discuss the steps to address the ethical issues of concern in the following paragraphs.

Before conducting fieldwork, I applied for ethical clearance from the Ethics Committee of the Faculty of Education at the University of Pretoria. The application was approved and given the reference number EDU 138/21. Before proceeding to the training institutions, I also obtained formal permission from the Provincial Education Officers in Lusaka, Southern and Eastern provinces of Zambia. Further permission was obtained from the three college principals of all the sampled institutions. Lastly, I obtained informed consent from each participant interviewed and assured them of their anonymity and confidentiality. The approach protected the participants' privacy rights and avoided inflicting them with any harm that could have arisen from revealing their identities. I protected the participants' identities by providing pseudonyms for each participant and college.

According to Ryen (2016), participants have the right to be informed of the nature of the study and their right to withdraw from the study. Before conducting the interviews, I provided clear information about the purpose of the study, study objectives, and the use of the data to be collected to the interviewees. All participants were requested to use pseudonyms (false names) to log into the online sessions and ensure confidentiality and anonymity during focus group discussions. Furthermore, all participants were asked not to discuss what was said during the sessions with other persons not part of the groups. Despite this being the case, participants were informed

that absolute anonymity and confidentiality could not be guaranteed as I had no control of the participants' discussions after the sessions ended.

Additionally, participants were informed of their right to withdraw from the study anytime they felt like doing so and that their withdrawal would not attract any penalties. Participants were further informed that the data to be collected was to be strictly used for research and academic purposes. Participants were also informed that the data sets could be used for secondary research purposes in future and that the same confidentiality and anonymity applied during interviews shall be maintained. Before turning on the recorder, permission to record the interviews was also sought from all the participants. I conducted all the interviews alone as hermeneutic phenomenology requires that the researcher becomes part and parcel of the study, takes the role of a participant, and uses his/her prior knowledge about the phenomenon to probe participants' responses.

All COVID-19 protocols such as social distancing, sanitising or washing hands, and proper masking was followed to ensure my participants' safety during the interviews. I ensured that I carried hand sanitisers and faced masks with me as I conducted the research to avoid compromising in a case where I found the interviewee did not have these two essential items. Furthermore, focus group discussions were conducted online. This way, the safety of the participants was protected.

Even though the research approach required that I be subjective, I also endeavoured to be as objective as possible. Objectivity helped me refrain from subjectivity that was likely to adversely affect the approach and methodology of research (Khan, 2016). Finally, I ensured that all research activities protected the participants and preserved my integrity as a researcher. Informed consent, non-deception, the prevention of psychological or physical harm, privacy, confidentiality, and a commitment to collecting and presenting accurate findings, as stated by Panter and Sterba (2011), were all strictly observed.

4.8 SUMMARY

In summary, this chapter has presented and discussed the methodology and research design employed in this study. The chapter includes discussions on my epistemology

(constructivism); theoretical perspective (interpretive); methodology (qualitative research); research design (hermeneutic phenomenology); and data gathering techniques (semi-structured interviews and focus group discussions). Also discussed are protocols to ensure trustworthiness and authenticity and that research ethics were followed to the letter. Also included in the discussions are justifications for the decisions and actions taken when collecting and analysing the data. In the next chapter, I present the findings of the study.

CHAPTER 5

PRESENTATION OF RESEARCH FINDINGS

5.1 INTRODUCTION

This chapter presents the findings of this study. The study had four main objectives. Firstly, the study sought to describe the existing collaborative activities between TEVET institutions and industry and secondly, to understand the influence of these activities on the quality of skills acquired by the students. Thirdly, the study sought to analyse the influence of existing policies on skills development on collaboration between TEVET institutions and industry. Lastly, the study explored the importance of successful cooperation between TEVET institutions and the industry in enhancing skills development.

Following the data collection and analysis method outlined in Chapter 4, this chapter presents the consolidated data collected through interviews and focus group discussions. The chapter ends with a general narrative and summary of the findings.

5.2 PROFILES OF THE PARTICIPANTS

Table 5.1 represents the profiles of the interview participants, and Table 5.2 represents the profiles of the focus group participants. Regarding gender, males and females are represented by M and F, respectively. The G in the institution is for institutional grading per TEVETA classification of institutions, while high, medium and low refer to the Human Development Index. Finally, the NA is for aspects not applicable to the participants.

5.2.1 Interviews

A total of ten interviews were conducted. A capital letter P denoting the participant and a number was allocated to all participants to maintain their anonymity. For instance, P1 refers to participant number one. M and F represent the male and female gender, respectively. NA denotes that the classification does not apply to the participant.

Participant	Category	Age	Gender	Institution	Year of Study	Years of Experience	Highest level of education	Area of specialisation
P1	Institutional administrator	62	M	Grade 2 (High)	NA	4	Diploma: Mechanical engineering	Head of dept: Construction
P2	Institutional administrator	50	M	Grade 2 (Medium)	NA	7	Master's degree in business administration	Training and consultancy manager
P3	Institutional administrator	58	M	Grade 3 (Low)	NA	22	Diploma in Education	Acting principal
P4	Graduate employer	35	M	NA (Low)	NA	7	Diploma: Water engineering	Water supply and maintenance
P5	Graduate employer	40	M	NA (Medium)	NA	13	Craft: power electrical	General public service provider (municipal council)
P6	Graduate employer	38	F	NA (High)	NA	9	Master's degree: Human resource manager	Electricity supply and maintenance
P7	Standards officer	54	M	Regulatory body (High)	NA	12	M.Sc. in Performance Management and Workplace Learning	
P8	Student	26	F	Grade 3 (low)	2	NA	NA	Plumbing & Sheet metal
P9	Student	27	M	Grade 2 (High)	2	NA	NA	Bricklaying and Plastering
P10	Student	18	F	Grade 2 (Medium)	2	NA	NA	Power Electrical

Table 5.1 : Profiles of interview participants

5.2.2 Focus groups

Two focus group discussions were conducted. One group comprised five lecturers, while the other comprised five students. A capital letter P denoting participant, followed by the letter L for lecturers and a letter was allocated to all participants to maintain anonymity. For instance, PLA referred to participant number one in the group for lecturers. The same was applied to the focus group discussion for students, where the letter S in the acronym referred to a student.

Category and number of participants	Participants	Age	Gender	Institution	Year of Study	Years of Experience	AREA OF SPECIALISATION
Lecturers (5)	PLA	45	M	G2 – high	NA	12	Power electrical
	PLB	33	M	G2 – medium	NA	6	Carpentry and joinery
	PLC	50	M	G3 - low	NA	12	Bricklaying and plastering
	PLD	41	M	G2 - high	NA	8	Power electrical
	PLE	38	M	G2 - medium	NA	10	Plumbing and sheet metal
Students (5)	PSF	18	F	G2 – low	2	NA	Power electrical
	PSG	22	M	G2 - medium	2	NA	Plumbing and sheet metal
	PSH	20	F	G2 – high	2	NA	Plumbing and sheet metal
	PSI	27	M	G2 – medium	2	NA	Carpentry and joinery
	PSJ	29	M	G3 - Low	2	NA	Bricklaying and plastering

Table 5.2 Profiles of focus group participants

5.3 EMERGING THEMES AND THE CONTRIBUTIONS MADE BY PARTICIPANTS

Table 5.3 below provides a breakdown of themes and sub-themes that emerged from the data and which participants were engaged to share their experiences with the identified themes. Institutional administrators, graduate employers and the standards officer were engaged in all the sub-themes except for students whose experiences in some sub-themes were considered inadequate to give substantial meaning to this study.

	PARTICIPANTS ENGAGED				
THEME	Institutional administrators	Graduate employers	Standards officer	Students	Lecturers
Collaborative activities and their effect on skills development					
a. Student placements	✓	✓	✓	✓	✓
b. Program funding	✓	✓	✓		✓
c. Scholarships	✓	✓	✓	✓	✓
d. Improved academic and pedagogic competence	✓	✓	✓		✓
e. Improved work experience	✓	✓	✓		✓
f. CPDs	✓	✓	✓		✓
g. Sponsor employees or further training	✓	✓	✓		✓
h. Curriculum development and review	✓	✓	✓		✓
i. Supply of teaching and learning materials	✓	✓	✓		✓

j. Employment opportunities	✓	✓	✓		✓
k. Facility or infrastructure improvement	✓	✓	✓		✓
l. Assessment of training	✓	✓	✓	✓	✓
Industry satisfaction with TEVET students/graduates	✓	✓	✓	✓	✓
Existing policy on collaboration with training institutions					
a. Existing policy	✓	✓	✓		✓
b. Existing platforms for collaboration	✓	✓	✓	✓	✓
c. Incentives	✓	✓	✓	✓	✓
The importance of collaboration between the training institutions and the industry	✓	✓	✓	✓	✓

Table 5.3: Emerging themes and sub-themes and the contributions made by participants

5.4 THEME 1: COLLABORATIVE ACTIVITIES BETWEEN TEVET INSTITUTIONS AND INDUSTRY

The first objective of this study was to identify and describe the existing collaborative activities between TEVET institutions and industry. The data revealed that most collaborative activities were conducted under coordinated arrangements. Participating institutions were engaged in various memoranda of understanding (MOUs) with companies from the private and public sectors. However, the levels of engagement were different owing to the different geographical locations, economic activities and perceived benefits from the collaboration. The institution in the province where the Human Development Index (HDI) was high, had more economic activities and was located near a diverse set of industries and had more MOUs compared to the

institutions in provinces where the HDI was medium and low. A total number of twelve (12) collaborative activities were pre-identified and explored. These were:

- i. Student placements
- ii. Programme funding
- iii. Scholarships
- iv. Improved academic and pedagogic competence
- v. Improved work experience
- vi. Continuing professional development programmes (CPDs)
- vii. Sponsor employees for further training
- viii. Curriculum development and review
- ix. Supply of teaching and learning materials
- x. Employment opportunities
- xi. Facility and infrastructure improvement
- xii. Assessment of training

Table 5.4 below shows the codes that were identified and the sub-themes that were developed from the collaborative activities as indicated above. Each of the sub-themes are discussed in the following sub-headings.

Theme	Codes
COLLABORATIVE ACTIVITY	
a. Student placements	✓ Institutions must organise student placements. ✓ Insufficient learning from institutions. ✓ Internship period short. ✓ No incentives (lunch and transport). ✓ Sensitise employers who take on interns regarding supervision, assessments and report writing.
b. Program funding	✓ Do not fund any programmes. ✓ Some programs are funded. ✓ Pursue companies to sponsor programmes.
c. Scholarships	✓ Most companies no longer offer scholarships. ✓ Scholarships offered by TEVETA and other programme funders.

	✓ We lobby for scholarships, and some organisations approach us to provide them with students requiring assistance.
d. Improved academic and pedagogic competence	✓ Unsuccessful implementation of higher qualifications. ✓ Need to upskill lecturers to teach higher programmes.
e. Improved work experience	✓ Need to have adequate training materials and workspaces. ✓ Need to ensure implementation of policies.
f. Continuing Professional Development Programmes (CPDs)	✓ No CPDs. ✓ CPDs were suitable for exposure to current technologies and reducing skills mismatches. ✓ Companies were willing to bring lecturers on board. ✓ No workforce to train diploma holders. ✓ Need to upskill lecturers locally. ✓ Colleges need to submit gaps in which lecturers require upskilling. ✓ Colleges to suggest industries where they want to be attached to. ✓ Need to consciously review lecturers' skills in line with the curriculum review. ✓ Need for continuous training to solve gaps created by retention problems.
g. Sponsor employees or further training	✓ Stopped sponsoring employees as they failed to retain them afterwards. ✓ High failure rate – high cost by employers. ✓ No longer sponsors employees but gives full-time paid study leave.
h. Curriculum development and review (CDR)	✓ Never participated in CDR. ✓ There is a mismatch in training equipment and not curriculum. ✓ TEVETA must improve the calibre of the CDR panel. ✓ Lack of funds to procure equipment stipulated in the curriculum. ✓ Using outdated curricula in some programmes. ✓ Lecturers in the rural areas are side-lined in CDR. ✓ Occasionally participates in curriculum development and review.
i. Supply of teaching and learning materials	✓ Do not supply teaching and learning materials. ✓ Occasionally receive teaching and learning materials from industry through lobbying (mainly used or obsolete equipment). ✓ Recently received high-tech equipment from Skills Development Fund.

j. Employment opportunities	✓ Offer employment opportunities ✓ Difficult to secure employment opportunities on behalf of students.
k. Facility or infrastructure improvement	✓ Provide tender and technical advice for infrastructure improvement. ✓ No infrastructure improvement (mandate of the ministry). ✓ Need for rehabilitation (some institutions were not initially built as training institutions).
l. Assessment of training	✓ Industry helps to assess students. ✓ Some companies give sufficient feedback. ✓ Less feedback on student performance - need to improve. ✓ Major industry concerns on the quality of students include: ○ Students require additional practical training; ○ Need to teach professional conduct and ethics; ○ Dress code, time management and customer service; ○ Need improvement in report writing.

Table 5.4: Codes and sub-themes pertaining to Theme 1

5.4.1 Student placements

The data revealed that student placements, commonly known as industrial attachments, were mandatory for all students to graduate and mainly organised by students themselves. All participants in the study noted that, in most cases, students search for placements independently. The institution only provides them with introductory letters to the companies where they wish to be. Most participants expressed concern with this method of placements for students and suggested that institutions must be tasked with securing student placements with the industries they think would benefit their students. Among the reasons advanced for this suggestion was that students face several difficulties securing places for industrial attachment under the current arrangement. These difficulties include denial of places by companies, choosing industries beneficial to students' training, and logistical challenges. As a result, participants noted that through collaboration with industries, institutions were in a better position to identify and select companies which would suitably respond to the different skills gaps for their students within the period assigned for attachments and cushion the student expenses on logistics during the attachment.

5.4.1.1 Securing places for industrial attachment

The study revealed that most students have challenges securing places for industrial attachments. While graduate employers bemoaned the lack of space to take up the large number of students applying to their companies, students felt that they were being denied places because employers had a misunderstanding of what industrial attachment entails. Students felt that employers treated students requesting attachments as though they were seeking jobs. Narrating her experience when securing a place for her internship, a power electrical student participant lamented:

As for me, I would say I had many challenges with the internship. However, the main challenge I had was securing this internship. I sent many applications, and companies do not want students on the attachment. It is as if when you are asking for an internship, you are asking for a job. The process is too long and frustrating. (P10)

Lecturers also shared their observations regarding industrial attachments and confirmed that students struggle to find places for their industrial attachments. They cited the unwillingness of companies to take up students as a major cause of the struggle.

We do not have so many companies willing to take up students as interns or hire them. (PLA)

Additionally, institutional administrators showed concern about some companies' denial to take up students on attachment as attachments are a core component of successful technical and vocational training. Administrators noted that most companies view interns as an additional cost to their labour budget even though they do not get paid during the internship. As such, they suggested that TEVETA must collaborate with the industry and ensure that companies take on TEVET students as interns.

We want TEVETA to come on board to assist institutions on this matter. They are the ones talking to the industry. At the same time, they are the ones that are regulating training, so they must come on

board and start compelling these industries to take on these learners.

(P1)

Graduate employers, students and lecturers, however, suggested that institutions must be the ones to secure industrial attachments for their students. Graduate employers interviewed also believed that institutions must be the ones to organise industrial attachments on behalf of students. Justifying the denial of some students, companies cited inadequate space and lack of knowledge of the skillset that students require from the companies. According to the employers, allowing institutions to secure attachments on students' behalf will help reduce the gap between what the students are taught in institutions and what they find in the industry. One of the employers noted:

Training institutions must formally write to industries to inquire if they can take on their students, depending on the type of training and the nature of the business. This action will reduce the mismatch between what students learn at the institution and what they find in the industry.

(P4)

Concurring with other students in the focus group discussion, a student justified his view that institutions must be the ones to secure attachments on behalf of students.

I agree with the previous speaker; the college has to tell us where we should go. I feel that institutions know better which companies can give us the attachment, which is beneficial, so they must be able to arrange attachment places on our behalf. (PSF)

Echoing similar sentiments, a (PLE), in plumbing and sheet metal noted that institutions need to go an extra mile in securing places for industrial attachments. According to him, even though some industries accept students under the current arrangement, institutions must be responsible for looking for these spaces. For instance, sharing her experiences on the possibility of institutions securing places for industrial attachment on behalf of students, a graduate employer noted:

Just yesterday, an institution from Copperbelt called asking me for attachment spaces for five (5) students, and we are already processing their letters as I speak to you. (P6)

5.4.1.2 Choice of a company for attachment

While some students noted that they were happy with their choices of companies to where they were attached, some expressed disappointment with their choices. Happy students indicated that they had learnt a lot of practical aspects related to their training which were not covered during their training at the institutions. Therefore, they were happy with the practical exposure, which gave them the confidence to take up different tasks easily. However, those dissatisfied indicated that their experiences at the companies where they were attached were not beneficial to their training. Students noted a wide mismatch between what they were exposed to during industrial attachment and what they were taught in class. They also bemoaned the levels of engagement in diverse activities at the companies citing that they were meant to do similar tasks throughout the attachment period. As a result, students suggested that institutions must help students to acquire places for attachments if students have to make the best of industrial experience. Sharing her industrial experience, a plumbing and sheet metal student noted:

Institutions ensure that the company to which we will be attached has the necessary equipment and environment for us to benefit more from the internship. The institution must tell us where we are supposed to go and intern. I have not learnt much from the company to which I am attached. Nevertheless, I am about to complete my attachment. I can give you just one example, we learnt motors at the training institution, but I was not exposed to motors during my internship. (PSH)

Echoing similar experience than the participating students on industrial attachment, a graduate employer in the province with medium HDI explained:

I feel the issue of allowing students to look for internship places on their own is unfair as they might not know which institution can offer them the best practical experience. We have seen some students

leave the internship before completing the programme after discovering they have wasted their time. For instance, I learnt very little during my internship because the institution had very little to offer me. Most students have challenges with getting accepted by industries. However, if institutions come in, they can find internship places that will add value to students' training.(P5)

Another employer (P6) in the province with high HDI suggested that apart from institutions organising these placements, industries can also request interns in various fields when they need additional labour. According to her, her company was already practicing this suggestion, which was working in their favour.

5.4.1.3 Logistical arrangements/incentives

Graduate employers and students highlighted the need for students to be given help by institutions regarding logistics or incentives. Students' experiences when securing places for attachments and during the attachment revealed that most students have challenges financing their attachments regarding transport, accommodation, start-up tools and even food. Sharing her experience, a student in the low HDI province lamented the challenges of securing and finishing an industrial experience for students in rural areas:

At this institution, the internship applications are submitted to district offices and processed in Chipata, the provincial headquarters. The long and tedious process is much more expensive because of the long distances between the institution, the district offices, and the processing point. Additionally, there are no incentives in terms of transport and lunch allowance. So, concentrating on attachments is challenging, especially since most attachment places are far from this place. For instance, I could not commute daily from here to my attachment place because of the distance, like 70km from the boma to where the attachment places are located. So, one must find accommodation, transport, and food. (P8)

5.4.1.4 Duration of industrial attachments

Students in all programmes under study except those in bricklaying and plastering indicated that the internship length was insufficient. The students explained that they are exposed to more practical work during internships, and thus, they need to increase the length of these internships. One of the students who was satisfied with the duration of the industrial attachment noted that:

I benefitted from the internship because I learnt many things that I had not learnt during classes. (P8)

The students were not satisfied with the duration of the industrial attachment and suggested that the period must be increased had this to say:

We need to do more practical than theoretical. That way, we shall graduate as highly skilled graduates. (PSI)

We only go for industrial attachment when the institution is on holiday. The holiday arrangement is not good because it is disruptive. It is usually at that moment that you are trying to perfect a particular skill that the institution re-opens, and you must leave for school. Therefore, I suggest we go for a complete three-month attachment. That way, we shall learn skills without being interrupted by the holidays. (P10)

5.4.1.5 Employer's knowledge of industrial attachments

The data further revealed a need to sensitise employers who take on interns regarding supervision, assessments and report writing. The need emanated from the different experiences of students and graduate employers regarding supervision, assessments and report writing. Sharing their experiences during an individual interview (P9) and focus group discussion (PSJ), the students emphasised that institutions need to fully sensitise the employers on what they expect from them in terms of supervising students and assessing their students' performance and completing the necessary documents.

I took official templates for the employer to fill in after assessing my performance, yet he just scribbled some simple and incomplete feedback on plain paper for me to submit to the institution. Meanwhile, we use these same documents to find employment as they must indicate our strengths and weaknesses. So, I felt they must be engaged and taught how to supervise and assess us. Most importantly, how to write accurate reports. (P9)

My suggestion would be that our lecturers compile a list of aspects they expect us to be exposed to, which we must give our employers upon being accepted to intern with them. And then, in addition to what they offer, they can help us with some of the aspects listed on that list. (PSJ)

5.4.2 Programme funding

When asked to share their experiences with programme funding by the industry, all graduate employers interviewed noted that they no longer fund any programmes directly. However, they noted that they were part of the programme funders through the skills development levy, which they pay to the government. A graduate employer shared her experience and explained that her company does not fund any TEVET programmes.

I do not remember any time we supported programmes at TEVET institutions from the time I assumed this position over nine years ago. (P6)

Contradictory, institutional administrators acknowledged receiving funds to sponsor some programmes from employers, including public and private companies, non-governmental organisations and faith-based organisations. Sharing their experiences, administrators noted that:

We have some programmes being funded. We have had individual companies who bring in three or four staff, and they pay for them. Then we have had organisations such as Water for Water from Switzerland. This organisation sponsors two programmes: plumbing, pipe fitting and

water operations. These programmes are fully sponsored. Recently we have had Family Legacy, which sponsors mechanical engineering and electrical technology learners. These programmes are also fully paid for (tuition and exam fees). (P1)

Some companies do sponsor some of our programmes. Because of COVID-19, some companies have had difficulties sponsoring our institution. The companies funding our programmes are mainly tourism and hospitality. However, in these other programmes, it has also been difficult. Most companies surrounding us are in the hotel industry. (P2)

We have CARE International, which sponsors students doing short courses of about three months. We also have the Women's Lobby Group and CHAZ, among others. These bring actual finances to the institution. (P3)

5.4.3 Scholarships

Regarding scholarships, the data revealed that all the participating employers had scholarships embedded in their activities but were no longer offering them due to financial challenges.

We used to give scholarships to students. We last gave out scholarships about five to six years ago. Lately, because of economic challenges, it has not been possible for our company to sponsor students at TEVET institutions. (P6)

Nevertheless, institutional administrators and the standards officer revealed that TEVET institutions enjoy many scholarships offered by TEVETA and other organisations such as NGOs and faith-based organisations that sponsor students from vulnerable backgrounds. When asked how they accessed these scholarships, institutional administrators noted that they primarily lobbied for them. They also noted that organisations offering scholarships approached them to provide them with students who needed assistance.

It has been difficult for the institution to secure scholarships from the industry. We have students sponsored by SOS and other organisations that sponsor students from vulnerable backgrounds. (P2)

TEVETA, in partnership with industry through the skills development fund (SDF), advertises from TEVETA training windows one and three, requesting institutions to send their proposals on programmes requiring funding. When TEVETA advertised this year, we sent our proposals, and we currently have eight (8) programmes being funded. (P1)

Mainly, TEVETA gives us bursaries plus the help we get from non-governmental organisations who fund specific programmes. (P3)

5.4.4 Improved academic and pedagogic competence

The data revealed that TEVET institutions still have lowly qualified lecturers owing to the unsuccessful implementation of offering higher TEVET qualifications in Zambia. It was revealed that there is an urgent need to upskill lecturers to teach higher qualifications. This challenge is more prominent in construction courses such as carpentry, bricklaying and plastering, where almost no institutions offer higher level courses. Institutional administrators were asked if their lecturers were qualified enough to teach effectively, and one of them had this to say:

In the construction sector, very few lecturers are qualified. In most of these programmes, for instance, carpentry, the furthest you can go is a craft. So, most of the lecturers or tutors are craft certificate holders. As such, they are not fully competent in delivering specific components. So, we have a situation where we need more of them to be trained, and TEVETA should provide that directive. (P2)

A follow-up discussion with the standards officer at TEVETA on improving the academic and pedagogic competence of lecturers in TEVET institutions confirmed that institutions have challenges with improving these competencies. The officer indicated that institutions are challenged with recruiting and maintaining qualified staff because of the not-so-attractive emoluments for lecturers compared to the private sector.

We suffer from retention issues with lecturers in rural areas whose salaries are lower than even primary school teachers, so we lose these to more prominent colleges in urban or peri-urban areas. Also, lecturers along the rail line are taken by the private sector (industries), offering them higher salaries. Training must thus be continuous to cushion such issues which arise with retaining qualified lecturers. (P7)

When asked why institutions have not yet started running the newly developed diploma programmes in construction, the officer explained that the failure of TEVET institutions to commence the training of higher qualifications was because of institutions not having qualified lecturers.

We do not have the workforce to teach the diploma programmes currently developed by TEVETA, such as in bricklaying, plastering, plumbing, welding and carpentry. We do not have qualified staff to teach these courses, so, we rely on those who have experience from the industry to teach, even though they do not have the required academic qualification. (P7)

The data revealed that companies had no deliberate actions aimed at improving the academic and pedagogic competence of TEVET lecturers but were willing to help improve their pedagogic competence through industrial attachments. Both lecturers and graduate employers believed that industrial attachments for TEVET lecturers must be reintroduced and continue to be sponsored by TEVETA using the skills development fund (SDF). When asked to state how the industry can collaborate with institutions to improve the academic and pedagogic competence of TEVET lecturers, a graduate employer from the province with medium HDI had this to say:

We also need to ensure that these institutions have quality lecturers. Even though the institutions may lack modern equipment and other training materials, having quality lecturers will enable institutions to produce employable graduates. There is also a need for capacity building, especially regarding teaching methodology using the SDF. (P5)

Having a similar view with the graduate employers of improving the academic and pedagogic competence of TEVET lecturers, a plumbing and sheet metal lecturer had this to say:

The industry has already done tremendous work by contributing to the skills development fund. Meanwhile, TEVETA has not come up with programmes where lecturers are taken for further studies in pedagogy and academic programmes. TEVETA must thus devise deliberate policies to improve lecturers' pedagogic and academic competence. The lecturers are more than willing to apply and further their studies to improve their pedagogy. (PLE)

Commenting on the proposal for TEVETA to be responsible for improving the academic and pedagogic competence of TEVET lecturers through the SDF, the standards officer had this to say:

With the SDF, we have trained several lecturers on handling exams and want to start upskilling them. Because some of our lecturers joined in the early 2000s and even before, meaning they were last in the industry 15 years ago and are teaching what they learned in the industry 15 years ago. (P7)

It was thus revealed that TEVETA is aware of the urgent need to improve TEVET lecturers' academic and pedagogic competence and plans to start upskilling them using the SDF.

5.4.5 Improved work experience

Regarding improved work experience for TEVET lecturers, the study revealed that there is not much that the industry is doing to improve the experience. Amongst the challenges requiring collaborative effort, unanimously stressed by institutional administrators, lecturers, and the standard officer, was the need for adequate training materials and workspaces. Describing his experience on how inadequate training materials and workspaces are affecting the quality of training, a power electrical lecturer stated:

In my case, we are only three lecturers attending to more than 400 students. Imparting fundamental skills thus becomes very difficult with such numbers. For instance, instead of having three to five students on one workstation, we usually have ten or more. When this happens, we have about five students or more who are spectators. This lack of adequate training materials and workspaces is the situation in nearly all institutions. (PLD).

Agreeing with the lecturers on over-enrolment in TEVET institutions, the standard officer (P7) noted:

...asking institutions through boards to generate their resources for salaries and other running costs has resulted in over-enrolment by some institutions to generate more income to meet their needs. (P7)

He further noted that improving the work experience of TEVET lecturers was being hampered by the failure to implement policies due to a lack of sufficient funding from the government. However,

... the landscape of funding towards TEVET has changed, and most policies are now being implemented. (P7)

5.4.6 Continuous professional development programmes (CPDs)

To establish the nature of the relationship between industry and TEVET institutions, lecturers, institutional administrators, graduate employers and the standards officer were interviewed. The data revealed three main areas of concern regarding continuing professional development programmes in TEVET: industrial attachments for lecturers, review of lecturer's skills, and capacity building.

5.4.6.1 Industrial attachments for lecturers

The data revealed that there were no collaborations in the CPDs for TEVET lecturers. However, the industry was previously involved through attachments of TEVET lecturers to various companies during recess. Institutional administrators, graduate employers, lecturers and the standards officer believed these industrial attachments should be reintroduced. The attachments enabled lecturers to acquaint themselves

with what was prevailing in the industry, enabling them to be up to date with the lessons at their institutions. Lecturers interviewed noted that industrial attachments were good for exposure to current technologies and reducing skills mismatches between what was taught in the institutions and what graduates found in the industry. Explaining his experience regarding CPDs, a lecturer in bricklaying and plastering noted:

Currently, there are no CPDs. However, under DTVT, the predecessor to TEVETA, we used to have such a programme. It was mandatory. TEVETA could pay for two weeks for lecturers to be attached to a company, and TEVETA could pay for our lodging and other logistics. This exposure enabled us to be up to date with current technologies, which we then transferred to our learners. Also, this entails that learners would not be lost in the industry as they would have been exposed to such technologies in a class by their lecturers. Every recess, lecturers spent two weeks at companies, and companies were willing to host them. (PLC)

5.4.6.2 Review of lecturers' skills

The data revealed a need to consciously review lecturers' skills in line with the curriculum review. While the curricula are continually reviewed, the lecturers' competencies are not reviewed. There is a need for continuous training to solve gaps created by retention problems. The participants suggested that colleges should submit gaps in which lecturers require upskilling and suggest industries to which they want to be attached.

Recently, some colleges submitted the gaps they have in pedagogy and proposed some companies where they can be attached to improve their competence. They are asking for a month up to three months attachment period. With that, they will have the confidence to transfer their skills. Even one week's attachment every holiday would be ideal. However, this must start with lecturers who must indicate the areas in which they need exposure.(P7)

The data further revealed that there is an urgent need to upskill TEVET lecturers locally as these were being sent abroad. It was established that TEVET institutions and other higher education institutions in Zambia had a limited set of TEVET higher qualifications. Even the limited set was said to be more theoretical than practical. As such, even the lecturers with higher degrees earned from Zambian institutions had difficulties teaching practical skills. As a result, lecturers were sent abroad to upskill. Sharing his experience with upskilling lecturers, the standards officer had this to say:

When we had DTEVT before TEVETA, we had a programme where lecturers were sent abroad to improve their skills. Some went to German, others to South Africa and several other destinations. Because of a lack of funding, that programme stalled. Locally, others have gone to CBU (The Copper Belt University). Our challenge with CBU is that our lecturers divert to more theory than practice. As a result, we have a massive gap in practice. (P7)

5.4.6.3 Capacity building

Lecturers and institutional administrators stressed the need for capacity building, especially regarding the newly acquired equipment through the SDF. They bemoaned their lack of knowledge and skills in operating the new equipment. They suggested that TEVETA collaborate with the industry to source personnel to equip lecturers with the necessary knowledge and skills to operate the new equipment. An institutional administrator at the Grade 3 institution explained that capacity building was an urgent aspect as the equipment running would lead to massive production, which would bring the institution much-needed revenue for its running costs.

We need capacity building for our lecturers to know how to operate the equipment. We need to push TEVETA to source personnel to orient the lecturers on how to operate the equipment from the suppliers or locally from the industry. If we have the equipment and cannot use it, it is as good as not having it. For now, our focus is thus on building capacity for our lecturers. (P3)

Sharing his experience, a lecturer in power electrical noted that his failure to operate the new equipment was embarrassing for his students.

Nothing is more embarrassing than explaining to students that you, as the lecturer, have no or limited knowledge or skills to operate the equipment formally launched in their presence, and the students are eager to start learning how to use the equipment (PLB).

Additionally, commenting on the need for capacity building through industrial attachments, a lecturer in carpentry and joinery had this to say:

I believe the best teacher is the one who remains a student for life. There is so much we can learn from these industries as lecturers. (PLC)

5.4.7 Sponsor employees for further training

Graduate employers were asked to share their experience sponsoring their employees for further training at TEVET institution. One company responded in the affirmative when asked if they sponsor employees for further training.

Yes, we do. Currently, we have five employees that are being sponsored by the industry. I was also a beneficiary of this sponsorship. (P5)

It was established that the other two companies under study previously sponsored employees to upskill from various TEVET institutions but had now stopped as they failed to retain the employees afterwards. Another reason for the stoppage was the high failure rate among employees, which proved costly for employers. The companies had resorted to giving employees full-time paid study leave. The following experiences by graduate employers were captured:

We stopped sponsoring our employees because we lost most employees to other companies after training them. So, the main issue was retaining these employees after their graduation. We also had several employees who would be sponsored but would fail the courses. Thus, the company spent a lot of money on such employees as it also had to pay for their failed courses. As such, the company abolished this service. (P4)

Back in the day, we used to sponsor our employees. However, for now, we give our employees paid study leave, which is a form of sponsorship, as they are not expected to work. They are given a full salary to complete their full-time studies at TEVET institutions. We have several students in many leading TEVET institutions. (P6)

5.4.8 Curriculum development and review

It was established that to ensure that the TEVET curriculum is responsive to the needs of the industry, curriculum development and review are always conducted in collaboration with the industry. The following is a statement from the standards officer's experience with curriculum development and review:

A curriculum review is done every five years for diploma programmes and four years for craft certificate programmes. The regular review ensures that our training is up to date with what the industry wants. The exercise is conducted in collaboration with industry experts, a few lecturers and TEVETA, which facilitates the process. Sometimes it is the period that dictates, and sometimes its demands from our stakeholders who demand the inclusion of specific components in the curriculum. (P7)

Two out of five of the lecturers and two of three of the graduate employers interviewed indicated that they had never participated in a curriculum development and review programme organised by TEVETA. However, the lecturers and institutional administrators who had participated in the programme noted that TEVETA must improve on the calibre of the curriculum development and review panel and that those in the rural areas must not be side-lined. Commenting on the need to improve the calibre of the curriculum development and review panel, the institutional administrator at the institution in the province with high HDI and a lecturer in the institution in the province with low HDI had this to say:

Lecturers and industry are often invited to participate in such exercises. However, the emphasis should be on the calibre of the panel. (P1)

I was part of the curriculum development team, and I questioned the involvement of lecturers in developing a curriculum for a qualification higher than what they possess. (PLC)

Among those who bemoaned the lack of or limited involvement in the curriculum development and review panel was an institutional administrator from an institution located in a province with a low HDI and a graduate employer from a province with high HDI. The following statements were captured from them:

The only problem is that they do not involve us, the lecturers from rural areas. (P3)

Sometimes, they write to us to give them some of our engineers to sit and participate in the curriculum development and review panels. (P6)

Significantly though, the institutional administrators, lecturers and the standards officer noted a considerable mismatch in the training equipment, not the curriculum. Most institutions had challenges with procuring the equipment stipulated in the curriculum hence the mismatch between what the students were being exposed to at institutions and industry. One of the administrators (P1) noted that skills training was costly, yet institutions received very minimal grants.

Responding to whether he has ever been invited to participate in a curriculum development or review process, one of the employers similarly noted that the main concern is the mismatch between the type of equipment found in institutions and the type of equipment found in the industry.

I have never been invited to any of the curriculum development sessions. However, I do not think there is a huge mismatch between what the students find here and what they learn at the institution. The only challenge is the mismatch between the type of equipment they are trained on and the ones they find in industry. For instance, when it comes to electrical engineering at the institution, they are exposed to the single-phase or two-phase power supply. Meanwhile, we have now moved to using the three-phase supply of power only. (P5)

5.4.9 Supply of teaching and learning materials

Concerning the supply of teaching and learning materials, the study revealed that industry does not supply teaching and learning materials to TEVET institutions. On a few occasions, however, institutional administrators noted that they occasionally receive teaching and learning materials from industry through lobbying. Graduate employers also confirmed that they only supply teaching and learning materials to TEVET institutions when they are approached by institutions needing used or obsolete equipment for learning purposes.

We have not been supplying materials and equipment to TEVET institutions. We help institutions that specifically request used or obsolete equipment for learning purposes. Otherwise, the primary beneficiary is our training centre (P6).

It was further revealed that most institutions had recently received high-tech equipment from the skills development fund through TEVETA. Even though other institutions had not yet started using the equipment, those who had started were already involved in manufacturing various machines by the time of this study. When asked to comment on the status of teaching and learning materials in TEVET institutions, the standards officer said the following:

We managed to procure modern equipment and training materials from the SDF from China and India. Colleges like NORTEC and Choma have started manufacturing agricultural equipment, such as planters, from their new machines. At the same time, other colleges have not even started using the equipment. On equipment, therefore, we are making headways. (P7)

5.4.10 Employment opportunities

The data indicated that most companies offer employment opportunities to graduates from TEVET institutions. Through collaborative links, graduate employers either seek graduating students from the institutions or lobby the industry to employ their best graduating students. Even though institutions manage to get some of their graduates

employed through collaboration, institutional administrators noted that links to secure employment by institutions on behalf of students were difficult.

Yes, we do employ graduates from TEVET institutions. We also retain some students on internships if there is a vacancy. (P5)

We have institutions like Zambia National Service, Water and Sewerage Company and state farms that ask for our graduates. We submit the names, and a good number of them are employed. The collaboration has been good between TEVET and the employers (P3).

Of late, it has been challenging to get into the industry and secure employment for our best graduating students (P2).

5.4.11 Facility or infrastructure improvement

It was brought to light that two of the three TEVET institutions studied were not initially built as training institutions. While one was initially a refugee campsite, the other was a workshop for public transport operators. They needed significant renovations to be considered fit for TEVET programmes. Furthermore, both TEVET institutional administrators and graduate employers felt that facility or infrastructure improvement was a mandate of the ministry in charge of the training. One public graduate employer, however, noted that they were mandated to provide tender and technical advice for infrastructure improvement in TEVET schools.

We offer tender and technical advice to government institutions. So, we do help with facility and infrastructure improvement though it is indirectly. (P5)

The study also established that efforts by institutional administrators to lobby for infrastructure improvement from the industry were usually unsuccessful as the industry questioned their benefits in such ventures.

We had an MOU signed, but it has not worked. An institution came through and wanted to use one of our classrooms, and the institution was to benefit from the furniture and other tools after the departure of the same institution. However, opportunities are there. (P2)

5.4.10 Assessment of training

All participants acknowledged that industry helps to assess students during student placements or attachments. The only difference was that some companies gave sufficient feedback regarding the student's performance on industrial attachments and skill gaps, while others did not. Institutional administrators noted the need to improve the quality of feedback on student assessment by industry. To achieve this, participants suggested that there must be a good collaboration between employers and training institutions regarding student attachments. Institutions must stipulate the skillset with which the employers are expected to help the students under an attachment. Two graduate employers and one institutional administrator had this to say regarding the assessment of the students in the attachments:

We make a writeup at the end of the three months attachment. The students we receive are in two categories: those who return to institutions after the attachment and those who have already graduated and are just doing their internship. So, for those who have already graduated, we offer a recommendation letter indicating this candidate's skills. For those who go back to institutions, we have not given sufficient information, and thus we need to improve on that. (P5)

We give feedback, especially to students who do their internships with us. We give the weaknesses and the strengths and suggest how they can improve. (P6)

Companies help to assess the student's skills and provide feedback. I must mention that we are satisfied with the feedback we get from the industry. After receiving the feedback, we engage the students and the lecturers and inform them of the student's weaknesses and strengths. (P2)

Graduate employers, however, identified five major industry concerns on the quality of students and suggested that there is a need for institutions to teach students going for industrial attachment the following aspects:

- professional conduct and ethics,
- dress code,

- time management,
- customer service; and
- report writing.

5.5 THEME 2: THE INFLUENCE OF EXISTING COLLABORATIVE ACTIVITIES ON SKILLS DEVELOPMENT

The second objective of this study was to gain a better understanding of the influence of existing collaborative activities on the quality of skills acquired by the students. The study explored existing activities aimed at ensuring TEVET stakeholder satisfaction. A surprising insight that has not been very much documented in Zambian literature and revealed by the data collected was what TEVETA has done through the skills development fund and/or levy to improve TEVET stakeholder satisfaction and the quality of skills development. Also revealed by the data were stakeholders' perceptions on the quality of TEVET graduates and the existing challenges experienced by both the industry and TEVET institutions in improving the quality of skills being developed in Zambian public TEVET institutions. The codes and sub-themes that led to the development of this theme are summarised in Table 5.5.

SUB-THEMES	CODES
Stakeholder satisfaction	Stakeholder perceptions on the quality of graduates • Students • Lecturers • Institutional administrators • Graduate employers • Standards officer Programmes and policies aimed at improving stakeholder satisfaction ✓ Introduction of TEVET learnership to bring the industry closer ✓ Employer-based training is an initiative to improve links ✓ Ensure the industry benefits from the Skills Development Levy (SDL) ✓ 10% of the Constituency Development Fund (CDF) allocated towards skills development

Challenges in reducing the skills gap	✓ Lack of funds • No library (difficult to research) • Difficulties in procuring gas • Computer lab has insufficient computers • No internet • Erratic electricity supply ✓ TEVETA to sensitise companies on attachments` ✓ Collaboration benefits not balanced ✓ Use of facilities for workshops and other activities ✓ Industry feels TEVETA should boost the quality of training through SDF ✓ Need for regular liaison meetings to share feedback ✓ Need for sufficient materials and equipment ✓ Boards have challenges in generating resources for salaries and running costs ✓ Over-enrolment of students in some programmes vs less space in the industry ✓ Weak links between TEVETA and the industry ✓ Students come without basic/start-up tools

Table 5.5: Codes and sub-themes of Theme 2

5.5.1 Stakeholder perceptions on the quality of TEVET students/graduates

Based on the different experiences with TEVET students during industrial attachments, graduate employers' assessment reports, and industry feedback through collaboration platforms such as curriculum development workshops, all stakeholders in this study were asked to share their perceptions on the quality of graduates. Stakeholders were further asked to share their satisfaction with the current collaboration links.

5.5.1.1 Students

Students were asked to share their perceptions of how satisfied their employers were with their performance during the industrial attachment. All the students except one indicated with doubt that their employers were satisfied with their performance. Among their reasons for the doubt were the following:

- i. They had learnt many new things during the attachments that were not in the curriculum.
- ii. They felt they knew very little practical work.
- iii. There was a mismatch between practical works exposed to during classwork and what they found during their attachment; and
- iv. Sentiments from employers indicate doubt in their studentship's credibility because they lack specific basic skills.

Some of the students whose views indicated uncertainty about the employers' satisfaction with students' performance during industrial attachments were articulated as follows:

I feel they are satisfied with us though we learnt a lot from the industry that is not in our curriculum. (P8)

For me, I would say that it is 50/50. Sometimes employers will appreciate our work, and sometimes they will rudely ask us if we are sure that we are students. For them, we seem to know very little in practice, which to some extent, is very accurate. Mostly, at college, we learn theory and have very few practical works. Moreover, like some of us doing plumbing, we practice domestic plumbing at college. And then, during my attachment period, I was exposed to pipework, which I have very little knowledge about. (PSH)

For me, in carpentry and joinery, I think they are satisfied, although there is a lot am learning from here that I was not exposed to in class. (PSI)

The student who was certain of the graduate employers' satisfaction with the performance of students during industrial attachment had this to say:

For me, in bricklaying and plastering, I would say that they are satisfied. So far there have been no complaints from my supervisors. (P9)

5.5.1.2 Lecturers

From their interactions with TEVET graduate employers, TEVET lecturers were asked to state whether they felt the industry was satisfied with the quality of graduates from TEVET institutions. Three out of five lecturers stated that they were unsatisfied, while

two stated that they were unsure whether the industry was satisfied. Conclusively, all of them indicated similar reasons for the industry's dissatisfaction with the quality of graduates. The lecturers stated that they felt that the industry was not satisfied because of the mismatch between the equipment students were exposed to at institutions and that which they found in the industry.

It is very difficult to state whether we are satisfied or not. Research has shown that our graduates are having difficulties in the industry. This difficulty can be attributed to our syllabi having older technologies than the technologies in the industries now. (PLB)

I do not think they are satisfied. They have basic knowledge of the application but have difficulties in the actual application. In almost all the skills we offer, the students have difficulties applying what they learn. (PLA).

The training that we give them is adequate. Except that, what we lack are adequate tools and modern equipment. As such, when our graduates enter the industry, they need refresher courses or a particular orientation to the new machinery. (PLE)

5.5.1.3 Institutional administrators

Institutional administrators were also asked to rate the quality of graduates they produced from their institutions. The study revealed that institutional administrators were not very satisfied with the quality of graduates they were producing.

Satisfactory. The complaint we are receiving from the industry is that our learners are not fully baked, so they have to retrain them to fit their needs. This complaint has been received in various workshops by TEVETA. (P1)

Satisfied. We are lucky. The feedback from industry has been very good. However, we feel there is more we need to do to be very satisfied. (P2)

Average. We are not fully satisfied with the quality of training. Students are supposed to be given training that is done effectively. As much as we can have qualified lecturers, the resources are insufficient. Furthermore, we

have a lot of theoretical content which must be replaced by practical content. (P3)

Like the students and the lecturers, institutional administrators also bemoaned the mismatch between equipment and technologies in the industry and that used in the institutions. The following reasons were given for their rating:

- i. There are a lot of gaps and lapses in the skills acquired.
- ii. Employers are forced to retrain the graduates for them to fit in the industry.
- iii. Institutions are struggling with insufficient teaching and learning resources.
- iv. There is more theoretical content than practical content in the syllabus.

5.5.1.4 Graduate employers

Graduate employers were asked to state their satisfaction with students' performance at the institutions under study. The data collected revealed that graduate employers were partially satisfied with the performance of the students or graduates from these institutions. The employers complained of the following issues:

- Industrial attachments were more of a retraining session than adding to what students already know.
- Students from TEVET institutions are not practically skilled; and
- Students have poor communication skills, especially in report writing and verbal presentations.

The employers suggested that the students must be subjected to more practical work at institutions so that industrial attachments must not be made teaching sessions again, as these attachments burden the employers with too much work. They further suggested that communication and critical employability skills must be taught throughout the programme and must not be given as exemptions to students who are upgrading. They argued that practical skills alone without employability skills will only increase the unemployment rates. The following are excerpts from the interviews with graduate employers:

Average. There is room for improvement. More practical experience is done from industries that seem to be more retraining than adding on. Most

of the students have theoretical know-how and less practical experience. They need to be more hands on. (P5)

Fair. We expect that graduates from TEVET institutions should be hands-on or practically skilled. However, most institutions lack upfront equipment for the students to have practical knowledge. (P4)

Average. Certain areas are lacking; for example, they lack critical skills such as communication skills. Exemptions in such skills must be avoided even for students upgrading their skills. So, they are training graduates who cannot communicate and write, cannot write reports correctly, and even their presentation skills leave much to be desired. The curriculum developers should try to understand the industry's expectations regarding practical skills. (P6)

Despite the many challenges, employers hope TEVET institutions can produce highly skilled graduates through meaningful collaboration with the industry. Sharing his experiences with students from one of the institutions participating in this study, a graduate employer had this to say:

Some students show a serious desire to do practical jobs. Even after the internship period elapses, they still hang around and help us in one way or another. What we have done as a section is to give them a serious hands-on internship experience. The good part about students from a certain institution [name withheld] is that they are eager to learn. For instance, they always ask for work if the section head has not allocated them tasks for that day. I am very optimistic that TEVET institutions can offer the much-needed expertise by the industry (P5).

5.5.1.5 Standards officer

The standards officer was also asked to share his perceptions regarding industry satisfaction with the graduates from TEVET institutions because of his central position in the collaboration between industry and TEVET institutions. According to the standards officer, TEVETA, the governing body, had been receiving complaints about the graduates being half-baked. He further noted that the many complaints they

receive confirm the massive gap between what the industry requires and what institutions produce. Lastly, he stressed the need for continuous improvement if the skills gap has to be reduced to acceptable levels.

I would not say they are satisfied. We would not have been receiving complaints about the graduates being half-baked if they were satisfied. The situation is terrible, such that in the end, companies must teach them again for them to fit in in the industry. However, there will never be a time when zero complaints will be recorded. That is why there must be continuous improvement to minimise the skills gap to acceptable levels. In fact, the more we hear the complaints, the more it tells us that we need to do more.
(P7)

5.5.2 Programmes and policies aimed at improving stakeholder satisfaction

To fully understand the steps TEVETA has taken to strengthen the collaboration between its stakeholders, the stakeholders were asked to outline the strides TEVETA has made in line with the same. The study revealed that TEVETA had developed deliberate programmes and policies to ensure stakeholder satisfaction and reduce the practical skills gap. The following programmes and policies were developed.

5.5.2.1 TEVET learnership programme

The TEVET learnership programme was introduced to bring the industry closer to helping institutions train their students. According to the standards officer interviewed, the learnership programme was introduced before 2009 as a dual way of training, just like an apprenticeship. It was a combination of institutional-based and workplace-based training whereby students spent the morning at different companies and reconvened at the institution for classwork in the afternoon. Unfortunately, after the first cohort, some companies pulled out of that arrangement. Meanwhile, the system has been doing exceptionally well in the private sector, especially in the mining sector. The officer cited Mopani Mines Training Centres in the Copperbelt province and Kansanshi Mines Training Centre (also known as Kwambula) in the Western province, among others, as institutions with successful learnership programme stories.

The centres use the dual system with a maximum of 15 students in a class, each with its own working space. Unlike what is prevailing in most public TEVET institutions, students at these centres spend more time on the plant, and their training is slightly longer than the one offered in most TEVET institutions. For instance, their craft certificate takes about three years to complete because of learning at the plant. As such, the graduates in learnership programmes are more productive than those pursuing institutional-based programmes. (P7)

The officer suggested that there is a need to go back to the industry and establish why the programme failed at public institutions but succeeded at private institutions, citing that companies could have pulled out for lack of defined benefits by stakeholders from the collaboration.

5.5.2.2 Employer-based training

Apart from the learnership programmes, it was revealed that TEVETA, through SDF, has enhanced the employer-based training where TEVET institutions provide training services to the industry at a subsidised fee only to those companies who have paid the skills development levy (SDL). The programme is further meant to strengthen the links between the industry and TEVET institutions. Companies choose the employees they want to upskill. The contribution from the company is either in cash or the facilities used for training. Sharing his experiences with the programme, the standards officer noted:

We have not refined the programme, but we are still improving. We cost whatever materials are used to cover the company training and add it to the fees. That way, we are trying to develop stronger links with the industry and ensure they benefit from the SDL. We have ZESCO, Kafue Regional College and many other companies benefitting from this programme.(P7)

Additionally, graduate employers stressed the importance of companies collaborating with TEVET institutions for continued capacity building of their employees. Employers also suggested that they must be billed differently as some companies pay huge

amounts of money towards SDL, yet they are treated equally with those who pay minimal amounts.

Organised refresher courses for employees or capacity building must be done regularly in conjunction with training institutions. (P5)

There is a need for equity in billing companies seeking capacity building through employer-based training. (P6)

5.5.2.3 Introduction of recognition of prior learning

TEVETA embraced recognition of prior learning (RPL) to improve the number of certified practical skills workers and to ensure stakeholder satisfaction. The programme is tailored to certify candidates with informally acquired practical skills formally. RPL is the training for those that have acquired training from friends, industry, or other sources other than training institutions. Depending on the certificate level, candidates are awarded certificates for trade tests or exemptions for higher certificates upon being assessed for the competencies required, as explained below:

We bring an assessor, and a trade certificate is issued. For higher-level certificates, RPL is offered in terms of exemptions from specific courses. We have had employees from mines and other places on RPL. All these are efforts to bring the industry closer, but there is still room for improvement. (P7)

5.5.2.4 TEVET rebranding

In a bid to satisfy the industry's labour needs, it was also established that TEVETA had, in recent years, rebranded the entire TEVET by introducing advanced certificates in most courses, in which the highest was a craft certificate. Construction courses were among the courses which were considered in this rebranding, and diploma courses in the same were developed. The syllabi were then distributed to institutions considered to have had the capacity to implement the programmes. However, most programmes failed to take off because TEVETA decided to upgrade some courses to diploma level without ensuring that the following were put in place:

- i. Qualified lecturers to teach practical courses,
- ii. Necessary training equipment,
- iii. Adequate student and lectures workspaces.

We neglected to check that the identified institutions had the necessary training materials, workspaces and qualifications of the lecturers. Most of the lecturers in our institutions have a craft certificate as the highest qualification in practical courses. Our standards demand that for one to be a lecturer, one must be a step ahead of the students in terms of qualifications, especially for theoretical courses. For practice, the same level of experience is considered. (P7)

The standards officer further noted that TEVETA has included in their 2020 policy the introduction of TEVET degrees, also known as polytechnic degrees, so they can cover the grey areas where we do not have the expertise to take up specific programmes. However, TEVETA has no jurisdiction to regulate degree programmes.

Our challenge as TEVETA in introducing higher degrees has also been that our jurisdiction as TEVETA is to only regulate programmes up to the diploma level. We hope the policies will be reviewed to allow TEVETA to regulate the polytechnic degrees which will be developed. The degrees will help solve the issue of unqualified lecturers in practical courses. (P7)

5.5.2.5 Skills Development Fund (SDF) and Constituency Development Fund (CDF)

TEVET stakeholders were asked to share their experiences with the SDF and CDF. Institutional administrators, graduate employers and the standards officer confirmed that the funds were being made available for skills development, especially for bursaries. The study revealed that through the SDF and the CDF, TEVETA had increased the supply of trained graduates by offering bursaries to youths across the country intending to pursue TEVET programmes at TEVETA-accredited institutions. The standards officer shared that TEVETA has trained quite a considerable number through the same programme by providing bursaries which include tuition, examination, and training material except for registration fees. The use of CDF for

bursaries started before SDF but went unnoticed because the state budgetary allocation was very minimal. The officer (P7) further noted that 10% of CDF is allocated for skills development through bursaries, and in most cases, funding is channelled towards funding short skills at trade certificate Level 3, which has programmes that last up to three months.

Institutional administrators also confirmed receiving funds from SDF and CDF for different programmes. Confirming receipt of funds from CDF and SDF, one of the institutional administrators noted:

We have programmes starting this term, with funds from SDF. The learners are not paying anything. TEVETA pays for exams and tuition fees through the SDF. When TEVETA advertises, we send proposals, and this year, we have eight programmes with SDF sponsorship. Out of these programmes, four of them are construction courses. In each programme, TEVETA is sponsoring 20 students per programme across gender. We also have students pursuing short courses sponsored by the local government office through CDF. (P1)

Additionally, one of the graduate employers had this to say about the bursaries:

I was privileged to be part of a team tasked with identifying institutions that would benefit from bursaries under the current CDF. I am also aware that part of the SDF is channeled towards bursaries. I hope that the engagement with TEVET institutions can be enhanced further through the same resources so that students being trained can have more practical skills. (P5)

5.5.3 Challenges hindering stakeholder satisfaction

It was established that, other than the challenges outlined above regarding implementing programmes aimed at improving stakeholder satisfaction, several challenges were hindering successful skills development, which could otherwise be mitigated through meaningful collaboration between TEVET institutions and the industry. Among the notable challenges identified were insufficient funding, inadequate sensitisation of companies on student attachments, unbalanced

collaboration benefits, inadequate spaces for attachment in the industry and weak links between TEVET institutions and the industry. Stakeholders bemoaned the lack of regular liaison meetings between TEVET institutions and the industry, which could be used for feedback and discussion of solutions to skills development problems. One of the graduate employers shared the following observation:

We must improve communication if cooperation between training institutions and industry should produce tangible results. We can all do better if we improve on our engagements; as the industry, we are so focused on working on our businesses, and even TEVET institutions are concentrating on their mandate, which is teaching. However, I think we should have regular liaison or engagement meetings to discuss solutions to various problems regarding the quality of students and other issues the institutions and the industry face. These meetings would be an excellent platform to share feedback with the institutions. (P6)

5.5.3.1 Insufficient funding

Among the significant challenges affecting quality skills development, as revealed by this study, is insufficient government funding of public TEVET institutions. It was established that all the institutions studied struggle to finance most programmes they offer. Institutional administrators reported that, due to insufficient funding, the institutions could not procure the required training materials and equipment, build and equip their libraries with adequate books, computers, and internet, and ensure a continued supply of electricity and gas. Institutional administrators complained that insufficient funding has led to failure to process students' applications as some institutions do not have sufficient space and materials to enrol large numbers.

Improving the quality of training requires enough finances to procure sufficient modern equipment and tools and continuously improve the infrastructure. We have many applications, but we cannot take on more students because we do not have enough infrastructure to accommodate them. Through collaborating with industry, we hope to find means of raising funds to cushion institutional budgets towards procuring modern equipment and infrastructure development. (P2)

Students also shared their experiences resulting from institutions having insufficient funds to manage and procure training materials and pay for running costs. Among the key challenges students highlighted were the following:

- i. Insufficient computers;
- ii. Lack of internet connectivity for research purposes;
- iii. Erratic supply of gas and electricity;
- iv. Lack of libraries;
- v. Insufficient workspaces;
- vi. Insufficient training materials;
- vii. Lack of modern equipment.

The following experiences were captured from students in the province with low HDI pursuing plumbing and power electrical:

The institutions and the industry must ensure that institutions have enough training materials and modern equipment. For instance, we do not have internet in this school, so even when we have assignments, we have no way of doing research. Moreover, we have no library at this school. So, we score very poorly in assignments requiring research. (PSF)

We do not have gas right now, so we cannot practice the works that require welding. We have a computer lab with only eight computers which are supposed to be used by the whole institution. Even power is a challenge. We go for very long periods without power. For now, we have stayed for a month without power. As such, we cannot study at night. Furthermore, the administrators usually tell us that the institution does not have funds to procure gas or electricity. (P8)

5.5.3.2 Lack of industry sensitisation by TEVETA

Data from graduate employers revealed that there is a need for TEVET institutions to sensitise companies on how they can help students with industrial attachment. Some employers noted that it is difficult to assess students from TEVET institutions at the end of the attachment as they are not given stipulated skills gaps which employers must focus on. As such, students are often exposed to departments where they only

need an extra hand throughout the attachment. Employers gave examples of other universities that describe the skill gaps they need the companies to focus on during the attachment period.

TEVET institutions can learn much from institutions like DMI - St Eugene University, who are very detailed. They indicate the areas that they expect from each student. That makes it easier for us to place the students in departments where they will benefit extensively. The lecturers also come midway through the attachment to check the progress. They also have a workbook which they sign every Friday, and the line supervisor signs off. So, I think the public TEVET institutions must learn from such institutions.
(P6)

The study further highlighted the need for institutions to scrutinise the capacity of industries concerning their training programmes so that students on attachment must have the industrial experience that will benefit their training programmes. Employers suggested that training institutions formally write to companies to inquire if they can take up their students on industrial attachment depending on the type of training and the nature of the business. According to them, this would ensure that there is a minimal mismatch between what they learn at the institution and what is found in the industry. Employers also suggested that companies must be encouraged to request training institutions for interns.

On the other hand, industries can also request institutions when they need specific skills. For instance, we request interns in various fields from many other institutions. (P5)

Some students expressed dissatisfaction with their choices of companies as they had not benefitted much from being attached to them. Students, just like employers, were also of the view that lecturers must visit the students during attachments and assess the working environment. The students noted that the visitations would enable the lecturers to assess whether they are being exposed to the intended atmosphere for perfecting their skills. A student in carpentry and joinery had this to say:

The institutions must be able to check that the companies have the equipment and materials which they expect us to practice with. That way, there will be no difference between what we learn at school and what we find during attachment. (PSI)

Additionally, some of the students interviewed expressed dissatisfaction with the reports written by their supervisors at the end of the industrial attachments and suggested that institutions must give sufficient guidelines on how these reports must be written. Below is the experience of a power electrical student in respect of reports:

I have finished my internship and am still hanging around because my report has not been written. Furthermore, even the students who have been given reports are complaining that their reports have not been well attended to. These reports are essential because they help us. As such, I feel the institutions must be given proper guidelines on how these reports must be written. (P10)

5.5.3.3 Unbalanced collaboration benefits

Graduate employers and institutional administrators were asked to share their views on what they felt was the cause for the failure of the many memoranda of understanding (MOUs) signed between TEVET institutions and different companies. The study identified unbalanced collaboration benefits as the primary cause for the failure of the MOUs and poor collaboration links in general. It was established that the industry and TEVET institutions are not satisfied with the benefits compared to what they have to put in. According to the data collected from the industry, the rewards of the collaboration do not match the cost they are putting in. For instance, one employer (P6) lamented the cost of employer-based training, citing that “the company is paying huge sums of money towards SDF, and yet it still must pay 50% of the total cost of training.” For them, this percentage is equivalent to being taxed twice. The employer suggested that they should be given a 75% waiver towards the cost of the training, adding that apart from the huge sums of money the company is remitting, the company supplies most of the training materials and facilities towards the training.

All administrators also confirmed that most companies refuse to sign some MOUs because they feel they are being mistreated. Their argument borders on the quality of students they receive during attachments and the graduates they employ, citing that they lack sufficient practical skills. As a result, employers are forced to retrain them before they begin their work. Employers thus felt that the resources they spend in retraining the graduates entail double taxing by TEVETA as the companies already pay SDL, which must be utilised to improve the quality of the graduates. One of the institutional administrators complained of unfair treatment by some companies who, when approached by his institution for help, bluntly referred the institution to TEVETA as the collectors of SDL. The companies claimed TEVETA is not doing much to ensure that SDL is channelled towards improving the skills being developed. According to the administrator:

The companies are complaining because they pay the skills development levy. They argue that TEVETA, through the SDL, should be able to boost the quality of training in TEVET institutions. So, undefined benefits have been the huge challenge brewing between the industry and TEVETA regarding collaboration. (P1)

On the other hand, institutional administrators also felt they were not benefiting much from their collaboration with the industry. Institutional administrators felt that the companies were unrealistic with their demands and were not playing their social responsibility roles. Lamenting on the collaboration between one of the institutions under study and the local government departments, the institutional administrator had this to say:

We have noticed that we offer much more than we are receiving. For instance, when we request help procuring specific equipment, the help rarely comes up. However, we have often been asked to surrender our infrastructure and furniture to be used by private and public institutions without being rewarded. As we speak, our area was recently declared a new district by the new government, and we have been asked as an institution to surrender almost half of our offices together with the furniture

to be used as the new district offices. There is not much trickling down from them to us. As such, we are more on the helping end. (P3)

Additionally, the standards officer (P7) bemoaned the fact that many companies are still not paying the skills development levy. He suggested that the government must develop strict compliance measures to compel all companies to pay this levy.

5.5.3.4 Over-enrolment of students in some programmes

The data revealed that while institutional administrators complained about enrolment, graduate employers complained about having less space in the industry. Therefore, it was established that the lack of adequate spaces in the industry was one of the reasons TEVET students struggled to find space for industrial attachment. After further probing, it was discovered that some institutions are forced by institutional boards to over-enrol in some programmes so that they can raise funds to finance their training and administrative needs.

Skills training is costly, yet institutions receive very minimal grants. As a result, we are forced to over-enrol despite having inadequate infrastructure and materials. The board's directive is to raise funds to pay for the staff and training materials. (P1)

Consequently, it was established that some companies feel overwhelmed with the many interns or students they receive seeking internship spaces. Employers thus suggested that there must be enhanced collaboration between TEVET institutions and the industry to harmonise the significant number of students seeking internships and the less space in the industry.

Explaining why public TEVET institutions are producing graduates who are not satisfying the industry needs, lecturers referred to over-enrolment as a contributing factor. The two construction courses with high numbers of students were power electrical and plumbing.

The lecturer-student ratio is very high compared to the available training materials. As a result, our students take with them more theory and less practical skills. (PLE)

In TEVET, we do not teach students to pass the exams but to go and perform in the industry. Learning by doing with high enrolments compared to available resources is thus a very big challenge. (P7)

5.5.3.5 Weak links between TEVET institutions and industry

The study further revealed that the collaboration links between TEVET institutions and the industry are weak and not meaningful. As a result, most collaborative activities are either held in low esteem or even abandoned by the aggrieved stakeholders. The weak links were attributed to a lack of defined benefits and policies to compel stakeholders to collaborate.

The links are there, but they are too weak. We currently have interactions with the industry, but they are not very meaningful. (P7)

We must develop more organised interactions to benefit training institutions and the industry (P5).

5.5.3.6 Failure to meet industry demand in some courses

The study revealed considerable challenges in meeting industry needs in some programmes regarding the number of graduating students. Critical numbers were in carpentry, joinery, bricklaying, and plastering, where all participating institutions reported having either no students or very few students in most intakes.

Most of the time, I have less than ten students for carpentry. The enrolment levels are very low, such that in the current exams, I only have one student. Moreover, this problem is not only with our institution. Others have even stopped running the programme. (PLB)

Among the many factors attributed to this poor enrolment is the population's poor perception of the course. The named courses are perceived to be courses tailored for school dropouts and those who do not have a school certificate that can enable them to get enrolled in universities.

I will give you my personal experience. During the time that I was doing this carpentry course, I vividly remember two situations. One involved my

former classmate. She asked me why I was doing carpentry. Her question was: “Is it because your results were that bad?”. The other one was when my cousin bluntly told me that I would waste two years on a course that would not benefit me. So, most people think of carpentry as a very low-profile course. There is so much inferiority complex towards the course. Moreover, when you look at the industry, we do not have many companies willing to take students as interns or to hire them. (PLB)

It was also revealed that some courses demanded by the industry could not be offered because of insufficient funds to finance them. Nevertheless, the standards officer noted that the funding landscape had changed considerably with the collection of SDL, and the sector now receives reasonable funding towards TEVET.

The other challenge has been funding. In other countries, TEVET is highly funded. Right now, we are beginning to see a lot of change with the new government. There is some good funding available right now. (P7)

Overall, the data concerning stakeholder satisfaction revealed that most stakeholders who participated in this study were not satisfied with the quality of graduates from TEVET institutions. Despite TEVETA introducing some programmes and policies to improve stakeholder satisfaction, such as the TEVETA learnership and employer-based programmes, and the SDL by the Ministry of Higher Education and the CDF through the local government authorities, the quality of skills development still has several gaps that need urgent attention.

The data also highlighted several challenges TEVETA faces in trying to satisfy the stakeholders regarding the quality of skills development. The challenges identified were lack of funds, unbalanced collaboration benefits, lack of regular liaison meetings to share feedback among stakeholders, weak links between TEVETA and industry, and over-enrolment of students in some programmes compared to the available space in the industry, among others.

5.6 THEME 3: THE INFLUENCE OF EXISTING POLICIES ON COLLABORATION BETWEEN TEVET INSTITUTIONS AND INDUSTRY

The data extensively engaged the standards officer, institutional administrators, graduate employers and lecturers to understand the influence of existing policies on collaboration between TEVET institutions and industry. Students were selectively engaged as they were considered not sufficiently knowledgeable about most concepts under this objective. The study revealed that policies with balanced benefits among stakeholders are critical in ensuring the success of the collaboration between TEVET institutions and the industry. The study highlighted the existing collaboration policies, existing platforms for collaboration, emerging challenges during the collaboration, and proposals and recommendations from TEVET stakeholders on how collaborations must be developed and managed. The codes and sub-themes that constitute this theme are summarised in Table 5.6.

SUB-THEMES	CODES
Existing policy	✓ No government policies except the SDL ✓ Investment Policy by TEVETA ✓ Training Policy by TEVETA ✓ TEVETA regulates, coordinates and monitors TEVET in conjunction with the industry ✓ Current policies in the form of MOUs developed by institutions ✓ TEVET Act and policy guide interactions ✓ Institutional strategic plans
Existing platforms for collaboration	✓ MOUs with various companies ✓ Curriculum review and development (platform) ✓ Examination setting
Emerging challenges	✓ Interactions not meaningful ✓ SDF not effectively managed – bureaucracy and red tape ✓ Company complaining of being taxed twice ✓ No incentives to motivate the students

Stakeholder proposals and recommendations	✓ Need for highly organised interactions ✓ Institutions must guide interactions to meet their objectives and remain relevant ✓ TEVETA to offer guidance and support on interactions ✓ A collaborative body must spearhead interactions among stakeholders. ✓ Need for clearly outlined benefits ✓ Jointly organised refresher courses ✓ Collaboration to ensure more practical content and equip institutions with the necessary equipment. ✓ Feedback from TEVETA SDL usage (lack of transparency) ✓ Both the industry and institution suggest that part of the SDF must be allocated to students on attachment. ✓ Need for strict compliance measures on collaboration policy ✓ Need to capture more skills ✓ Improve enrolment and retention of bricklaying and carpentry students ✓ Graduating students must be given start-up tools ✓ Need for staff empowerment ✓ Encourage institutions to trace their graduates ✓ Training institutions to consult the industry on curriculum development, industry experience and industry tours. ✓ Need for an organised calendar on attachment to ensure availability of space for all students ✓ Reduce fees to increase student enrolment ✓ The cost of attachments and CPDs must be borne by SDF. ✓ Reduced fees for employer-based training ✓ Need for incentives to promote cooperation

Table 5.6: Codes and sub-themes of Theme 3

5.6.1 Existing policies on collaboration between TEVET institutions and industry

The data revealed that not all stakeholders are aware of the existing policies on collaboration between TEVET institutions. At the same time, those who are aware do not fully understand the content of the policies. Institutional administrators were asked if they had any institutional or governmental policies which guide the collaborations with the industry. Two of the three TEVET institutional administrators expressed a lack of knowledge of the policies governing collaboration between training institutions and industry. However, they knew that TEVETA had given them leeway to sign memoranda of understanding (MOUs) with various companies. They also stated that collaboration with industry was also stated in their institutional strategic plans, but the plans did not contain enough guidelines on how collaborations must be developed and managed.

I do not know of any policies on collaboration with industry, but we have a strategic plan as an institution where collaboration is mentioned. The ministry has also given us leeway to collaborate with the industry. (P1)

The institutional administrator who was knowledgeable about policies on collaboration had this to say:

We have an investment and training policy by TEVETA, emphasising the need to collaborate with the industry. As an institution, we also have guidelines in our strategic plan for collaborating with the industry. (P2)

It was thus established that there was a need to fully sensitise all institutional administrators on the available policies on collaboration. Similarly, graduate employers were asked if they had company or governmental policies guiding their interactions with the training institutions. All the employers denied having company policies and expressed ignorance about government policies guiding collaboration between TEVET institutions and industry. However, they were aware of the recently introduced skills development fund (SDF), to which the government, through TEVETA, was compelling industries to pay a skills development levy (SDL). Employers

suggested that there must be stipulated policies which must guide their collaborations with the industry.

I feel that there must be policy guidelines to guide these interactions. That way, we, in the industry, will be compelled to work with training institutions. (P4)

We do not have any policies on collaboration with training institutions. However, I feel the department of human resources must have such policies. (P6)

No. We do not have any policies that guide our collaborations. (P5)

The standards officer noted that apart from the investment and training policies, interactions between training institutions and industry are mainly guided by the TEVET Act Number 13 of 1998 or the amended Act Number 11 of 2005 of the Laws of Zambia and the TEVET Policy of 2020. Overall, it was revealed that TEVETA regulates, coordinates and monitors TEVET in conjunction with the industry. The officer further noted that TEVETA had permitted TEVET institutions to sign MOUs with companies of their choice. However, TEVETA requires that institutions provide information about these MOUs so that in case of any challenges or grievances, TEVETA can seek the help and support of the Ministry of Science, Technical and Vocational Training (MSTVT).

We are using the same TEVET 2020 policy to interact with the industry. The TEVET Act and Policy direct us to work with the industry as the existence of TEVETA hinges on working with the industry. (P7)

5.6.2 Existing platforms for collaboration between TEVET institutions and industry

The data revealed that there are limited platforms where TEVET institutions and employers meet to discuss matters affecting skills development quality and how they can mitigate them. The platforms are when signing MOUs, during curriculum and development and review, and during exam setting. The institutional administrators noted that the main platform for their interactions with the industry has been when

seeking and signing MOUs. They further noted that they would appreciate a broader platform for collaboration which can be used to showcase products and services by stakeholders and possibly sign more MOUs. Narrating his experience with MOUs with various companies, one of the institutional administrators had this to say:

We have MOUs with Lusaka Water in water sector programmes such as plumbing and water operations. For instance, every Friday, we do have staff from Lusaka Water who come to conduct actual practical training. With Lusaka Water, we also send our students to train at their company. Students go twice a month for fieldwork. They work with experienced employees of Lusaka Water in the field. We also have Davies and Shirt Lift, who also come with their staff to train our students on what is available in the industry. We also have an MOU with ZESCO. Our power electrical students get attached to ZESCO for three months. Those are the three active companies regarding collaboration. We currently have ten programmes running in our institution. However, the ones where we have MOUs are only three. We are still pursuing other industries to come on board for other programmes. (P1)

Lecturers felt there are no platforms for collaboration between TEVET institutions and the industry. According to them, very few people were chosen to participate during the signing of MOUs, curriculum development and review, as well as the setting of exams. Therefore, they also suggested that there must be broader platforms where more stakeholders can fully participate. When asked if there are platforms where they collaborate with industry, one of the lecturers had this to say:

I think there are no such platforms. We would love to have such platforms where we can collaborate with industries. (PLC)

The standards officer noted that apart from collaborative platforms, challenges are usually triggered by situations that arise and demand that stakeholders affected by those challenges be called upon. As such, TEVETA holds several stakeholder meetings.

Mainly, the major platform has been during curriculum development, review, and exam setting. We also have several stakeholder meetings. Challenges usually trigger calling upon stakeholders affected by that challenge. (P7)

5.6.3 Emerging challenges hindering successful collaboration

Stakeholders were asked to identify challenges experienced during their collaboration. The study revealed that stakeholders' responses mainly concerned dissatisfaction with the organisation of collaborative activities and shared benefits. Five challenges were identified, and these are:

- i. Interactions are not meaningful
- ii. Bureaucracy and red tape when accessing employer-based training funds
- iii. Companies complaining of being taxed twice
- iv. Lack of incentives for students
- v. Lack of insurance coverage for students

5.6.3.1 Interactions are not meaningful

Stakeholders were asked to describe whether their interactions were meaningful and adequate. It was established that interactions were neither meaningful nor adequate. Lecturers felt that most of the interactions were centred on student industrial attachments and neglected many other activities crucial to improving the quality of skills development. For instance, lecturers felt that the collaboration neglected the need to continuously improve the skillset of lecturers, who are the core transmitters of the skills. Sharing his experience with students who go on industrial attachment, one of the lecturers noted that there is a need for lecturers, just like students, to be exposed to new technologies if they have to offer quality technical help to their learners.

I concur with my colleagues who have stated that interactions are not adequate. I deal with water, and new technologies have come on board, which are pretty challenging for me. You will find that when students go into the industry and face challenges operating the new machinery and call for help, it is usually very embarrassing for me to tell students that I do not know the machine they are talking about. (PLB)

It should be mandatory for lecturers to be sent to the industry regularly. For instance, for two weeks or a month, once or twice a year, so that they are also up to date with prevailing technologies. TEVETA must also ensure that institutions send their staff to the industry for exposure by coming up with compliance measures. (PLD)

Institutional administrators, graduate employers and the standards officer expressed the same sentiments that the interactions were not meaningful and adequate. They all mentioned the need to be aggressive in making these interactions meaningful. The standards officer also noted that TEVETA is trying several ways to bring the industry closer. The following sentiments were captured from an institutional administrator and a graduate employer:

Currently, interactions are not very meaningful. However, going forward, we should be aggressive in making these interactions meaningful. (P2)

I would not say we have meaningful interactions. Occasionally, we have signed some MOUs with some institutions, but they have not been very successful because of a lack of funds from our side. (P5)

And the standard's officer had this to say:

We currently have interactions with the industry, but they are not very meaningful. We are, however, trying to bring the industry closer. (P7)

5.6.3.2 Bureaucracy and red tape when accessing employer-based funds from TEVETA

Despite appreciating the initiative by TEVETA to come up with shared costs for employer-based training, some graduate employers complained of the bureaucracy and red tape accompanying the release of these funds.

There is too much red tape and bureaucracy when accessing these funds. And honestly, as business entities, we do not have enough time to go through all these loops. They need to refine the process of accessing these funds. (P4)

The employers suggested that TEVETA must come up with electronic verifications of the SDL status of the companies so that the companies are not subjected to signing numerous MOUs each time they want to access these funds. Employers noted that they have bottlenecks when signing MOUs, which usually disadvantage them differently. Sharing past experiences, the employer in a quasi-government institution lamented:

For institutions such as ours, we need to send the MOU to the Attorney-general for vetting, and by the time we receive feedback, we find that the deadline for the course application has elapsed. Moreover, we cannot have an MOU signed before the Attorney-general vets it and gives us the go-ahead. On top of that, we must sign contracts which show each course and the price. Moreover, even the contracts must go back to the Attorney-general. (P6)

5.6.3.3 Companies complaining about being taxed twice

The study established that employers were dissatisfied with the employer-based funds received from TEVETA, stating that the funds were adequate. They argued they are being taxed twice because, in addition to paying SDL, they are doing many things for the institutions, which are not being costed. Examples included training facilities and equipment used during employer-based training and start-up kits for students during industrial attachments. They further argued that some organisations pay much more than other companies, and therefore there must be a distinction in the allocation of funds. Lamenting about their experience with TEVETA, one employer stated:

50% is a joke; they must fund about 75% of the training costs. For example, our company contributes a million kwacha every month towards skills development, and we must pay 50 % to train ten employees. Additionally, they use our facilities for training, which they do not add to the course cost. So, it is like we are paying double. We spend way more than we benefit from the funding. We are being taxed twice. (P6)

5.6.3.4 Lack of incentives for students

The study revealed that most students face diverse logistical challenges during industrial attachments, which would otherwise be minimised if students were given stipends. Students noted that skills training is very demanding and finding attachment places in desired places is usually a big challenge. Mostly, students complained about the long distances between institutions and their workplaces. The following experiences regarding incentives for students were captured from students:

We do not have any place to intern near the college because it is situated in the village, about seventy kilometers from the central business district (CBD). There is no proper public transport, and the roads are usually impassible by cars. The only way to get to the attachment places is thus by renting a room in the CBD. So, you find that if you do not have resources, you are psychologically disturbed throughout the internship as you must walk long distances and, most times, without even eating lunch. (P8)

You cannot work properly on an empty stomach, or you might cause some accident or injure yourself. So small incentives must be given, especially for labour-intensive skills. (PSJ)

Justifying the need for incentives, one of the graduate employers had this to say:

We are not doing much to help and motivate the students on industrial attachments. We feel TEVETA must apportion a fraction of the SDF towards stipends for students on attachment. Most of the students we receive come from very distant colleges or homes. Moreover, skills training is very demanding. Therefore, students must be given incentives to help them with logistics to procure simple tool kits when they report for their attachment. (P5)

As such, students and employers felt that TEVETA, through training institutions, must provide stipends to cover the following aspects:

- transport
- accommodation

- lunch
- startup tool kit.

5.6.3.5 Lack of insurance coverage for students

Students shared their concerns about lacking medical insurance coverage. According to them, practical skills are very tasking and risky as they are prone to get injured even when safety measures have been put in place. Students suggested that institutions must secure such insurance cover on behalf of students.

For me, there must be some form of insurance coverage for students. Because, for instance, for us in power electrical, the chances of sustaining injuries whilst working are high. So, if you get injured, the company does not cover the medical bills because you are not their employee. (P9)

5.6.4 Stakeholder proposals and recommendations

All the participants in this study were asked to propose how collaboration between TEVET institutions can enhance skills development and reduce the prevailing skills gap. Participants shared their sentiments and experiences relating to the various collaborative activities highlighted in this study.

5.6.4.1 Need for highly organised interactions

The study revealed that for collaboration between TEVET institutions and industry to be meaningful, there is a need for the interactions to be highly organised. Diverse suggestions emerged with regards to who should guide these interactions. Participants suggested that TEVET institutions, industry, or TEVETA must lead the interactions. The graduate employers who suggested that TEVET institutions must lead interactions noted that they must guide the interactions because they are the ones selling the product, which are graduates. For this reason, P4 suggested that they should ensure that they produce employable graduates. They further noted that institutions are more aware of the strengths and weaknesses of the students because they are the ones who interact with them the most. Additionally, one of the institutional administrators noted:

Collaborations must begin at institutions; we should be able to drive the linkages and synergies. To meet our objectives, we must collaborate with the industry. We are also aware that we are not the only institutions. Other institutions are competing with us, so to remain relevant, we must be at the forefront to drive the synergies. (P2)

The standards officer also noted that institutions must guide these collaborations because TEVETA has no control over the institutions' choice of interactions. TEVETA has given institutions the authority to interact with the industry on their terms, except for examinations. TEVETA regulates all the examinations regardless of the terms of interaction between an institution and the industry.

We do not control TEVET institutions regarding developing and maintaining interactions. Most of the institutions sign MOUs without involving us. We only come in when it requires our authority, for instance, in examinations. We require that if it has to do with examinations, they need to consult us to conduct the examination in line with our curriculum. (P7)

Advancing their justifications for TEVETA to guide the interactions, some lecturers noted that training institutions have many limitations despite being the best to guide such collaborations. As a result, using a portion of the SDL, TEVETA must take up this role to guide the collaborations. Graduate employers also noted that they expect the institution that has been empowered to collect SDL to take up the mantle to procure up-to-date equipment for all the institutions and to spearhead issues of staff development, industrial attachment, collaboration and the like. According to them, *"the industry's money must work for them as they concentrate on making profits"* (P5). Having a similar thought, a lecturer in plumbing and sheet metal had this to say:

I feel TEVETA being the focal institution, should lead interactions. TEVETA collects the skills development levy from the industry, receives funding from the ministry, makes policies, develops the curriculum, and moderates the exams for institutions, among other roles. So, the quality assurance section must oversee these interactions. (PLE).

The one who suggested that the industry must lead the interactions noted that the industry is the first to receive the latest technology. As a result, they know what has come on board before institutions know about it. More importantly, *“the industry expects the graduates they will employ to know about these latest technologies”* (PLC). Making the industry lead the interactions will entail institutions being notified early of the new technologies.

Contrary to the suggestions above, one of the graduate employers suggested that a collaborative board of members from TEVETA, industry and TEVET institutions must lead the interactions. The problems regarding skills development can only be mitigated through collaboration if all stakeholders are equitably involved in decision-making.

I think all stakeholders must be involved if interactions are to succeed. As an industry, we are the ones who need this resource. Institutions produce the resource, so the industry must try to solve institutional problems to have a quality pool of graduates to employ. On the other hand, TEVETA regulates training. (P6).

5.6.4.2 Need for clearly outlined benefits/incentives

The data suggested that some graduate employers need to be aware of the incentives TEVETA has put up to encourage collaboration between training institutions and the industry. Additionally, graduate employers expressed concern with most of the MOUs they sign, citing that they lack clearly outlined benefits, especially for the industry. In most cases, institutions constantly seek the industry's help but do not bring to the table how the industry will gain from the institutions. As such, they noted that stakeholder engagements are critical in airing such grievances and sensitising the industry on many issues, including the benefits of the interactions between training institutions and the industry. Commenting on the need for clearly outlined benefits from the collaboration between TEVET institutions and industry, the graduate employers from provinces with high and medium HDI had this to say:

I think stakeholder engagement is critical. If this is done, institutions will better understand what each stakeholder expects to benefit from the exchanges. (P6)

The benefits of the interactions must be evident to both parties. There must be incentives for collaboration to work. Currently, there are no incentives that I am aware of. (P5)

Confirming that some incentives are already in place and were being enjoyed by some stakeholders knowledgeable about them, the institutional administrator from the province with medium HDI had this to say:

Incentives are already there. TEVETA has come up with incentives that even we, as end users, are also enjoying. For instance, the employer-based Window, where training institutions conduct a training needs analysis and develop an MOU to train some staff in industries where the needs have been identified. The MOU is such that the identified industries pay half of the training fees, and TEVETA also pays half. As such, industries enjoy the downsized cost of training by 50% if they train their staff through public TEVET institutions. Institutions also benefit as these fees towards such training help mitigate the institutions' running costs. (P2)

5.6.4.3 Collaboration to ensure more practical content and equip institutions with the necessary equipment

Student participants suggested that through collaboration, institutions must ensure that students are exposed to more practical content by securing adequate and meaningful places for industrial attachments. Additionally, institutions must ensure that they stock the necessary equipment, including tool kits, for industrial attachment by students. Students indicated they struggle to secure tool kits during attachments as companies stock just enough tools for their employees. Employers expect students to come with essential tools when they report for the attachment. The following comments were derived from student participants:

If institutions collaborate with the industry, they will be able to know the new equipment in the industry. They will also be able to restock the equipment in line with what is currently in the industry. (P10)

The institution must be giving us tool kits. When we report for work, the employers expect us to come with our tools, but we do not have them. Some

tools are not very expensive, and we can buy them on our own, but there are also tools that we cannot buy on our own. With these, the institute can help us to procure them. Alternatively, they should be stored at the institute and given to students during practical work and internship. (PSJ)

5.6.4.4 Need for feedback from TEVETA on SDL usage

To gain the industry's confidence and trust, graduate employers suggested that TEVETA must hold collaborative meetings or use other platforms where they can update stakeholders on the usage of SDL. One employer (P6) noted that it is only fair that the levy payers are aware of how the authority in charge of the levies is utilising the funds. According to employers, transparency is vital if collaborations are to be successful.

5.6.4.5 Need for strict compliance measures on collaboration policy

Institutional administrators suggested a need for strict compliance measures on collaboration policy if collaborations between industry and training institutions are to be successful. They argued that current MOUs between the industry and training institutions lack reinforcement and as such, parties do not feel obliged to meet their promises and sometimes pull out without even informing the institutions. At the same time, it was revealed that some employers refuse to pay SDL because they feel that paying the levy and being compelled to collaborate with institutions is double taxation on their part. TEVETA must therefore ensure that there are strict compliance measures on the payment of the SDL by all companies. Institutional administrators had this to say as justification for the suggested measures:

We might sign MOUs with companies, but without reinforcement from TEVETA, they are rarely fruitful. For instance, three years ago, we signed an MOU with a company that supplies agricultural equipment, yet no tangible results have been realised. (P1)

Others are paying training levy while others are not. Therefore, there must be strict compliance measures on the payment of training levies so that these monies can be of benefit not only to institutions but also to the learners. (P2)

5.6.4.6 Need to capture more construction skills

Institutional administrators noted with concern that there are so many construction skills that TEVETA has not captured, yet the industry desperately needs them. For instance: *“Zambia is currently importing labour to do tiling and ceiling boards from South Africa and Zimbabwe”* (P1). The administrators thus suggested a need to capture more construction skills to avoid unnecessary importation of labour that could otherwise be sourced locally.

5.6.4.7 Improve enrolment and retention of students in some courses

The study revealed that while institutions are struggling with over-enrolment in power electrical, plumbing and sheet metal programmes, they are also struggling with under-enrolment in bricklaying, plastering, carpentry and joinery programmes. It was also revealed that institutions struggle to retain the students in programmes with poor enrolment as many drop out in the programmes' first few months. Therefore, institutional administrators suggested that stakeholders can find ways to improve the enrolment and retention of students in some courses through collaboration. They further suggested that these courses must be revised and shortened.

Students drop out once they have learnt the basics. Unfortunately, these courses have received the worst enrolments, especially over the past two years, when we have had no applicants for both courses. For instance, we have only ten applicants in the three months SDF programme and no applicants in the mainstream programme. (P3)

Students range from 1 to 5 in these courses. We are calling for these programmes to be revised and made shorter to reduce the dropout rate and to encourage people to enrol. The duration is too long. There is a need for short intensive programmes. (P2)

5.6.4.8 Graduating students must be given start-up tools

The study established that institutions must, in addition to entrepreneurship, help students to start up SMEs. Institutional administrators noted that most students end up packing their skills qualifications and diverting to academic qualifications after

failing to find jobs. The administrators further noted that failure to empower graduates with start-up kits is contributing to unemployment and defeating the core aim of TEVET, which is to empower students to get into the market and fit in and provide a livelihood. Students also shared the same sentiments that institutions must be able to give them start-up kits after graduation so that they do not compete for the already limited jobs on the market.

There are very few jobs out there. So, if they can help us through some arrangements to start up small businesses to sustain ourselves using the skills we acquire from these institutions. The help can be in the form of startup tool kits after graduation and registration of businesses or in the form of cooperatives for the alums. (P9)

Soft loans can also be given, where the institution must facilitate the acquisition and monitor the usage. (PSG)

Primarily, our students come from very vulnerable backgrounds. So, if they are given some small tools which they can start from, despite having difficulties finding employment, they can start small-scale businesses. (P2)

5.6.4.9 Need for staff empowerment and motivation

The administrative and teaching staff are all crucial to the success of quality skills development. The study established that the staff in public TEVET institutions are poorly paid, making it difficult for them to retain highly qualified staff. Once staff members upgrade their academic and professional qualifications, they are usually lost to private institutions and the industry because they offer them better conditions of service. Lecturers and institutional administrators thus suggested that there is a need to empower and motivate the members of staff so they can be more productive and remain in public institutions. Lamenting on how demotivating it is to work for public TEVET institutions, one administrator shared his experience:

I and many others have been at this institution for over 20 years. No promotions. I came to this institution in 1996 and got promoted to Head of Department in 1998. Since then, I have remained in this position without any promotion. (P3)

Additionally, a lecturer lamented on the impact of poor salaries on lecturers' general motivation towards their work. He stated:

Our salaries are very demotivating. If our salaries cannot be increased, we must at least be empowered with start-up kits to be financially stable. It is never encouraging to stand before students and teach skills which have failed to make you, the teacher, financially stable. (PLE)

5.6.4.10 Encourage institutions to trace their graduates

Other than waiting for the industry to approach TEVETA regarding the skills they need, which often triggers curriculum review, the standards officer suggested that institutions must take it upon themselves to conduct tracer studies. He further noted that, through collaboration, it would be easy for institutions to trace their graduates and find out how they are faring.

The industry must also give us feedback on the quality of our training. If our links can build on that, we can improve the quality of the graduates. Institutions must conduct tracer studies of their graduates and their lecturers' performance. (P7)

5.6.4.11 Need for an organised calendar on industrial attachment to ensure availability of space for all students

It was also revealed that the lack of industrial attachment spaces is also contributing to institutions producing half-baked graduates. The standards officer noted that few companies accept TEVET students on attachment. On the other hand, graduate employers complained of being overwhelmed by the large numbers of students who approach their companies seeking spaces for industrial attachment. As a result, some students graduate without being attached to any industry. To ensure the availability of spaces for all students, graduate employers proposed a need for an organised calendar on industrial attachments. They suggested that institutions must be divided into streams so that they do not all offload their students for attachments simultaneously. Alternatively, they suggested an inventory of companies that take on students for attachments can be formulated and apportioned to specific institutions.

We have been working on improving our links with the industry to create space for all our students to undergo attachments before graduating. Our curriculum demands that the students spend three months on the attachment, but there is nowhere to attach these students, so they graduate without industry experience. (P7)

With COVID and the disruption of school calendars, we have many institutions sending their students on attachments simultaneously. Through collaboration with industry, institutions must develop an organised calendar for attachments; that way, all students will be given a chance to be attached to industries. (P6)

5.6.4.12 The SDF must bear the cost of attachments.

Institutional administrators complained that they have failed to secure MOUs with the industry, which centres on the industry giving incentives to students on industrial attachments. They also noted that most of their students come from vulnerable backgrounds, and the issue of giving them incentives to cushion their needs during industrial attachment cannot be ignored. As such, they suggested that TEVETA must take up the cost for the attachments, such as transportation and lodging, among other costs. Industries will benefit from free labour, and institutions will benefit from access to modern equipment.

From our end as institutions, it is difficult because companies argue that they pay the SDL to the government. For them, the SDF must be able to fund the training. In that way, companies feel they shall benefit from the SDL, which they are compelled to pay. (P2)

5.6.4.13 Use collaboration platforms to create awareness and sell products

The data revealed a lack of good policies governing TEVET by stakeholders. It was also revealed that some stakeholders are unaware of initiatives meant to strengthen the collaboration links. It was also established that some companies have a wrong perception of industrial attachments and reject students based on such perceptions. Therefore, stakeholders suggested that collaboration platforms be used to dismiss such misleading perceptions.

Collaborative platforms must be used to sensitise the industry that when they accept students on industrial attachment, it does not mean they will eventually employ them. They are simply helping the students to perfect the skills they have acquired. Industrial attachments give the students self-confidence because they get to solve real-life problems. (P7)

Collaboration platforms must be created so that institutions can sensitise the industry to the meaning of attachments and sell our products. (P2)

For me, my institution is surrounded by industries. However, very few industries near us know what our institution is offering. We need to interact. (PLC)

5.7 THE IMPORTANCE OF SUCCESSFUL COLLABORATION BETWEEN TEVET INSTITUTIONS AND INDUSTRY IN ENHANCING SKILLS DEVELOPMENT

The study established that successful collaboration is cardinal in enhancing the quality of skills development. Graduate employers emphasised that training and institutions will continue to have unresolved problems without successful collaboration. Sharing experiences on the importance of collaboration, one of the graduate employers noted:

There are times when we are the ones reaching out to training institutions for help. For example, recently, our ICT team was going through some significant maintenance work, and they pleaded with us to get some students on attachment, and we had to start searching for these students. We later realised that we took time to find these students because we did not have effective liaison links. (P6)

Despite emphasising the importance of collaboration in enhancing skills development, some employers accepted that they have not been making much effort to ensure that the institutions provide them with the much-needed quality graduates. They suggested that institutions must continuously engage the consumers of their product (graduates) to be aware of what is prevailing in the industry regarding needed skills. Similarly, institutional administrators also shared that their students would not be exposed to a meaningful, practical industry without collaboration.

Collaboration is essential. You cannot take away anything, and you cannot even over-emphasise its importance. Even as an industry, we need to do more as it impacts the quality of the graduates who come to work for us. (P4).

Unless we collaborate with the industry, our students will not be exposed to the meaningful, practical experience they need. (P2)

Based on their interactions with TEVET stakeholders in this study, all participants were asked to share their views on how collaboration can be utilised to improve the quality of TEVET graduates. The study revealed that through collaboration, the following problematic aspects of skills development could be improved or mitigated to acceptable levels:

- I. industrial experience;
- II. mismatch in training equipment;
- III. graduate employability;
- IV. pedagogy;
- V. resources; and
- VI. TEVET sensitisation.

5.7.1 Industrial experience

The study established that through collaboration, TEVET institutions can secure adequate and relevant places for industrial attachments for their students. Most companies were willing to work with institutions regarding industrial attachments, but there were no or limited interactions between the industry and training institutions. Graduate employers sympathised with students stating that it is very unfair to allow students to search for places for industrial attachments because students might not know which company must offer them the best practical experience. Additionally, some employers are unsure how to help these students, as some institutions do not give clear guidelines regarding the employer's role during the attachment. Sharing his experience, one of the graduate employers noted that:

We have seen some students leave the internship before completing the programme after discovering they have wasted their time. For instance, I

learnt very little during my internship because the company had very little to offer me. Most students have challenges with getting accepted by industries. However, if institutions come in and approach employers on behalf of students, they will be able to not only secure but also find internship places which will add value to their students' training. (P5)

Students were also of the view that institutions must continuously engage the industry if they are to have relevant industrial experience. Students noted that engaging the industry would give institutions relevant information regarding what the different companies offer and would be better positioned to advise their students on where they must go for their industrial attachments. Generally, all the students interviewed expressed concern with the work limitation they were exposed to during their industrial attachment and felt that this could have been avoided if institutions and companies had had relevant conversations before sending students for industrial attachments. The following sentiments were captured from students doing power electrical and bricklaying.

So, there is less exposure to various components that deal with the course. For instance, there is no exposure to domestic wiring. The major works deal with maintenance, so there are usually few or no instances where you build something from scratch. So, we work on something that has already been worked on, and all you do is assess the faults. (PSF)

As for me, I have learnt a lot, but it would be more beneficial if companies had explicit knowledge of what they must engage us in so that we do not go off from what we learnt from school. (P9)

5.7.2 Reduce the mismatch in training equipment

Noted throughout the conversations with all participants was a considerable mismatch between the training equipment found in training institutions and that found in the industry. Lecturers revealed that the failure of the students to perform as expected during industrial attachments stems from the kind of training they are exposed to. They noted that most learning is in the form of demonstrations as institutions lack sufficient

training materials and equipment to conduct the actual practice. Sharing his experience, a lecturer in plumbing and sheet metal lamented:

As we train the students, we do not permanently install things. We assemble and demolish for the next usage during the lessons. However, when they go into the field, they install permanent things. Hence, our students find it hard to spot and repair leakages. Hence, there is a mismatch between the materials we use to install things in the institution and the materials they use in the industry. (PLD)

Students suggested that the institutions must, through regular visits to the industry, check that they are training their students to operate equipment found in the industry. Graduate employers also noted that they could help improve graduates' quality by ensuring that institutions expose the students to more practical content by donating equipment or allowing students to have frequent industry visits during their training.

Through industry visits, institutions can check if they have the appropriate equipment in line with the curriculum. (PSI)

Through collaboration, the industry can help to ensure that institutions expose their learners to more practical content by ensuring that the training provided in these institutions is adequate and in line with what the industry needs. (P4)

5.7.3 Make graduates more employable

The data revealed that besides industry-driven practical skills, improving TEVET graduate employability requires imparting an excellent working culture to students. Institutional administrators were asked to state how confident they were with the quality of expertise they were producing. One administrator was not confident, while the other two were not very confident. However, they all noted that even though their graduates were employable, they still were not fully satisfying the industry's needs. The administrators further noted that they provide their students with basic skills which enable them to have a starting point in employment so they can perform to acceptable standards.

We only manage to provide our students with essential skills because we do not have most of the required equipment, which is modern, to train our students effectively. (P3)

Graduate employers also noted that TEVET graduates possess basic skills required for specific jobs but largely lack professionalism in their conduct. Employers bemoaned the poor work culture exhibited by some students or graduates once engaged. They noted that there is a need for systematic relationships between TEVET institutions and industry to improve graduate employability, citing that there is more that one needs to get employed other than the basic skills required to execute a specific job.

I am a product of a named TEVET institution, proving that these institutions are producing employable graduates. However, there must be systematic relationships between TEVET institutions and the industry to improve graduate employability (P5).

Participants were asked to state what aspects of a good work culture must be considered to improve graduate employability. The following aspects were compiled from lecturers and graduate employers who noted that other than basic skills, graduates must be:

- honest;
- precise;
- meticulous;
- respect customers' privacy;
- dress professionally;
- effective time managers;
- good with customer service;
- have verbal presentation skills;
- able to write reports and requisitions clearly;
- be teachable;
- be able to collaborate with others; and

- possess basic computer skills.

Some students do not know how to dress, keep time and how to take care of customers. Professional conduct and ethics must thus be included in the curriculum, and employers must ensure that students observe them during industrial attachment. This way, the industries and the institutions will ensure that they produce graduates with employable skills. (P4)

So now, here is a situation where we are training these students, but we have forgotten to impart the work culture. We should emphasise that our students must be honest, precise, perfectionists and respect customers' privacy. (PLB)

5.7.4 Improve pedagogy

The study established that, through collaboration, TEVET institutions and industry can jointly improve the pedagogic competence of TEVET lecturers. Lecturers noted that they lack exposure to what is prevailing in the industry. Lecturers complained of being confined to institutions as their timetables have no room for industry visitations. They noted that TEVETA has not developed programmes to advance either lecturers' academic or pedagogic competence. With most of the lecturers possessing craft certificates as the highest qualification in technical courses, the need for academic and pedagogic upgrades of lecturers was strongly emphasised by all lecturers. They further noted that jointly organising CPDs with industry will help them familiarise themselves with the ever-changing technologies and enable them to teach and train their students with confidence and minimal difficulties. Narrating his experience, a lecturer in plumbing and sheet metal explained the difficulties lecturers have in teaching every time new content is introduced in the syllabus:

A new syllabus will be introduced, and there will be programmes to familiarise lecturers with the new programme content or pedagogy. However, there is no orientation for the lecturers. Lecturers receive the programme and implement it in any way possible. The challenge is that if you are blank on a particular topic, that topic will not be taught. (PLE)

Another lecturer in power electrical shared his experience with the new equipment received by public TEVET institutions through the SDF. According to him, his institution and many other institutions do not have competent lecturers to operate the equipment. Hence training using the new equipment has not yet commenced.

Last year, we were privileged to receive some equipment, but no lecturer was competent to operate the equipment. We expected to be sent for refresher courses or to receive some experts to orient us on how to use the machine, but that did not happen. Moreover, the equipment is now being kept like they are decorations. Meanwhile, they are meant for training. (PLD)

Lecturers complained of being neglected and confined to their institutions throughout the year. They noted that they are confined to their institutions, whether teaching or not, from the morning when they report for work until the evening when the industries are also closed. As a result, there was no benchmarking.

To ensure pedagogic competence, lecturers and institutional administrators thus suggested that meaningful interactions with the industry must be established. They noted that with meaningful collaboration, the industry experts would be approached to train lecturers on how to operate new technologies and equipment at training institutions. Industries would also be approached to allow lecturers to have frequent industry visits to acquaint themselves with what is prevailing in the industry and be able to train their students confidently and professionally. Lecturers thus suggested that institutions must revise their timetables to accommodate industry visits and CPDs.

I believe the best teachers are those who remain students for their entire life. There is so much we can learn from these industries as lecturers. For example, if lecturers have taught for two hours in the morning, they could be allowed to spend the afternoon at industry to acquaint themselves with what is currently available on the ground. (PLC)

5.7.5 Help to save resources

The study revealed that collaboration between industry and institutions or TEVETA could lead to saving resources by the parties involved. Graduate employers, institutional administrators and the standards officer noted that resources could be

saved through collaboration as parties can leverage each other's strengths and capacities to advance their different agendas. They noted that it would be easy for them to call each other for help if the liaison links were strong. Explaining his experience with instances when TEVETA has saved resources by soliciting help from stakeholders, the standards officer noted:

If we fail to work with industry, we will work in silos. We will be duplicating our work. Currently, the registration of students for secondary school exams is underway, and we have delegated that task to the Examinations Council of Zambia (ECZ). As they register students for the academic exam, they help us capture the students sitting for TEVET exams. We discovered that by working with the provincial education officers and their standards officers, we might not even need to inspect the schools. If we guide them on what we require to be found in the workshops during inspections, then they can inspect on our behalf. That way, we get to save resources. (P7)

5.7.6 Change people's mindset about TEVET programmes

One aspect that came out strongly regarding courses such as bricklaying, plastering, carpentry and joinery was the inferiority complex attached to the courses. Lecturers noted that these and other TEVET courses had had very low enrolments because of the inferiority complex, which stems from a lack of sensitisation of the aim of TEVET, failure to secure high-paying jobs and a poor marketing strategy by TEVETA. The participants thus suggested that collaboration platforms must be created where TEVETA and or TEVET institution can sensitise the stakeholders on the objectives of TEVET concerning employment and advertise the courses they are offering. They noted that there is a need for a mindset change regarding TEVET courses by all stakeholders. The following comments were captured from a lecturer in carpentry and joinery and an institutional administrator:

What can be done in carpentry is to attach relevance to the course by sensitising the people about the value of the skills. If we change the mindset, we shall change the quality of skills development and avoid over-reliance on foreign furniture. Each time I ask my students why they enrolled in the

course, most of them indicate that it is just a by-the-way thing because of bursaries. The mindset is very negative. (PLB)

In our economic dispensation as a country, very few industries can absorb our graduates in employment. There is a need to find ways to make learners understand that they are trained to be entrepreneurs and future employers and not job seekers. We need a mindset change. (P2)

5.8 CONCLUSION

The study explored the role of collaboration between Zambian TEVET institutions and the industry in enhancing the quality of skills development. Collaborative activities, programmes and policies were explored to understand the nature of the existing interactions. The study revealed that most collaborative activities were held through memoranda of understanding between training institutions and the industry. However, these MOUs were few, and stakeholders were not satisfied with the quality of interactions as they lacked clearly defined guidelines and benefits. The study further identified existing programmes and policies to improve stakeholder satisfaction and the challenges they encounter. Most participants indicated that they were partially satisfied with the quality of graduates from TEVET institutions owing to the mismatch in equipment found in the industry. TEVET graduates were said to have limited practical skills. Participants suggested that using a portion of the Skills Development Fund (SDF), TEVETA must ensure successful collaboration between TEVET institutions and industry by sponsoring some of the collaborative activities identified in the study. The study established that without meaningful or successful collaboration with industry, it would be difficult for TEVET institutions to produce the desired quality of graduates with industry-driven skills.

The participants' experiences indicated they knew the possible solutions to their challenges. However, they failed to actualise the solutions because they lacked solid linkages and platforms to air their concerns. At the beginning of the research, most participants showed a lack of understanding of the concept of collaboration as was defined by the study, but as the discussions progressed, participants were able to share their experiences in line with the concept. Participants also shifted their

approach to questions from being defensive and blaming other stakeholders to owning their contribution to making collaboration between them unsuccessful.

By repeating questions asked at the start of the interview midway or towards the end of the interviews, participants showed a deeper understanding of collaboration between stakeholders. They could share their experiences on questions they had initially indicated they could not understand. Studying the lived experiences and perceptions of TEVET stakeholders with collaboration thus revealed that people consistently devote themselves to what they expect to benefit. This study's results, therefore, are consistent with the social exchange theory, which was utilised as a guide for research.

The next chapter presents a discussion of the findings presented in this chapter.

CHAPTER 6

DISCUSSION OF FINDINGS

6.1 INTRODUCTION

Chapter 5 presented the data according to the themes that were identified. In this chapter I discuss the findings of the study. The discussion considers the literature presented in Chapter 2 and the theoretical and conceptual framework of the study (Chapter 3).

6.2 RECAPITULATION OF THE STUDY

The purpose of this study was to explore the role of collaboration between the Zambian TEVET institutions and the industry in enhancing skills development.

The following specific aims guided the study:

- To identify and describe the existing collaborative activities between TEVET institutions and industry.
- To understand the influence of existing collaborative activities on the quality of skills acquired by the students.
- To analyse the influence of existing policies on skills development in respect of collaboration between TEVET institutions and industry.
- To explore the importance of successful collaboration between TEVET institutions and industry in enhancing skills development.

The main research question that guided this study was:

What is the main role of collaboration between the Zambian TEVET institutions and the industry in enhancing skills development?

- a. What are the existing collaborative activities between TEVET institutions and industry?
- b. How do the existing collaborative activities influence the quality of skills acquired by the students?
- c. How does existing policy on skills development influence collaborations between TEVET institutions and industry?

d. Why is successful collaboration between TEVET institutions and industry important in enhancing skills development?

The study explored the nature of the interactions between TEVET institutions and industry by identifying and interrogating collaborative activities, programmes, and policies. The study revealed that stakeholders were not satisfied with the quality of interactions as they were limited and lacked clearly defined guidelines and benefits. The study further identified existing programmes and policies designed by the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) to improve stakeholder satisfaction. Most participants indicated that collaboration between training institutions and industry was not meaningful enough to enhance the quality of TEVET institutions' graduates. The gap between the equipment in the institutions and the industry was still vast. Participants suggested that TEVETA must enhance collaboration between training institutions and graduate employers. TEVETA must ensure that resources from the Skills Development Fund and Constituency Development Fund are channelled towards collaborative activities to improve graduates' quality. The study established that meaningful or successful collaboration with industry is necessary to ensure that TEVET institutions produce the desired quality of graduates with industry-driven skills. The following themes in Table 6.1 were identified and will form the structure of this chapter.

	THEME
	Collaborative activities between TEVET institutions and industry
	Stakeholders' perceptions of the quality of TEVET graduates
	Programmes aimed at improving stakeholder satisfaction

	Challenges hindering stakeholder satisfaction
	Existing policies guiding collaboration between TEVET institutions and industry
	Stakeholders' proposals and recommendations
	Importance of collaboration in enhancing the quality of TEVET skills development

Table 6.1: Understanding collaboration between TEVET institutions and industry

6.3 OBJECTIVE 1: EXISTING COLLABORATIVE ACTIVITIES BETWEEN TEVET INSTITUTIONS AND INDUSTRY

In this study collaborative activities refer to the activities aimed at improving the quality of skills development, which TEVET stakeholders jointly execute. The data revealed that most collaborative activities are arranged through various MOUs between training institutions and the industry. However, stakeholders bemoaned the lack of sufficient guidelines, commitment and clear benefits surrounding the activities. These results are similar to a study on collaboration by Raihan (2014) which underscored the importance of clearly stipulated policies on TEVET and industry linkages. Raihan's (2014) study described the collaboration types, collaboration-building methods and specific roles of skill providers and companies as crucial factors in developing successful collaborations. Similarly, this study underscores the importance of clearly stipulated policies and benefits to ensure sufficient stakeholder commitment during the partnership.

According to Arinaitwe (2021), there is a need for collaborations between training institutions and the industry to be based on signed memoranda of understanding (MOUs) if they have to be effective. However, despite signing many MOUs aimed at improving the quality of skills development with various industry sectors, participating institutions were still struggling to maintain meaningful collaborations owing to a lack

of commitment from the companies involved. Commitment is thus a vital factor if collaboration partnerships are to be successful. It is easy to sign MOUs but challenging to remain committed to the promises indicated in the MOUs. Therefore, relevant authorities must develop policies on collaboration to ensure commitment by all parties in the partnership. Similarly, a study by Scott and Boyd (2023) emphasises that successful collaboration requires the development of collaboration methods to foster a sense of joint goal commitment. Doing so will ensure sustained determination to succeed despite the barriers that are encountered by stakeholders.

The data revealed that most MOUs signed between TEVET institutions and the industry were usually unsuccessful because stakeholders were not satisfied with the benefits of the collaboration. For instance, while graduate employers complained of being taxed twice, some institutional administrators complained of being the only ones sacrificing their resources in the partnership. This finding is consistent with the social exchange theory (SET), which postulates that actors in an exchange do so in the belief that the deal would benefit all of them (Homans, 1974). Thus, stakeholders were unwilling to continue collaborating when the cost of a partnership outweighed the benefits. As a result, stakeholders suggested that for collaboration to succeed, there must be well-outlined benefits or incentives to motivate stakeholders to develop and sustain the partnerships. Additionally, stakeholders must ensure that the outlined benefits are stipulated and enjoyed by targeted beneficiaries.

The engagement levels in collaborative activities varied due to the different geographical locations and economic activities. As such, there must be deliberate policies and actions by TEVETA to ensure that all institutions have equal opportunities to sign various MOUs to enhance skills development. It is crucial for the TEVET providers, industries, communities and the government to collaborate to achieve economic growth, reduce poverty and unemployment, and change the landscape of industry practice towards skills development (Albashiry et al., 2015; Ismail et al., 2018; Papier et al., 2017; Pongo & Obinnim, 2015). Collaborative activities are also crucial in bridging the skills gap aimed at training TEVET graduates who will be equipped with saleable skills for employment and self-reliance (Oviawe et al., 2017).

The study revealed twelve joint exercises conducted through various MOUs signed by TEVET institutions or TEVETA and the industry, as illustrated in Figure 6.1. Each of these collaborative activities are discussed in the following sub-sections.



Figure 6.1 Collaborative activities between TEVET institutions and industry

6.3.1 Industrial attachments

Collaboration between training institutions and industries with diverse joint initiatives is necessary to bridge the gap between the supply of skills and the demand for skills. Such initiatives include industrial attachment, workplace learning, internship and traineeship programs, and curriculum updating (Siddiky & Uh, 2020). However, stakeholders who participated in this study bemoaned the poor organisation of collaborative activities between training institutions and industry. The data suggested that ensuring stakeholder trust in the credibility of the collaborations is fundamental in

sustaining the joint exercises. Also, maintaining collaborative practices require that activities are very well organised. For instance, all stakeholders bemoaned the organisation and administration of students' industrial attachments. This study revealed that all stakeholders were negatively affected by the poor organisation of these industrial attachments. For instance, on the one hand, students experienced difficulties securing meaningful places for their industrial attachments, while on the other hand, companies were overwhelmed by the number of students seeking internships and institutions were forced to graduate students who have not experienced industrial attachment. Confirming the psychological effect of poorly organised attachment on the students, one of the graduate employers noted:

We have seen some students leave the internship before completing the programme after discovering they wasted time in our company. (P5)

These findings were similar to a South African study that identified dissatisfaction with the programs offered, inadequate student induction and inadequate student work placement as the key reasons behind the high attrition rate in technical and vocational colleges (Zulu & Mutereko, 2020). In South Africa, just as in many other sub-Saharan African countries, TEVET colleges have been criticised by the industry for the lack of practical training that supports theoretical study at the college, resulting in work placements where learners require extensive supervision and mentoring (Papier, 2017). Conversely, TEVET colleges in my study criticised some graduate employers for not accommodating their students who are seeking industrial attachments. As a result, participating TEVET stakeholders suggested that institutions must directly engage industry when organising industrial attachments. The suggestion implies that jointly organising these industrial attachments is crucial in resolving most of the challenges regarding student replacements. The study identified five main concerns regarding student placements which can be resolved through meaningful interactions between training institutions and industry. These are:

- a. Securing places for industrial attachments;
- b. Choice of a company for industrial attachments;
- c. Logistical challenges or incentives;
- d. Duration of industrial attachments; and
- e. Employers' knowledge of industrial attachments.

6.3.1.1 Securing places for industrial attachments

Securing a place for industrial attachment is a crucial exercise for a TEVET student. The activity is vital because the attachment site's quality will determine the exposure the student will get during the industrial attachment. Unfortunately, securing attachment places is challenging in many African countries (Kintu et al., 2019; Mulenga & Chileshe, 2020; Tshabalala & Ncube, 2014). A study in Ghana revealed two conflicting factors hindering some students from experiencing industrial attachments. These are the country's limited number of industries versus the high number of students seeking places for industrial attachment (Anane, 2013). Unfortunately, the findings of my study are consistent with Anane's (2013) study. Similar findings were revealed by a study conducted in Zambia by Mulenga and Chileshe (2020), who noted that industries were not meeting the demands of TEVET institutions regarding industrial attachments.

Another study in Nigeria noted that securing a placement in an organisation with modern equipment and facilities is arduous. As a result, many students are forced to settle for organisations that are not well equipped for the training (Ogbuanya et al., 2018). Similar to the challenges regarding TEVET industrial attachments mentioned in these and other studies, this study found that under the current arrangement, securing places for industrial attachments is surrounded by the following concerns:

- The process is long and frustrating for students;
- Employers often misunderstand the 'industrial attachment' concept as a job offer;
- Employers are unwilling to take up interns as interns are seen as an additional labour cost to employers;
- Employers lack adequate space to accommodate more interns; and
- Employers lack knowledge of the skill set that students require from the industry.

The above concerns suggest a lack of effective communication between training institutions and the industry. Therefore, attending to the above concerns requires institutions to collaborate effectively with the industry. Most of the above situations can be minimised or solved through effective collaboration, as discussed in Section 6.4.

6.3.1.2 Choice of a company for industrial attachments

Choosing a company for industrial attachment is as crucial as securing a place for industrial attachment. It must therefore be handled by personnel who are knowledgeable about the curriculum, industry expertise, and the equipment students are expected to use. The availability of training equipment and industry experts in a company plays a significant role in influencing skills acquisition by students preparing for the world of work (Anindo, Mugambi & Matula, 2016). However, this study established that students are tasked with choosing and securing places for industrial attachment themselves. As a result, students often select companies where they are exposed to similar tasks throughout the attachment period or have inadequate equipment and expertise to help them during the attachment. While some students benefit significantly from the attachments from the various practical experiences, other students merely waste their time at some companies as they are not exposed to appropriate developmental opportunities.

Institutions, too, are facing a challenge in finding suitable industries for student placements (Raihan, 2014). Technologies keep changing almost daily, making it difficult for training institutions to acquire the necessary machinery and equipment to train their students (William, 2015). The failure of training institutions to acquire the latest machinery and equipment thus makes industrial attachments a crucial training phase. As indicated earlier, students are expected to secure their own attachments. This arrangement was considered unfair by TEVET stakeholders, who argued that students have inadequate knowledge about which companies would be relevant to their training. Stakeholders' views indicate that wrong choices for industrial attachments negatively affect the performance of graduates once they are employed. Such graduates lack self-esteem because they are often unable to professionally execute assignments after formal training. Furthermore, failure to benefit from the training can create resistance among students to register for industry attachments as they perceive it as a waste of time. As such, a place for industrial attachment must be carefully chosen.

6.3.1.3 Logistical challenges or incentives

Students prefer living near their homes during the industrial attachment period to reduce living costs. However, suitable industries may not be available at these locations (Raihan, 2014). Students from rural areas are the most affected as they have to travel long distances to central business districts where they can access places for attachment. These students have greater financial challenges which make it more likely that they will not successfully complete their training. This study established that there is a need for students to be supported by institutions regarding logistics in terms of transport, accommodation, start-up tools and food. The findings of this study are consistent with the findings of Ogbuanya et al. (2018), who recommended that government should encourage TEVET industrial attachments by funding such programmes adequately. Students' and lecturers' logistical challenges can be resolved if adequately financed.

6.3.1.4 Duration of industrial attachments

A study by Mulenga and Chileshe (2020) noted that the length of industrial attachments was often inadequate. The TEVET curriculum should emphasise the inculcation of work environment habits by encouraging students to do extended semester holiday placements (Oviawe et al., 2017). In this study, student participants who were happy with their choice of attachment places explained that they had been exposed to more practical work during internships. Thus, they suggested that the length of attachments must be increased. Data indicated the need to enhance the relevance of industrial attachments by improving the length of the attachment period. Increasing the period for industrial attachments is vital to ensure that students receive adequate exposure to the workplace environment and have sufficient time to perfect their skills.

6.3.1.5 Employers' knowledge of industrial attachments

For effective collaboration between training institutions and industry to take place, it is important that they understand each other's needs and identify how to meet the needs (Singh & Tolessa, 2019). The participating students emphasised the need to sensitise employers who take on interns regarding supervision, assessment of student

performance, report writing and completing necessary documents. The students' experiences seem to indicate that employers lacked adequate knowledge regarding industrial attachments. Students suggested that institutions must compile a list of aspects that employers must concentrate on during industrial attachments in addition to the employer's core business. Without sufficient knowledge of what industrial attachments are and their relevance to students, employers cannot effectively help students.

The data also revealed the need to sensitise employers who host interns regarding supervision, assessments and report writing. This finding is consistent with a study by Arinaitwe (2021) that emphasised the need for instituting a policy framework encouraging workplace involvement in VET programmes. Arinaitwe (2021) also found the need to improve communication between industry partners and TEVET institutions by establishing focal persons who would oversee the provision of feedback to collaborating partners. Similarly, this study highlights the need to improve communication by ensuring that workplace involvement in TEVET is organised using well-communicated knowledge regarding supervision, assessments and report writing by industry student supervisors. Omotayo (2015) also recognised the role of knowledge in sustaining collaborations and defined knowledge as the insight, understanding, and practical know-how that people possess. Therefore, knowledge is a cardinal ingredient for successful collaborations, empowering members to make sound decisions and act knowledgeably.

Lecturers must compile a list of expected skills that require development, which will guide employers who take in students on industrial attachment. Despite retraining not being part of the employers' role, employers need to know the students' needs in terms of skills and should be able to check whether their company is capable of helping that student or not. It might be easy for the employers to support the students during the industrial attachment meaningfully. The industrial attachment programme is vital to students because it makes students appreciate the real world of work and practice what they learnt in theory at their college (Kintu et al., 2019). While other studies contend that lack of job competencies among graduates fundamentally emanates from poor training at primary and secondary levels resulting from incompetent teachers and inadequate facilities (Munishi, 2016), the data of this study seem to indicate that the

effectiveness of practical industrial attachments can be enhanced through good communication to ensure that industry partners are well aware of the required skills students need to acquire.

Additionally, the data revealed that while industry partners bemoaned the lack of space to accommodate large numbers of students applying to their companies, students, lecturers, and institutional administrators felt that companies were not willing to accommodate students for internships because they were afraid of additional costs of managing the students during the industrial attachment. Student participants indicated that companies treated them like they were looking for employment, not as unpaid industrial attachments. This conflict in thinking implies a lack of effective communication between TEVET institutions and the industry, exposing knowledge as a factor which determines successful collaborations.

The frequency of communication is also vital to create a shared understanding (Rybníček & Königsgruber, 2019). In addition, Canhoto et al. (2016) suggest that trust is essential for the success of collaborative projects. Trust development should be supported by working towards small wins and by ensuring that role players meet regularly. This finding is consistent with findings by Alsharo, Gregg and Ramirez (2017) who suggested that regular knowledge sharing will positively influence trust and collaboration between TEVET institutions and their industry partners.

This study revealed that some employers had limited knowledge of how they are expected to help students with industrial attachment, as students reported insufficient guidelines for their employers from the institutions. Owing to these inadequate guidelines, students bemoaned their supervisors' failure to write conclusive reports at the end of the industrial attachment. Industry representatives also confirmed that TEVET institutions do not provide a skills checklist which employers can use to help and assess students during and after the industrial attachment. These findings highlight the importance of effective communication between training institutions and the industry. Therefore, administrative responsibilities of the training institutions and industry partners who are hosting internships must be well-communicated for internships to succeed (Sides & Mrvica, 2017).

6.3.2 Programme funding

Failure to procure required training materials and equipment in TEVET has been associated with poor funding in most programmes (Ayonmike et al., 2015; Ministry of Higher Education, 2021; Ministry of National Development Planning, 2017; Ogbunaya & Udoudo, 2015). Similar to findings by Oketch (2015) and Osidipe (2019), this study also underscores the importance of sufficient funding to procure up-to-date training materials and equipment. Surprisingly, while graduate employers were interviewed they denied having funded TEVET programmes in the recent past due to financial challenges, institutional administrators acknowledged receiving funds from employers, including public and private companies, non-governmental organisations and faith-based organisations. However, they stated that the funding was usually aimed at a few specific programmes. This implies that the liaison links between TEVET institutions and industry are not very efficient. The findings also indicated a lack of information dissemination from the top management to other subordinate administrators within the companies interviewed. Through better communication between training institutions and industry, stakeholders can share critical information on how TEVET programmes can be funded, as well as the priority areas in need of funding. In so doing, TEVET institutions and industry partners can better collaborate to encourage potential funders to support under-funded programmes.

6.3.3 Scholarships

It is essential to increase enrolment in the TEVET sector and raise the overall quality of training being offered since technical and vocational training has become crucial for industries and the economy (Ismail & Abiddin, 2014). Literature indicates that one of the strategies to increase TEVET enrolment in Zambia is to promote the involvement of various stakeholders in training provision through the provision of scholarships or bursary schemes and encouraging distance learning (Eicker et al., 2017; Ministry of Higher Education, 2020). This study confirms the implementation of these scholarships, and the data indicated that TEVET institutions enjoy many scholarships offered by TEVETA and other non-governmental and faith-based organisations. Furthermore, the participating institutions reported that scholarship funds were cushioning TEVET institutions' financial needs as the funds were directed towards

administrative and training costs, thereby improving the quality of training in one way or another.

6.3.4 Improved academic and pedagogic competence

The data indicated that TEVET institutions' failure to attract and maintain qualified lecturers is twofold. Firstly, TEVET institutions in Zambia have failed to implement the offering of higher TEVET qualifications successfully. As a result, there is a limited pool of qualified lecturers. The challenge is more prominent in construction courses such as carpentry, bricklaying and plastering, where most lecturers and trainers are craft certificate holders. As a result, the urgency to upskill lecturers academically and pedagogically cannot be overemphasised (Kasman et al., 2018).

Secondly, public TEVET institutions often lose their qualified training staff to private institutions and the industry that offer better remuneration. Effective programmes to improve lecturers' academic and pedagogic competencies must be ongoing, job-embedded, and relevant to individual teachers' needs (Martin & Thomson, 2018). Similarly, participants in this study suggested that improving lecturers' academic and pedagogic competencies should be a continuous exercise to cushion institutions' recruitment and retention challenges.

The benefits issue is vital in TEVET institutions' failure to retain qualified lecturers. When related to the social exchange theory (SET), the decision by lecturers to leave public TEVET institutions for private colleges and other sectors in the industry stems from their perceived mistreatment by public institutions. SET describes the behavioural interactions between two or more individuals and how these behavioural interactions reinforce the other's behaviour (Homans, 1974). TEVETA must thus find means of continuously improving the lecturers' qualifications and ensure that lecturers are given deserving benefits in terms of emoluments and incentives to improve lecturer retention.

This study also identified similar challenges regarding progression routes for those seeking to further their studies in TEVET, with research conducted to compare experiences in the education and training of TEVET teachers in South Africa, Egypt, Ghana, Tanzania, and Cameroon. The study revealed that there are no progression

routes that stimulate the professional development of teachers, including industry experience and obtaining new skills (Axmann et al., 2015; Grijpstra & Papier, 2015; Lloyd & Payne, 2012). Reducing the demand for qualified lecturers in TEVET institutions is impossible without making progression routes available. Universities must, therefore, develop advanced programmes to train TEVET lecturers and trainers to ensure a qualified pool of training staff.

The data further indicated that the failure to commence with newly developed diploma programmes in construction was due to a lack of qualified lecturers in TEVET institutions. Institutions had continued to engage industry specialists with or without pedagogical training in TEVET students' teaching and training, as noted in the TEVET 2020 policy document (Ministry of Higher Education, 2020). The continued engagement of training staff without the required qualifications illuminates an urgent need to upskill lecturers in TEVET institutions. Similarly, Zinn et al. (2019) revealed that South Africa, Egypt, Ghana, Tanzania and Ethiopia had recognised the importance of highly qualified teachers and trainees at vocational colleges and had declared their intention to institute appropriate reforms. These findings suggest that there must be deliberate policies aimed at upskilling vocational and technical teachers and trainees in several African countries.

Despite not having deliberate actions aimed at improving the academic and pedagogic competence of TEVET lecturers, companies were willing to offer industrial attachments to lecturers. All participating stakeholders supported reintroducing industrial attachments and stated that TEVETA must allocate part of the SDF towards logistics to facilitate these attachments. The data indicated that TEVETA, through the SDF, had already embarked on the training of lecturers in disadvantaged areas, more specifically pertaining to the management of examinations, and had plans to upskill the lecturers through the same funds.

Finally, the findings on improving the lecturers' academic and pedagogic expenses indicated that companies are willing to collaborate with institutions on lecturers' industrial attachments. However, this acceptance was on condition that institutions must handle all the costs related to hosting the lecturers at their companies. The findings confirm the social exchange view that people become involved in an

exchange where costs are minimal. This corresponds with Blau's (2017) view that the social exchange theory (SET) values selfishness over selflessness.

6.3.5 Improved work experience

Hassan et al. (2021) noted that improving the TEVET sector to respond to the ever-changing labour demands will require that the industry, researchers, TEVET policy makers, TEVET training providers, and donors/funding agencies focus on integrating technologies demanded by the industry into TEVET. Integration of prevailing technologies is vital in improving the students' experience. Furthermore, the integration helps to improve the lecturers' work experience. However, the data indicated that due to over-enrolment in some courses, imparting skills to trainees was challenging as workspaces and relevant training materials are inadequate. Consequently, participants in this study emphasised the need to improve the lecturers' work experience by providing adequate and up-to-date training materials and workspaces.

Participants blamed the over-enrolment on the government's failure to fund institutions adequately, forcing college boards to ask institutions to over-enrol to raise funds towards salaries and other running costs. This step by the college boards to over-enrol and compromise the quality of training justifies the criticism in the social exchange theory (SET) that people do not always make rational decisions. It is also aligned to SET's utilitarianism perspective which holds that people look forward to and value future rewards before deciding to collaborate (Heath, 1976). In this case, the reward of retaining the lecturers by managing to pay their salaries and raising funds for the colleges' running costs is seen as a worthwhile benefit by the college boards.

6.3.6 Continuing professional development programmes (CPDs)

CPDs are crucial to improving student outcomes as they enable teaching staff to update their pedagogical knowledge and equip them to teach new or revised curricula (Ismail, Hassan & Rosli, 2017; Rawkins, 2021). Additionally, Axmann et al. (2015) argue that the capacity of TEVET systems to provide high-quality and relevant training depends mainly on the quality of its lecturers and by extension, on the quality of their teacher training systems. Similar challenges regarding CPDs were found in other

studies and also revealed by my study are: (a) the absence of structures for CPDs in training institutions; (b) time constraints of teachers; (c) institutional restrictions which confine lecturers to institutions throughout the academic year; (d) lack of resources to run CPDs by institutions; (e) lack of industry involvement in CPDs; and (f) the struggle of institutions to recruit and retain highly skilled and competent TEVET lecturers (Arinaitwe, 2021; Wariyo, 2018; Zinn et al., 2019). To resolve these challenges, participants in this study suggested that:

- a. Industrial attachments for lecturers must be reintroduced and must be mandatory;
- b. The lecturers' skills must be reviewed each time the curriculum is revised;
- c. Training must be continuous to solve gaps created by retention problems; and
- d. Lecturers urgently have to be upskilled locally to enable lecturers to acquire contextualised training to help respond to the local skill needs.

Despite the Ministry of National Development Planning (2017) and the Ministry of Higher Education (2020) confirming that there has been an improvement in enhancing the quality and relevance of training through partnering with various sectors to upgrade lecturer qualifications, these partnerships are still not very effective. The above suggestions by participants indicate that through collaboration with industry, lecturers can be helped to:

- a. Acquaint themselves with what is prevailing in the industry;
- b. Access suitable opportunities for exposure to current technologies;
- c. Improve pedagogic competencies of lecturers;
- d. Reduce the mismatch between what is taught in the institutions and what graduates are exposed to in the industry;
- e. Consciously review lecturers' skills in line with the prevailing curriculum;
- f. Build capacity for lecturers to operate the newly procured advanced equipment by TEVETA through the SDF; and
- g. Gain confidence in lecturing and transfer of skills.

Through collaboration initiatives, professionals in the industry must be allowed to become involved in these CPDs. The participating standards officer suggested that

colleges should submit to TEVETA skill gaps where lecturers require upskilling and suggest industries to which they can become attached to improve their competencies as well as expose them to the latest developments in their field. In this regard, Wihtol (2019) suggested that there is a need to fill in the information gap on needed skills through cooperation with the labour market or industry. Knowing the skills gaps is vital in securing meaningful industrial attachments for lecturers.

With Zambia facing the challenge of having few academically and professionally qualified lecturers as stipulated in the TEVET 2020 policy document (Ministry of Higher Education, 2020), and as confirmed by this study, appropriate and meaningful CPDs are an urgent priority. Through collaboration with industry, TEVET institutions can facilitate the successful implementation of these CPDs by leveraging what both parties have to offer. This will allow collaboration benefits for all stakeholders to be maximised. The industry will be able to employ graduates taught by qualified lecturers, lecturers will be motivated and confidently impart skills to their students, and institutions will be able to graduate employable graduates.

Participants further recommended that CPDs should be mandatory and financed by TEVETA through the SDF. This recommendation confirms that CPDs are generally viewed as every educator's or trainer's responsibility if attaining practical skills development is to be achieved. Other studies reviewed in this study noted similar findings on the need to make CPDs mandatory (Chakroun, 2019; Malik & Venkatraman, 2017; Remington, 2018; Wariyo, 2018). Chakroun explained:

In some countries, continuing personal development is a teachers' right, sometimes covered by collective agreements (Italy, Malta, the Netherlands, Romania, Sweden); in others, it is an obligation (Bulgaria, Cyprus, Latvia, Hungary, Portugal, UK) or part of the school development and quality assurance processes (Bulgaria, Italy, Poland, Portugal). In Spain and Slovakia, attending continuing personal development programmes translates into wage bonuses for teachers. (Chakroun, 2019: 371)

6.3.7 Sponsor employees for further training

As noted in the conceptual framework of this study, collaborations between vocational institutions and industry are cardinal in reducing the mismatch of industry needs among graduates (Ramli & Abd Wahid, 2021). Sponsoring employees for further training does not only motivate the employees to perform their duties but also increases productivity (Mgonja, 2017). Through further collaborative training, employees are given specialised skills to become more relevant to their companies' skill needs. The data suggested that there are companies who collaborated with TEVET institutions by sponsoring their employees to undergo various training programmes at public TEVET institutions. However, some companies stopped the practice because it proved too costly, and because many employees did not stick to the agreed terms and conditions. While some employees left for greener pastures, others took too long to graduate as they kept repeating the failed courses. This finding shows that successful collaboration depends on how costs can be minimised as participants are inclined to desert the collaboration once they begin to incur unforeseen costs. They seek to obtain more outcomes they value (Molm, 2003). In this case, failure to retain employees and continued payments for repeated courses is a cost that companies are not willing to continue incurring; hence, they will cancel MOUs signed with training institutions regarding further training.

6.3.8 Curriculum development and review

Collaborations between training institutions and industry are vital in ensuring that students are given proper guidance and that curricula scopes, content and standards are relevant to the requirements of the employers (Usman & Tasmin, 2015). The data of this study showed that TEVET curriculum development and review are generally done in collaboration with the industry. However, some of the participants complained about the calibre of participants during such exercises. Some participants complained of being side-lined when panellists for curriculum renewal are selected. The data therefore suggested that if stakeholders are to be confident with the results of such a curriculum renewal exercise, broader participation in such processes should be encouraged. Lecturers are the implementors of the curriculum; therefore, their

acceptance of the process and confidence in the final curriculum is crucial in the practical skills development process.

6.3.9 Supply of teaching and learning materials

The data indicated that collaborations between TEVET institutions and industry regarding the supply of teaching and learning materials were not clearly defined and were rarely practised. Through lobbying, industry does supply obsolete or used equipment to TEVET institutions for training. However, through the skills development fund (SDF), TEVETA has managed to procure modern equipment and distributed them to various training institutions. This suggests that even though the industry is not directly supplying teaching and learning materials to institutions, they do so through the SDF. The supply of only used or obsolete equipment to institutions by companies also indicates how collaborating actors are steady in minimising costs whilst maximising benefits. Unwillingness to supply new equipment is a refusal to be taxed twice as such equipment was to be procured through the SDF to which companies were contributors. Double taxation was a word that all participants frequently referred to as a justification for industry's refusal to collaborate with TEVET institutions on aspects requiring funding.

In this regard, there is a need to note Homans' (1974) value and distributive justice propositions. The value proposition is that the more valuable the result of an action is, the more likely that action is to be performed. Furthermore, the distributive justice proposition is that people will become angry and aggressive when they do not receive what they anticipate or what they perceive as a fair rate of return. Institutions must therefore find means to compensate the industry partners for the equipment they donate, for instance, by offering a service or labour. In addition, the SDF must ensure that institutions are well-equipped with training equipment to avoid overburdening industries with requests for equipment. It is also essential for training institutions to recognise that the companies' core business is to make profits and not to offer training. That way, more companies will be motivated to pay the SDL.

6.3.10 Employment opportunities

For TEVET to enable learners to catch up with a fast-growing technological world and create jobs for sustainable living, it must be strengthened through public-private partnerships (PPP) because the government cannot single-handedly shoulder this enormous task (Oviawe, 2018). While all the participating graduate employers admitted that they employ graduates from TEVET institutions, institutional administrators noted that it is challenging for them to secure employment on behalf of their students. At the same time, the data seem to indicate that it is challenging for TEVET graduates to come up with income-generating activities. Most graduates lack start-up kits to enable them to establish small or medium enterprises (SMEs). Hence, there is a need to strengthen collaborations between training institutions and the industry (Neroorkar & Gopinath, 2020) to broaden the scope of employment opportunities for TEVET graduates. Participating institutions also indicated that through collaboration with industry, some companies approach them to recruit graduating students to be employed in their companies. This implies that these companies are satisfied with the graduates they receive from these institutions and can go back and ask for more whenever they are in need. This action confirms the reinforcement theories under SET, which argue that actors look backwards to experiences that have been rewarding to them in the past before they commit to a collaboration (Heath, 1976).

6.3.11 Facility or infrastructure improvement

The quality of infrastructure is one of the criteria used to grade the quality of institutions by TEVETA (Ministry of Higher Education, 2020). The data indicated that infrastructure improvement at public TEVET institutions is crucial, as some institutions were not initially built as training institutions. For instance, institutions that participated in this study included a former refugee camp and a former automobile garage. As such, they need significant renovations to be considered suitable for training. Further, the data seem to indicate that industry is generally unwilling to collaborate with training institutions to improve institutional infrastructure or facilities as they questioned their benefits for improving institutional infrastructure. This correlates with Blau's (2017) proposition that the voluntary actions of individuals are motivated by the potential

returns such actions may bring. Institutions must therefore develop incentives that can be traded for help in infrastructure development if collaboration in this area are to be sustained.

6.3.12 Assessment of training

While it was established that employers in industry could give feedback and some institutions were happy with the quality of feedback, the data revealed the need to sensitise the industry on assessing students on industrial attachments. Institutions must clearly stipulate to the employers the skills set that students need to develop. This way, employers will be able to provide relevant assessments. Even though this study emphasised core TEVET skills, as stated in the literature review, the data indicate that generic skills and personal attributes, as described by Ismail and Mohammed (2015), are crucial in improving graduate employability. For example, participating graduate employers suggested that students must be taught professional conduct, dress code, time management, customer service and report writing. Therefore, as noted by other reviewed studies, improving graduate employability involves focusing on the individual's skills, knowledge and other attributes acquired through training institutions that enable individuals to secure and maintain employment (Bridgstock & Jackson, 2019; Oliver, 2015). It will therefore be unfair for employers to assess students on these skills if students have not been exposed to them by training institutions. Students must also be taught these skills in class before being sent for industrial attachment.

6.3.13 Summary

This study established that most collaborative activities between TEVET institutions and industry are characterised by poorly coordinated arrangements. Without properly well-coordinated arrangements, commitment to objectives in MOUs between TEVET institutions and industry will continue to be weak. The 2020 TEVET policy document proposed reviewing the TEVET legislation to compel industries to work with TEVET providers to facilitate public-private partnerships in financing skills development (Ministry of Higher Education, 2020). Contrary to this proposition, this study proposes using clearly outlined benefits and effective communication as keys to ensuring that industries collaborate with training institutions and vice versa. Being driven by profit,

industry would be inclined not to commit to a collaborative arrangement which has unclear rewards and costs. For instance, all the companies that participated in this study linked their unwillingness to collaborate with training institutions to their expectation that TEVETA, through the SDF, would take charge of the training needs of training institutions. Strengthening commitment to objectives between stakeholders is thus very crucial in ensuring the success of all collaborative activities. Additionally, ensuring the successful implementation of the itemised collaborative activities in Figure 6.1 will require the following:

- a. Joint coordination of the activities;
- b. Stipulated logistical arrangements and incentives;
- c. Convenient duration of activities; and
- d. Stakeholder knowledge of the importance of the activities.

6.4 OBJECTIVE 2: THE INFLUENCE OF EXISTING COLLABORATIVE ACTIVITIES ON SKILLS DEVELOPMENT

The second objective of this study was to better understand the perceived influence of existing collaborative activities on the quality of skills acquired by students. According to Fouché et al. (2011), a phenomenological study attempts to understand people's perceptions, perspectives and understanding of a particular situation as seen through the eyes of people who have experienced it first-hand. Additionally, Doris and Fuster (2019) contend that hermeneutical phenomenology, a procedure employed in this study, leads educational agents to reflect on their personal experience and professional work to analyse the essential aspects of this experience. Therefore, participants in this study reflected on the influence of existing collaborative activities on skills development. Their reflections were summarised into three main aspects, namely: the quality of TEVET graduates; programmes aimed at improving stakeholder satisfaction; and challenges hindering stakeholder satisfaction.

6.4.1 Stakeholders' perceptions of the quality of graduates

Participating stakeholders in this study were asked to share their perceptions of the existing collaborative activities. As indicated in Figure 6.2 below, a few stakeholders indicated that they were satisfied with the quality of the graduates. However, even the

ones who were satisfied indicated several gaps that must be filled to improve the quality of graduates. It was established that most stakeholders were not very satisfied with the quality of graduates from TEVET institutions. This finding is similar to a study reviewed earlier, which indicated that ninety-three per cent of students were not satisfied that the current curriculum provided them with relevant knowledge to propel them in future employment prospects (Denhere & Moloi, 2021).

Additionally, phenomenological research looks closely at an individual's interpretation of his or her experiences (Lodico et al., 2006). A total of twenty stakeholders participated in this study. Participating stakeholders were allowed to use their own words to rate their satisfaction with the quality of graduates, and their responses are illustrated in Figure 6.2. The terms used by the stakeholders to rate their satisfaction were compiled and included satisfied, fair, partially satisfied, satisfactory, average, not sure and not satisfied. Despite the disparity in the terminologies used to describe their level of satisfaction, it was established that most participants had a negative perception of the quality of graduates. A similar study by Mabunda and Frick (2020) on graduate employability in South Africa revealed the existence of negative stakeholder perceptions about the employability of national certificate graduates. These findings indicate that propelling TEVET employment prospects will require improving the quality of TEVET graduates.

According to Small, Shacklock and Marchant (2018), as a quality indicator, a degree programme has minimal effect on a graduate obtaining a job but a large effect on the graduate being able to do the job. Similarly, most of the participating stakeholders attributed their rating of the quality of graduates to the failure of TEVET graduates and students on industrial attachment to perform expected skills competently. Stakeholders' perceptions of the quality of graduates reveal the need for effective collaboration between training institutions and industry. Without effective collaboration, training institutions will continue to produce graduates who are not competent enough to bring about the much-needed productivity required for economic growth. Effective technical and vocational training must make people more relevant and productive in designated areas of economic and technological activities (Albashiry et al., 2015; Oviawe et al., 2017).

Eminent in all responses are aspects of doubt and hope. Stakeholders expressed doubt about the quality of graduates based on their poor performance in practical skills. At the same time, stakeholders expressed hope that training institutions can produce highly competent graduates if only they can collaborate with the industry to leverage each other's strengths to improve the quality of skills development.

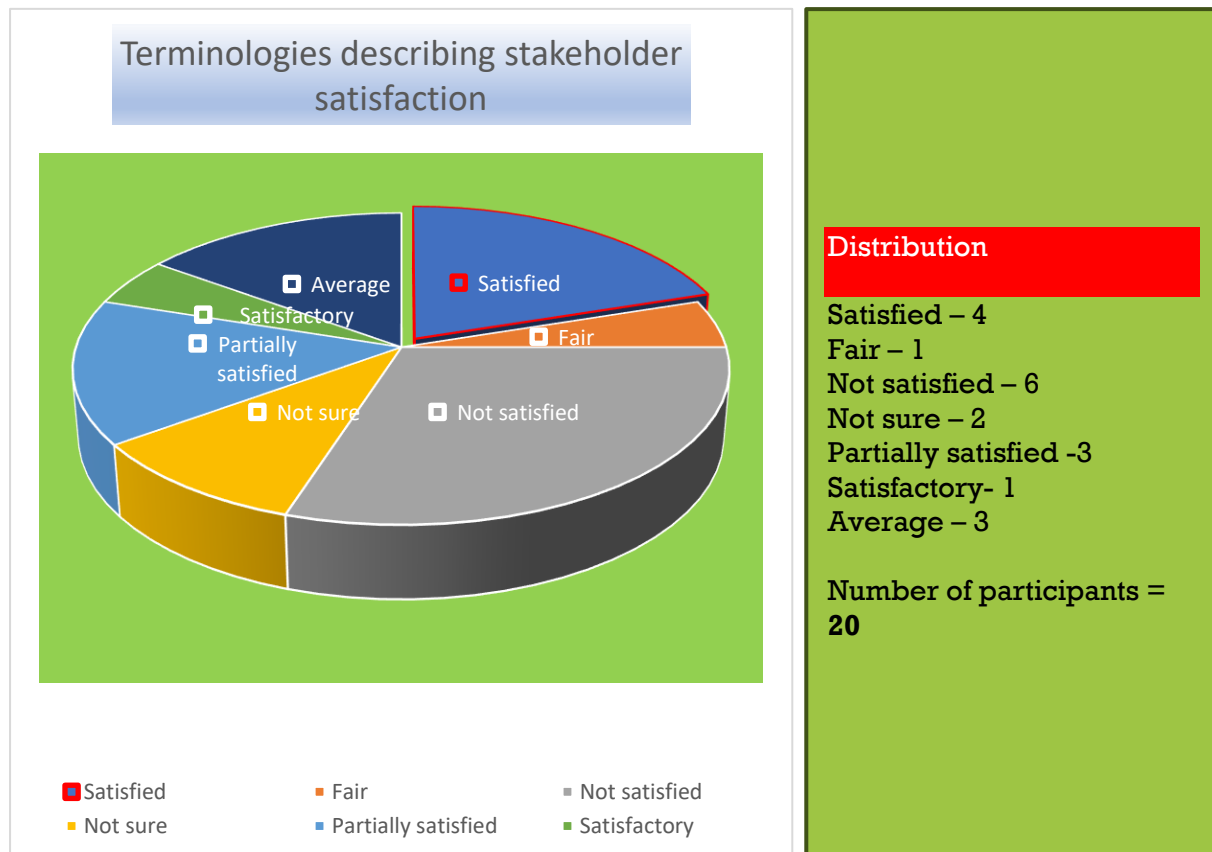


Figure 6.2: Terminologies describing stakeholder satisfaction with the quality of graduates from TEVET institutions.

Most reasons stakeholders gave for their perception of the quality of graduates can be mitigated through effective collaboration. Other reasons for the stakeholders' rating which were also noted by other researchers such as Eicker et al. (2017), Ismail et al. (2018) and (Papier et al., 2017) include:

- I. Limited exposure to practical work during institutional training;
- II. The mismatch between practical work students are exposed to during institutional training and what they are exposed to during industrial attachment;

- III. The mismatch between the equipment students are exposed to during institutional training and what they find in the industry;
- IV. Syllabi has older technologies than those found in the industry;
- V. Students have difficulties with the practical application of skills taught in class;
- VI. Employers are forced to retrain graduates;
- VII. Industrial attachments are training sessions rather than sessions meant for perfecting what students already know;
- VIII. Institutions are struggling to secure sufficient teaching and learning resources required for practical training;
- IX. More theoretical content than practical content in the syllabi; and
- X. Students have poor communication skills.

Unlike other studies as mentioned above, this study highlighted the aspects of mismatch in practical exposure. For instance, those in the plumbing industry noted that they were exposed to domestic plumbing at institutions, whereas their workplaces exposed them to pipework plumbing.

Apart from the issues of students and graduates having poor communication skills, the industry is also burdened with retraining the graduates. Burdening industry with such work and expecting them to contribute towards the skills development fund is what graduate employers refer to as double taxation by the TEVET sector. Hence the dissatisfaction with not only the quality of graduates but also the TEVET system, and their unwillingness to actively collaborate with TEVET institutions.

6.4.2 Programmes aimed at improving stakeholder satisfaction

While this study's findings are consistent with Homans' (1958) argument that social behaviour is influenced by an exchange process that maximises benefits and minimises costs, this study also revealed that all stakeholders must be well aware of benefits and costs to improve participation. The data revealed that most stakeholders were unaware of the guidelines or policies governing these collaborative activities. As a result, they find it difficult to participate in a collaborative arrangement where clear guidelines or policies are not stipulated. To improve the effectiveness of collaborative activities, Raihan (2014) underscores the importance of developing policies on TEVET

and industry linkages, describing in detail the collaboration types, collaboration-building methods and specific roles of providers and enterprises. Nevertheless, this section explains the programmes the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) developed to improve stakeholder satisfaction and participation. It is important to note that while the Ministry of National Development Planning (2017) outlines the following programmes as strategies to increase access to skills training, this study views them as programmes aimed at improving stakeholder satisfaction and participation. These programmes are the TEVET learnership programme, employer-based training (EBT), Recognition of Prior Learning (RPL), TEVET rebranding and the skills development fund (SDF) and constituency development fund (CDF).

6.4.2.1 TEVET learnership programme

This study established that while public institutions seem to have failed to implement the learnership programme successfully, private institutions are doing exceptionally well with the same programme. Graduates in learnership programmes are also said to be more productive than those pursuing institutional-based programmes. It was noted that most public institutions abandoned the programmes because private companies they were working with pulled out of the programme. The withdrawal of private companies seem to suggest the need for further research on the reasons for the withdrawal. It can only be assumed that the companies withdrew because of a lack of benefits from the collaboration. Knowing and understanding the needs of stakeholders through effective communication is thus important to sustain future collaborations. Similarly, Pongo and Obinnim (2015) recommend re-examining industry-related issues based on standards and quality indicators and discovering ways to strengthen collaborative linkages between TEVET institutions and the industry.

6.4.2.2 Employer-based training (EBT)

To improve industry satisfaction, TEVETA provides subsidies to companies wishing to train their staff at public TEVET institutions using the Skills Development Fund (SDF). This way, companies benefit from the Skills Development Levy (SDL) which they must pay (TEVETA, 2019). Employer-based training (EBT) is one of TEVETA's strategies

to develop stronger links with the industry and ensure they benefit from the SDL. However, although employers have initially welcomed EBT, some employers suggested that there must be equity in the payments of the EBT subsidies, claiming that some companies pay much more than they are benefiting from the levy. Also suggested was the increase in the frequency of refresher or capacity-building courses for employees in the industry, especially those that pay SDL. This finding indicates that the industry is not very satisfied with the way EBT is being managed as they are not getting the benefits they envisaged they would get. More significantly, this finding highlights the role of equity in building and sustaining successful collaborations. Moynihan and Soss (2014) contend that motivations and cultures are among the key components of administration. Such components must thus guide successful collaborations, and it must be emphasised that the benefits of collaboration must be shared equitably among stakeholders to encourage participation and improve stakeholder satisfaction.

6.4.2.3 Recognition of prior learning (RPL)

Another effort by TEVETA to bring the industry closer is the recognition of prior learning (RPL), where TEVETA certifies informally trained personnel individually or through the recommendations of companies. While graduate employers seemed very knowledgeable about EBT, they seem to have little knowledge of RPL, as it was never raised during the interviews. The fact that RPL was not mentioned in the stakeholders' responses during the interviews could indicate a lack of awareness regarding RPL. Stakeholders were thus unaware of how they could use this offer by TEVETA. A study by Arinaitwe (2021) emphasised that communication between partners must be improved for collaboration in technical and vocational programmes to succeed. Similarly, this study views the lack of effective communication as a contributing factor to the failure of the industry to benefit from some of the programmes offered by TEVETA.

6.4.2.4 TEVET rebranding

All employers of TEVET graduates are legally required to pay a skills development levy (SDL) towards the skills development fund (SDF) coordinated by TEVETA. Funding from the SDF is supposed to be directed towards skills development in the

formal sector and is expected to focus on higher-level skills provided by public or private training institutions in collaboration with employers (TEVETA, 2019). This was to be achieved by rebranding. However, this study found that TEVET institutions at the time of this research have not yet offered the planned higher-level skills development programmes owing to reasons already discussed. This upgrade of TEVET programmes from craft certificates to diploma levels is called TEVET rebranding.

TEVET rebranding was meant to improve stakeholder satisfaction by producing graduates with higher-level qualifications in courses where the highest qualification was a craft certificate, as is the case in most construction programmes. However, after formulating and distributing the curricula, the programmes did not take off because TEVETA did not consider the inadequate qualifications of lecturers, unavailability of relevant training equipment and inadequate student-lecturer workspaces. Despite the programme being unsuccessful at present, this remains an important initiative, not only to the industry but also to training institutions. If implemented correctly, this initiative can increase the number of highly qualified personnel working in the industry and training institutions as lecturers.

It was also established that TEVETA has planned to introduce polytechnic degrees in its 2020 policy document even though it has not secured the jurisdiction to regulate programmes at the degree level. This is a weakness within TEVETA. Calling upon the industry to collaborate with training institutions at this stage will thus expose the weaknesses of TEVETA and training institutions. The failure of TEVETA to follow appropriate procedures might explain why graduate employers seemed hesitant to participate or could be unaware of how far this rebranding of TEVETA courses had progressed. Similarly, the industry also experienced challenges where collaboration with training institutions became a threat. For instance, a study by Nunfam et al. (2022) found that the tendency of external affiliates to breach organisations' policies and procedures by leaking out core corporate information is a constraint to collaborative activities such as industrial attachment programmes. This finding suggests that increased collaboration and interactivity between organisations and their external partners inevitably leads to a high probability of business knowledge leakage to prospective competitors. What this means for the building and sustaining of effective

collaborations is that there is a need to adhere to each partner's boundaries regarding disseminating information and components requiring collaboration.

6.4.2.5 Skills Development Fund (SDF) and Constituency Development Fund (CDF)

According to the 2019 Skills Development Annual Report (TEVETA, 2020), SDF and CDF were channelled towards increasing enrolments in TEVET institutions through bursaries awarded to youths pursuing TEVET programmes from TEVETA-accredited institutions. The data seem to indicate that most stakeholders are aware of the use of the SDF and CDF towards increasing student enrolments. Institutions confirmed receiving funds for some programmes they had applied for regarding funding from TEVETA. However, employers suggested that the SDF must also be utilised to enhance collaborations between training institutions and industry to ensure that students have adequate practical skills. This seems to indicate that employers do recognise the importance of collaboration in enhancing the quality of skills development, as Anderson and Sanga (2019) explained. However, the data suggests that industry recognises that for collaboration to be successful, funds must be allocated towards collaborative activities beyond the needs of institutions and students, such as bursaries and programme requirements.

6.4.3 Challenges hindering stakeholder satisfaction

Early social exchange theorists agree that inequitable rewards are discomforting (Nord, 1973). Additionally, man's behaviour results from perceived payoffs regardless of the provider of those payoffs (Homans, 1961). The providers could be humans or the environment. Challenges hindering stakeholder satisfaction were thus drawn from stakeholders' lived experiences with the payoffs offered by humans and the environment. In this study, it was established that stakeholder satisfaction was mainly hindered by the perceived failure to provide a conducive environment for effective teaching through insufficient funding, lack of sensitisation of companies on student attachments, unbalanced collaboration benefits, weak liaison links between TEVET institutions and industry, over-enrolment and failure to meet industry demands. Figure 6.3 illustrates how these challenges have affected stakeholders' satisfaction with the collaboration between TEVET institutions and the industry.

6.4.3.1 Insufficient funding

Similar to a study by Eicker et al. (2017), this study revealed that insufficient funding of public training institutions was responsible for TEVET institutions' struggle to finance institutional budgets towards running costs and relevant training materials and equipment, as outlined in Figure 6.3. Most affected were lecturers and students who work and learn in unconducive environments.



Figure 6.3: Challenges hindering stakeholder satisfaction

Without a conducive teaching and learning environment, it is irrational to expect institutions to produce graduates who will satisfy the demands of the industry. As such,

lack of funding goes beyond institutions' failure to provide conducive teaching and learning environments and affects all other stakeholders differently. Students are not confident and competent enough to execute practical work, lecturers must train many students using limited and outdated materials and equipment, employers must retrain graduates, and administrators must manage institutional budgets using limited resources.

It was also established that public TEVET institutions were struggling to secure adequate computers, internet connectivity, gas and electricity, stocking the library, student-lecturer workspaces, training materials and modern equipment. To help remedy the funding challenge, institutional administrators suggested that collaborations between training institutions and industry can be used as platforms to raise funds to supplement institutional budgets. Financial consideration is thus a crucial factor in ensuring stakeholder satisfaction, as a lack of sufficient funds jeopardises activities aimed at enhancing the quality of skills development.

6.4.3.2 Lack of sensitisation of companies on student attachments

According to Rybnicek and Königsgruber (2019), the contrast between objectives and constraints potentially enhances the value of collaboration. However, it is also a source of complications. Agreeing with Rybnicek and Königsgruber's (2019) assertion, this study found that failure to clearly outline the objectives of a collaborative activity to all stakeholders leads to several challenges and even abandonment of an activity. Sensitisation is therefore vital in ensuring stakeholder satisfaction and enhancing the quality of collaborative activities. For instance, the study revealed that the lack of sensitisation of stakeholders on the importance of student attachments and their roles in maximising the benefits of these attachments was responsible for the following:

- Poorly written assessment reports by student supervisors at the end of the industrial attachment;
- Wrong placement of students within the company during industrial attachments, making students fail to maximise the benefits of the attachment;
- Lack of seriousness by some students as there are no lecturer visitations during attachments as is the norm at private TEVET institutions; and
- Poor choice of places for industrial attachment by students, making some of

them spend time in companies that have very little to offer them.

The role of sensitisation in enhancing stakeholder satisfaction regarding industrial attachments emphasises the importance of identifying the nature and forms of knowledge essential in developing and sustaining collaborations. It is also important to discuss how this knowledge can be acquired and communicated to other stakeholders (Rehman & Alharthi, 2016).

6.4.3.3 Unbalanced collaboration benefits

Stakeholders in technical education and vocational training agree that authentic engagement is fundamental to quality outcomes and must be structured, intentional and resourced (Ferns et al., 2016). The data revealed that most unsuccessful MOUs that were signed between TEVET institutions and the industry resulted from stakeholders' dissatisfaction with the distribution of benefits. For instance, employers lamented that funds towards employer-based training from the SDF were unfairly distributed. Additionally, employers complained of being taxed twice as graduates from TEVET institutions require retraining once they have been employed. Employers thus spend more money by paying the SDL and retraining the graduates.

Similarly, some institutional administrators indicated unbalanced benefits during the collaborations as reasons for their unwillingness to collaborate with some employers. This finding confirms that people weigh the potential benefits and risks of collaboration (Rusbult & Van Lange, 2003). The finding further confirms Homans' (1974) success proposition which states that behaviour that generates positive consequences is likely to be repeated, and the distributive justice proposition, which states that people will become angry and aggressive when they do not receive what they anticipate or a fair rate of return (Cook et al., 2013).

6.4.3.4 Weak liaison links between training institutions and industry

This study's findings support the assertion that linkages between technical and vocational training institutions and employers could strongly contribute to overcoming the gap between skills supply and demand (Arinaitwe, 2021; Grijpstra & Papier, 2015; Mwila, 2016). Similar findings include Moono and Rankin (2013), who found that education providers in Zambia were not proactive in engaging the industry on

the relevance of their training and Wariyo (2018), whose study revealed a lack of systematic coordination between relevant stakeholders. Unlike these studies, my study's data indicated that collaboration links were weak and not meaningful owing to undefined benefits, especially for industry and existing policies are inadequate to compel industry to collaborate with training institutions. Improving stakeholder satisfaction also involves strengthening liaison links which can be used as platforms for sensitising stakeholders on the expected benefits of the collaboration, policies governing the collaboration and the roles of stakeholders in that collaboration.

6.4.3.5 Over-enrolment

Many TEVET institutions in Africa face the challenges of producing employable graduates, over-enrolment and the availability of training materials and infrastructure (Anindo et al., 2016). Differing from other studies such as Anindo et al. (2016), Ayonmike et al. (2015), Osidiye (2019) and Hickey and Hossain (2019) which emphasised institutional problems caused by over-enrolment, my study revealed that over-enrolment caused two distinct problems for the training institutions and the industry. While institutions complained of forced over-enrolment by college boards to raise funds required to run the institutions, the industry complained of being overwhelmed with the high numbers of students requesting industrial attachment places. The construction programmes negatively affected by this enrolment were power electrical and plumbing. In these programmes, over-enrolment is regarded as one of the factors responsible for public training institutions' failure to produce graduates who satisfy the needs of industry. Therefore, there is need to balance the significant number of students seeking internship spaces with the limited space in industry by developing strategies which will allow all students to be exposed to internships without overburdening the industry.

6.4.3.6 Failure to meet industry labour demands

Vocational education and training is challenged by increasing skills shortages in specific industries and rapidly changing skill requirements (Pillay et al., 2014). Nations have viewed collaborations as key to creating highly skilled and productive graduates to meet the demands of the industry (Mgonja, 2017). While this study predominantly focused on how collaboration can be utilised to enhance the quality of skills

development, the data also revealed that institutions fail to produce the desired quantity of graduates in some programmes. Very low enrolments and outputs are mainly in carpentry, joinery, bricklaying and plastering programmes. The poor enrolments were attributed to the poor perception among the public of some TEVET programmes, and the lack of funds to finance some of these programmes.

Satisfying industry will therefore require increasing enrolments and funding for such programmes through stakeholder engagement. Additionally, the poor perception among the public of some TEVET programmes can be improved through intensive public enlightenment that TEVET is an effective programme to train skilled workers for the employment market and for a sustainable livelihood (Oviawe, 2018).

6.5 OBJECTIVE 3: EXISTING POLICIES GUIDING COLLABORATION BETWEEN TEVET INSTITUTIONS AND INDUSTRY

The Zambian TEVET 2020 policy suggests that the current TEVET legislation must be reviewed to compel industries to work with TEVET providers, promote joint projects and linkages between TEVET institutions and industry, and facilitate public-private partnerships in financing skills development (Ministry of Higher Education, 2020). Similarly, it was noted among researchers that improving skills development quality will require partnerships between institutions and industry to encourage institutions to implement transition programmes to address the local labour market demand (Pillay et al., 2014). Additionally, Rybnicek and Königsgruber (2019) argue that while the advantages of these collaborations are well recognised, there are numerous hindrances and challenges that if not met, might lead to failure. This study thus explored existing policies and platforms on collaboration, hindrances to successful collaboration, and stakeholder recommendations on building successful collaborations between TEVET institutions and industry, as indicated in Figure 6.4.

6.5.1 Main policies guiding collaborations between training institutions and industry

Functional structures of the TEVET system in Zambia include policy formulation, policy regulation and service provision spearheaded by the Ministry of Higher Education, TEVETA and training providers (Eicker et al., 2017). For the system to succeed, my

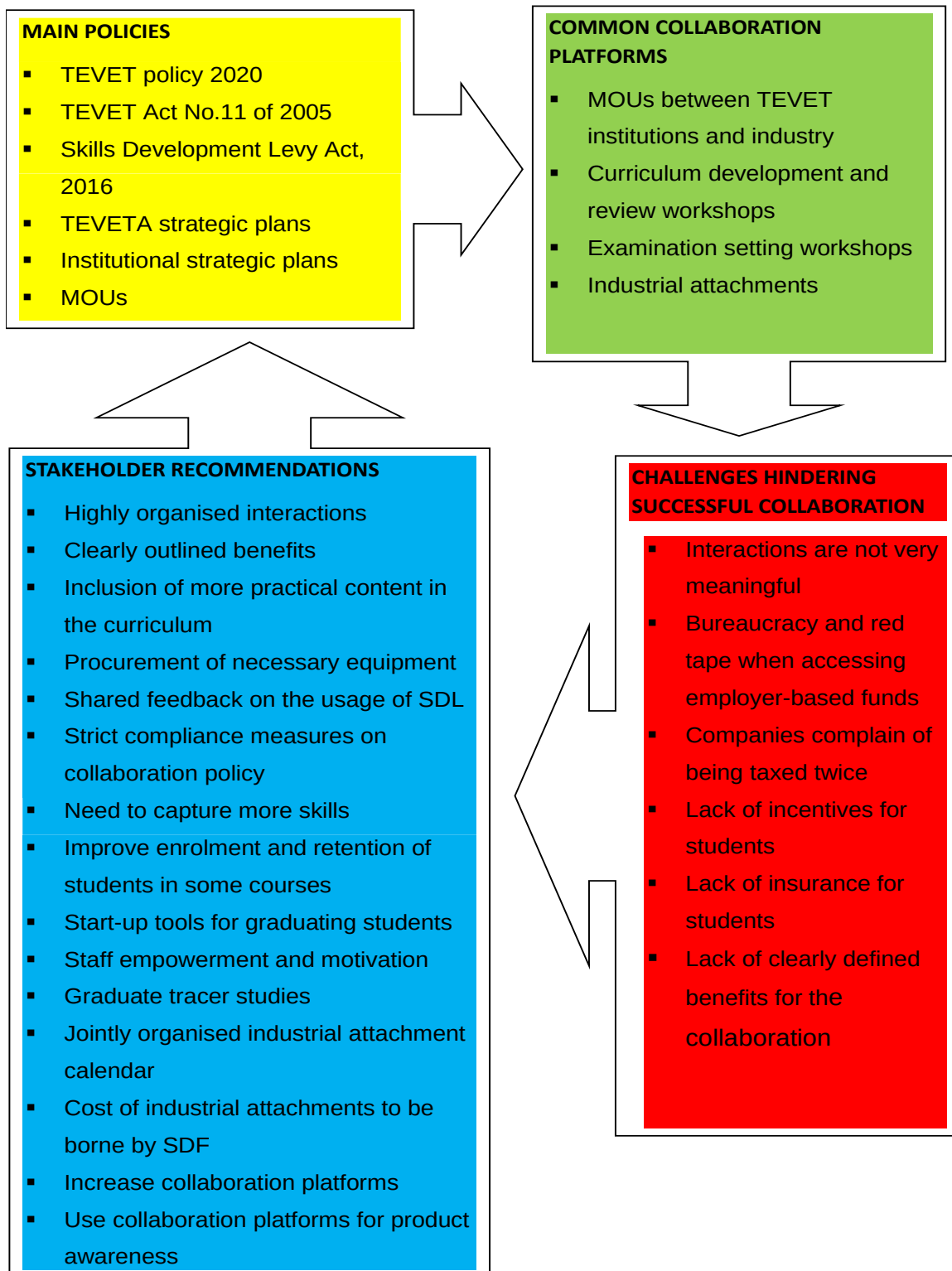
study suggests that collaboration between functional structures and the industry must be guided by clearly stipulated guidelines and expected benefits for all stakeholders. It was established that most stakeholders were not fully aware of the policies guiding collaboration between TEVET institutions and the industry. Collaboration between TEVET structures and industry is mainly achieved through MOUs between stakeholders which are guided by the following policies:

- I. TEVET Policy of 2020;
- II. TEVET Act Number 11 of 2005;
- III. Skills Development Levy Act of 2016;
- IV. TEVETA strategic plans; and
- V. Institutional strategic plans.

It was confirmed that the available policies did not have detailed information on the roles of stakeholders and how new collaborations must be formed and sustained. Additionally, the ignorance of participating stakeholders regarding the available policies indicates a need to inform and educate stakeholders on policies governing the TEVET system. Although the participating stakeholders seemed more knowledgeable about their institutional strategic plans and the Skills Development Levy Act, the same cannot be said about other policies.

Alagaraja et al. (2014) postulate that the fragmented and diffused policy structure currently existing in both developed and developing countries is a significant barrier to examining the effectiveness of TEVET systems. Similarly, this study relates the fragmented and diffused policies on collaboration to the lack of effective collaboration between the TEVET structures and the industry. Despite TEVETA regulating, coordinating and monitoring TEVET collaboration with the industry, there is a need to enhance collaboration between TEVETA, training institutions and the industry through well-articulated public policies on collaboration. As indicated in Chapter 2, public policies are political forces in their own right. Public policies can alter critical components of administration and phenomena such as motivation and culture (Moynihan & Soss, 2014). Policies on collaboration must include strategies for sustaining collaborations through motivating stakeholders. Collaboration is, therefore, a culture that needs to be expanded in TEVET and other forms of training.

Figure 6.4: Policies, platforms, challenges and stakeholder recommendations on collaboration between TEVET institutions and industry



6.5.2 Common collaboration platforms

Researchers have argued that collaborations between TEVET training institutions and industry significantly enhance a sustainable workforce to meet industry's human resources needs (Arinaitwe, 2021; Bridgstock & Jackson, 2019; Harvey, 2019; Oviawe et al., 2017). This study identified five main platforms where most collaborations between TEVET institutions and industry occur. These platforms are:

- i. Seeking, signing and implementing of MOUs between training institutions and industry;
- ii. Curriculum review and development panels;
- iii. Examination setting panels;
- iv. Industrial attachments; and
- v. Problem-specific stakeholder meetings organised by TEVETA.

The experience of stakeholders with the above platforms indicates a need for broader collaboration platforms. Despite the platforms mentioned above, the participating stakeholders indicated that there are no platforms for collaboration since the above platforms involve a few purposefully selected stakeholders. For collaboration to be meaningful, there is a need for broader participation and involvement of the majority of the stakeholders. While vocational education and training (VET) reform is increasingly common, there is more evidence for designing it than implementing it (Caves et al., 2021b). This study found that there is a gap between VET reforms and its implementation due to the lack of sufficient guidelines on the implementation of reforms. Therefore, for collaborative platforms to be effective and sustained, there is a need for clear and adequate guidelines to govern implementation.

6.5.3 Challenges hindering successful collaboration between stakeholders

The literature review revealed that the practical management of collaboration between training institutions and industry is often hampered by procedural rigidity, either through the absence of decision-making protocols to reconcile conflicting priorities or the inconsistent implementation of existing policies (Alexander et al., 2020). Other challenges hampering successful collaboration also inferred by my study and other literature include contradictions linked to short time frames for collaborative activities,

unsynchronised activity plans, contradictory working cultures, lack of a common understanding of the objectives and work methods of the collaborative activities, lack of feedback to actors and an absence of a collaboration focal person (Arinaitwe et al., 2022). For instance, stakeholder experiences with collaborative activities indicated that the industry is unhappy with the bureaucracy and red tape surrounding its access to collaboration benefits, such as employer-based training funds from TEVETA. One of the graduate employers noted:

There is too much red tape and bureaucracy when accessing these funds. And honestly, as business entities, we do not have enough time to go through all these loops. They need to refine the process of accessing these funds. (P4)

Other factors that ensure success of collaborations include mutual trust, rewards and benefits to individuals, open and transparent communication, commitment and government support (Yee, Chong & Kendall, 2015). Adding to the study by Yee et al. (2015), this study highlights the importance of making collaborations meaningful and holistic enough to cover most aspects that are crucial to improving the quality of skills development as a success factor. The data indicated that collaborations are not adequate and meaningful because:

- The types of collaboration are limited and mainly centred on student outcomes. Many other activities crucial to improving the quality of skills development are neglected, such as lecturers' qualifications and competence.
- There is a lack of commitment towards the collaborations.
- There is an unfair distribution of benefits for the stakeholders.
- There is a failure by institutions to ensure adequate practical training at institutions and students are not given financial support to cover transport, accommodation, lunch and startup-kits expenses during industrial attachments. This failure shifted the cost of such necessities to the employers, who also pay SDL.

Most challenges hindering successful collaboration point to stakeholder dissatisfaction regarding policy on implementation and the scope and benefits of collaborative activities, which affect stakeholders' commitment and trust towards such activities. Policies must thus focus on mitigating these challenges if collaborations between TEVET structures and industry were to be successful.

6.5.4 Stakeholder proposals and recommendations

When formulating policies, it is vital to state the goals and priorities of the policy and identify available options to achieve the set goals and externalities associated with each alternative (Sidney, 2017). The literature review revealed that while policies in Zambia on TEVET highlight the importance of collaboration in reducing the gap between the skills produced by TEVET institutions and the skills required by the industry, they do not stipulate how these collaborations must be developed and sustained. Drawing from their experience with collaborative activities, stakeholders made a number of proposals and recommendations regarding developing and sustaining collaborations and other externalities.

6.5.4.1 Developing collaborations

The data revealed that developing meaningful collaborations will require that the collaborations are premised on well-outlined guidelines in a collaboration policy. Different views of who should lead these collaborations between TEVETA, training institutions and the industry were explored. TEVET policies in Zambia are formulated and reviewed by the Ministry of Higher Education. They are regulated by the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) (Eicker et al., 2017b). This study found that under the current arrangement, TEVET institutions are mandated to develop collaborations with the industry on their terms. TEVETA mainly plays a supervisory role during conflict resolution or administering examinations, among other issues.

However, institutions complained about the high failure rate of these collaborations. They cited a lack of policy guidelines and necessary means to facilitate the collaborations, such as funds. Since TEVETA is in charge of policy regulation and the administration of the SDL, stakeholders' suggestion to make TEVETA responsible for

leading these collaborations through the quality assurance department carries much merit.

Another suggestion was that TEVETA must develop a collaborative board consisting of stakeholders from institutions, industry and TEVETA itself to coordinate collaborative activities between TEVET institutions and industry. These suggestions affirm Nore and Lahn's (2014) assertion that scholars and policy-makers must recognise that collaborations must be supported by institutions and technological systems that mediate the relationship between institutions and work and generate boundary crossing. These suggestions also add to Zambia's Vision 2030 plan, which noted that Zambia aspires to develop solid and cohesive industrial linkages in the primary, secondary and tertiary sectors (Government of the Republic of Zambia, 2006).

Besides the stipulated guidelines, stakeholders suggested that policies must stipulate expected benefits/incentives for all stakeholders. For instance, training institutions and the industry know the benefits of employer-based training. The data seem to suggest that equitably shared benefits are crucial in helping stakeholders decide whether to collaborate or not. It was also established that some employers terminated MOUs with TEVET institutions due to a lack of benefits. The SET, which forms this study's theoretical framework, is often utilised to create perceptions or establish social equity within groups leading to trust and power in organisations (Muldoon et al., 2018). The theory underscores the role of rewards in reinforcing behaviour (Cook & Emerson, 2013), which is likened to collaboration in this study. Incorporating expected rewards in the policy might motivate the private sector to become more involved in the planning and implementation of TEVET programmes and improve the level of mutual information on the job market, making recruitment of graduates more efficient (Oviawe, 2018).

6.5.4.2 Sustaining collaborations

Having managed to develop collaborations between TEVET institutions and industry, collaboration policies must also stipulate means of sustaining these collaborations. Stipulating means will ensure that stakeholders remain committed to the collaborations developed.

To achieve this, stakeholders suggested the following measures:

a. Feedback from TEVETA on the usage of the SDL

Stakeholders recommended that there must be regular collaborative meetings between authorities in charge of administering the SDL to update stakeholders on how the SDL is utilised. These meetings are vital in fostering transparency in the SDL and ensuring that industry develops confidence and trust in these authorities. This recommendation aligns with Yee et al. (2015) findings that mutual trust is crucial in building a relationship and enabling it to flourish into a longer-term collaborative relationship. Additionally, in a complementary manner, trust reflects an individual's confidence in the partner's pro-social motives (Rusbult & Van Lange, 2003).

b. Strict compliance measures on collaboration policy

It was revealed that current MOUs between the industry and training institutions lack enforcement powers, and parties do not feel obliged to meet their promises and sometimes pull out without informing the institutions or industry partners. To remedy this challenge, stakeholders suggested that there must be strict compliance measures. However, these measures must be carefully compiled. For instance, according to the SET theory used in this study, compelling industry to collaborate with TEVET providers is synonymous with punishment, which is a poor reinforcer (Blau, 2017). Using punishment as a social deterrent might not yield the expected compliance levels because human beings often look either backwards or forward and evaluate the expected benefits or that which has been rewarding to them in the past before they continue to be in a relationship (Heath, 1976). As such, policies on collaboration must be designed in such a way that they in themselves must positively reinforce the behaviour of stakeholders by encouraging them to actively participate in collaborative activities.

c. Improve enrolment and retention of students in some programmes

Research has shown that the skill level of the available workers is inadequate, giving rise to a situation where employers are in dire need of workers, while the youth entering the workforce cannot find suitable employment (Neroorkar & Gopinath, 2020; Pilz, 2016). Similarly, this study established two extremes regarding enrolment and

retention of students pursuing construction skills. While power electrical, plumbing, and sheet metal programmes struggled with over-enrolment, bricklaying, plastering, carpentry, and joinery programmes struggled with under-enrolment and retaining the few enrolled students. To remedy the challenge, stakeholders recommended to collectively find ways to improve enrolment, such as revising and shortening the training period for the programmes with enrolment issues. When focussing on technical and vocational students' decisions to stay in or drop out of a programme, Billett et al. (2018) highlighted students' decisions in this regard are influenced by matters both inside and outside the school.

d. Start-up tools for graduating students

TEVET training is an avenue to empower the youth to be self-employable, have employable skills, and boost economic development (Anindo et al., 2016). At the centre of the collaboration between training institutions and industry are the students. While collaborations mainly focus on serving the industry's and training institutions' needs, it is also essential to meet students' needs. Apart from ensuring that students are competent enough to take up practical jobs offered by the labour industry, stakeholder participants recommended that graduating students must be empowered with start-up tools to enable students who are not successful in finding jobs in the already limited job market, to start up small and medium-sized enterprises (SMEs). Additionally, problems related to the employability of vocational education graduates are even more acute in rural settings, where employment opportunities are limited, and the scale of local economies is much smaller than in urban environments (Mabunda & Frick, 2020). Moreover, the outcomes of vocational graduates are characterised by lower earnings and less promising employment prospects than those for academic graduates (Agrawal & Agrawal, 2017). Therefore, collaboration policies must include ways in which students can be supported to sustain themselves beyond securing jobs in a formal setup.

e. Jointly-organised calendar on industrial attachments

One of the roles apportioned to the industry in implementing the 2020 TEVET policy is that the industry must provide opportunities for industrial attachment (Ministry of Higher Education, 2020). However, opposing views emerged on students' struggle to

find places for their industrial attachments. While employers are blamed for refusing some students to be attached to their companies, employers complained of being overwhelmed by the significant number of students seeking industrial attachments. Stakeholders, therefore, recommended that a jointly organised calendar on industrial attachments must be developed to avoid overwhelming the industry with students, an act that disrupts the core business of industry partners. Another alternative would be to create an inventory of companies that take on students for attachments and apportion specific institutions to them. To meet industry requirements and standards, stakeholders realise that institutions must maintain close ties with the industry and ensure training embraces technological changes (Eicker et al., 2017). Industrial attachments must be jointly organised to ensure that all students receive exposure to the industrial setup.

f. Cost of student attachments to be borne by SDF

A study by Mulenga and Chileshe (2020) revealed that some industries were unwilling to have students attached to their companies for fear of students damaging their equipment, the demand of paying them wages for the work done and transporting them to work. Similarly, in this study, it was established that companies are unwilling to finance student attachments through incentives towards logistics. Additionally, efforts to secure funds to support students on industrial attachment by institutions proved futile. As such, institutional administrators proposed that the SDF must bear the cost of student attachments. This arrangement will enable both industry and institutions to benefit from the SDF in terms of free labour and access to modern equipment while fulfilling their obligations in the collaboration. The proposal further proves the applicability of SET to collaborations between training institutions and industry because SET assumes that different forms of social interactions are built upon reciprocal exchanges, and which also facilitates reciprocity, psychological contracts and mutual obligations (Oparaocha, 2016).

g. Use collaboration platforms to create awareness and sell products

It was established that not all stakeholders are aware of TEVETA's initiatives to strengthen collaboration with TEVET institutions. Additionally, some companies rejected students based on a wrong perception of industrial attachment. To remedy

this situation, stakeholders recommended that collaborative platforms must, among many other programmes, be used to create awareness of:

- the importance of industrial attachments;
- the roles of stakeholders involved in the collaboration; and
- available training programmes in TEVET institutions.

Other studies suggest that awareness programmes must also be on social media platforms to include individuals in geographically dispersed organisations (Oparaocha, 2016). Anindo et al. (2016) further suggest that awareness programmes must also include sensitising students on the soft skills required to enhance employability, such as team-working, leadership and project management, awareness of their chosen industry sector, commercial awareness and business/organisation understanding.

h. Ensure more practical content and equip institutions with the necessary equipment

One of the reasons for the employers' dissatisfaction with the collaboration with training institutions were, among other issues, linked to institutions' inability to expose the students to adequate practical content and failure to stock necessary equipment. To minimise the cost incurred by employers in retraining TEVET graduates and supplying basic tool kits to students on industrial attachment, participating stakeholders recommended that policies on collaboration must ensure students are exposed to adequate practical content. Stakeholders further noted that institutions must see to it that institutions stock the necessary equipment, including tool kits for students on industrial attachments. According to Rusbult and Van Lange (2003), commitment in a relationship emerges as a consequence of dependence on a specific partner. The high satisfaction of needs, poor alternatives, and high investments strengthen relationships. This dependence means that stakeholders can remain committed to the collaboration if their needs are highly satisfied, the collaboration remains a better alternative and costs incurred are minimised.

6.5.4.3 Externalities which might affect stakeholder satisfaction

a. Lecturer empowerment and motivation

As in many developed and developing countries, the emerging picture is a TEVET teaching profession with low status and is not regarded as a first-choice career. One of the issues related to the low status and negative image is that teaching is not considered financially attractive. (Grijpstra & Papier, 2015: 34)

While the above statement is true compared to this study's findings, stakeholders recommended that collaborations between training institutions and the industry consider developing strategies for empowering and motivating lecturers. Lecturers must keep developing themselves and their practice to meet the growing social needs and changes (Arinaitwe, 2021). Differing from studies by Grijpstra and Papier (2015) and Arinaitwe (2021), stakeholders in this study suggested that for them to remain in public institutions and continue to be productive, they must be given some empowerment and motivation such as startup kits to help them use the skills they possess to generate finances and improve their standards of living. TEVET is designed to make graduates self-sustainable, and therefore those in charge of training others to be self-sustainable must lead by example.

b. Graduate tracer studies by training institutions

While a study by Khirotdin et al. (2019) suggested that industries must enhance the quality and delivery of the TEVET programme to improve graduates' employability, stakeholders in this study recommended that institutions must lead this important exercise by conducting tracer studies. They further suggested that collaboration platforms can be utilised to gain insight through industry feedback regarding the graduates' and lecturers' performance. The stakeholders viewed timely feedback as key in sustaining collaborations as it gave stakeholders enough time to work on the challenges reported. Therefore, in addition to feedback, the strength of partnerships depends on the time available for actors to commit to the collaboration, that is, time to share feedback and engage in the training (Arinaitwe, 2021).

c. Capture more construction skills

Research in the TEVET sector has revealed that the gap between the skills which are being produced by training institutions and the ones being required by the industry can be explained in terms of a shortage of specific skills and a lack of international competitiveness in the labour market (Albashiry et al., 2015; Malik & Venkatraman, 2017; Ministry of Higher Education, 2020; Mwila, 2016). Similarly, this study established that there is a need for TEVETA to capture more construction skills to avoid unnecessary importation of labour that could otherwise be sourced locally. Zambia's importation of skilled men for tiling and ceiling boards implies that the current construction skills are minimal and unable to satisfy the industry's needs. Sustaining collaborations between industry and training institutions will thus require meeting the skill needs of the industry, not only in terms of quality but also diversity and existing trends. Therefore, capturing more of the skills required by the industry is vital in collaborations between training institutions and the industry.

6.6 OBJECTIVE 4: IMPORTANCE OF COLLABORATION IN ENHANCING THE QUALITY SKILLS DEVELOPMENT.

TEVET is no longer seen as the sole responsibility of educational institutions, but it is increasingly recognised that workplaces, private individuals and other non-governmental and community organisations must share in this responsibility (Oviawe et al., 2017). Additionally, "knowledge sharing in the context of interactions with different and disparate parties (not just immediate co-workers) holds the greater potential for uncovering new ways of doing things" (Ahmed et al., 2018: 36). Collaboration is thus an essential aspect for TEVET institutions, industry, and all walks of life. Anderson and Sanga (2019) argue that collaboration is one of the best strategies to ensure the industry's desired quality of human capital. This study explored the importance of successful collaboration between TEVET institutions and the industry in enhancing skills development. Participating stakeholders agreed that without collaboration, training institutions and the industry would continue to have unresolved issues regarding skills development. This study has endeavoured to add to the body of literature on the importance of collaboration between TEVET institutions and industry by identifying problematic aspects of skills development which could be

improved or mitigated to acceptable levels through collaboration. These aspects are (a) industrial experience; (b) training equipment; (c) graduate employability; (d) pedagogy; (e) resources; and (f) sensitisation on TEVET.

6.6.1 Improving the quality of industrial experience

Industrial experience is increasingly recognised as a valuable tool for developing knowledgeable and skilled graduates who are suitably prepared to perform successfully in the workplace (Jackson et al., 2017). Similar to the findings of this study, other scholars argue that collaboration between training institutions and the industry is one of the best strategies to ensure the desired quality of human capital in the industry (Anderson & Sanga, 2019). Another related study on collaboration in construction programmes offered by TEVET institutions recommended that the construction industry work closely with TEVET colleges to explain the roles involved in various careers and design college programmes that meet the requirements of industries that absorb their learners (Ngozwana, 2018). This recommendation underscores the importance of practical industrial attachments in improving the quality of human capital in TEVET skills. Similarly, this study revealed that effective collaboration between TEVET institutions and industry is essential in improving the quality of industrial attachments. Among other issues that can be resolved through collaboration revealed by this study are:

- Training institutions would be able to secure relevant and adequate industrial attachment places, leading to students' exposure to relevant skill sets.
- Sensitise employers on how to help students with industrial attachments.
- Understand the type and quality of exposure different companies can offer students on industrial attachment.
- Improve student retention during industrial attachments.

It is evident that while there are numerous approaches for implementing effective industrial attachments, authentic engagement with industry and community partners is fundamental to quality outcomes (Ferns et al., 2016).

6.6.2 Reducing the mismatch in training equipment

Stakeholders noted that failure by students to perform as expected during industrial attachments could be traced to poor exposure to practical activities during institution-based training. It was revealed that most practical works at institutions involved mere demonstrations. Students were often asked to assemble and demolish objects for usage during subsequent lessons. Hence, students had difficulties in not only building works from scratch, but also repairing permanently installed items. Collaborations between vocational institutions and industries create a positive impact by sharing additional knowledge and consensus to reduce the mismatch of industrial needs among graduates (Ramli & Abd Wahid, 2021). The findings of this study, therefore, suggest that through collaboration, stakeholders can help to reduce the mismatch in training equipment through:

- Regular visits to various companies to verify if the students are exposed to appropriate equipment in line with the curriculum;
- Allowing students to visit the industry throughout the training period frequently;
- Encouraging donation of equipment to institutions by the industry; and
- Institution visits by the industry to verify if the institution's content aligns with what is required.

6.6.3 Improving graduate employability

Graduate employability, also known as work-readiness or career-readiness, is the ability to function effectively upon entering the workforce and across a range of contemporary working environments and also compete for employment and sustain a job; (Bridgstock & Jackson, 2019; Campbell & Price, 2016; Ismail & Mohammed, 2015; Jackson et al., 2017). While stakeholders were satisfied with the minimum basic skills possessed by TEVET graduates, they bemoaned the poor work culture or lack of professionalism exhibited by the students on industrial attachments or graduates.

The following aspects of work culture were identified as crucial and needed to be given adequate attention:

- Honesty;
- Precision;
- Respect for customers' privacy;
- Dress code;
- Time management;
- Customer service;
- Teachability; and
- Collaboration.

Additionally, stakeholders added that some skills, such as verbal presentation, report writing, and basic computer skills, should be given more attention. This finding corresponds with researchers who argue that in addition to basic skills and knowledge, graduate employability also focuses on other attributes acquired through training institutions that enable individuals to secure and maintain employment (Bridgstock & Jackson, 2019). To improve graduate employability, imparting these skills and attributes will thus require that training institutions and industry collaborate in a well-coordinated arrangement.

6.6.4 Improving pedagogy and work experience

A situational analysis and baseline study in the TEVET sector in Zambia revealed poor instruction quality because many lecturers lacked relevant and appropriate industry experience and pedagogical qualifications (Du Vivier, 2016). Similarly, my study established that not only do lecturers require sufficient exposure to the industry, but they also require academic and pedagogic upgrading. It was revealed that most lecturers in the construction programmes possess a craft certificate as the highest qualification in technical courses. To remedy this challenge, stakeholders suggested that the following actions could enhance collaboration between training institutions and the industry:

- Upgrade academic qualifications and pedagogic experiences for lecturers.
- Organise periodic CPDs with the industry to enable lecturers to familiarise

themselves with the ever-changing technologies.

- TEVETA should host orientation programmes each time a new training programme is introduced.
- TEVETA should ensure orientation programmes for advanced equipment by industry experts before the equipment is handed over to institutions for use by lecturers.
- Allow benchmarking by allowing lecturers to have frequent visitations to the industry. An activity that can be achieved by giving lecturers flexible working hours.
- Institutions should revise their timetables to accommodate industry visits and CPDs.

Stressing the need to improve the lecturer's pedagogic competence and work experience jointly, one of the lecturers noted:

I believe the best teacher is the one who remains a student for life. There is so much we can learn from these industries as lecturers. (PLC)

6.6.5 Saving resources

The study revealed that through strong liaison links between training institutions and industry, parties could save resources by leveraging each other's strengths and capacities to advance their agendas. The concept of leveraging implies that in addition to physical resources, time and labour could also be saved as stakeholders could delegate some work to each other. For instance, the standards officer suggested that TEVETA can delegate part of its inspection duties to standards officers in provincial education centres. That way, TEVETA would save resources meant to conduct such an exercise by reducing logistical costs. SET has also been used to explain the voluntary actions of individuals motivated by the returns they are expected to bring or get from an interaction (Blau, 2017). In this case, through collaboration, training institutions and the industry can benefit from each other's tangible and intangible resources (Muldoon et al., 2017) and avoid duplicating their work and expenses.

6.6.6 Enhancing sensitisation on TEVET programmes

The study revealed that construction courses such as building, plastering, carpentry and joinery face a noticeable inferior reputation resulting in very low enrolments. The low enrolments were also linked to a lack of sensitisation of the aim of TEVET, failure to secure high-paying jobs and poor marketing strategies by TEVETA. These findings imply that there is a need to use collaboration platforms to change the mindset of stakeholders on the objectives of TEVET concerning employment. Additionally, adverts on TEVET programmes must be realistic and be able to state the benefits of TEVET beyond graduates securing employment with existing companies. Stakeholders must know that TEVET aims to directly empower students with employable and potentially self-sustaining skills, knowledge, values and attitudes (Mulenga & Chileshe, 2020).

6.7 SUMMARY

In this chapter, I have discussed the role of collaborative activities and existing policies in reducing the prevailing TEVET skills gap. Also discussed is the importance of collaboration between TEVET institutions and industry in enhancing skills development. The discussion focussed on how TEVET stakeholders can utilise stakeholder satisfaction to strengthen their synergies. In Chapter 7, I present the conclusions and recommendations of the study.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

The aim of this study was to explore the role of collaboration between the Zambian TEVET institutions and the industry in enhancing skills development. The previous chapter discussed the findings of the study. The chapter focussed on identifying and examining the influence of collaborative activities on skills development, outlining, and analysing the recommendations by stakeholders on TEVET policy on collaboration between training institutions and industry, and establishing the importance of collaboration in enhancing the quality of skills development. In this chapter, I present the study's conclusions and recommendations by discussing the study's theoretical, methodological, and practical implications. I also present the study's limitations and provide suggestions for future research.

7.2 CONCLUSIONS

This study aimed to explore the role of collaboration between the Zambian TEVET institutions and the industry in enhancing skills development. The qualitative study explored the nature of interactions between TEVET institutions and industry by exploring existing collaborative activities, programmes, and policies using hermeneutic-phenomenology and the social exchange theory (SET). The following conclusions were arrived at on the four objectives which were stated:

7.2.1 Objective 1: To identify and describe the existing collaborative activities between TEVET institutions and the industry

As indicated in Section 6.3 and Figure 6.1, this study identified twelve (12) collaborative activities between Zambia TEVET institutions and the industry. These activities are: student placements, also referred to as industrial attachments, program funding, scholarships, improving academic and pedagogic competence, improving the work experience for graduate employers and lecturers, continuing professional development programmes (CPDs), sponsoring employees for further training, curriculum development and review, supply of teaching and learning materials,

employment opportunities, facility or infrastructure improvement and assessment of training. The study established that most of these collaborative activities were conducted through MOUs signed between TEVET institutions and the industry. However, most memoranda of understanding (MOUs) were unsuccessful for various reasons, including a lack of clearly defined policy guidelines, effective communication, benefits, commitment, transparency and trust, See Section 6.3.

7.2.2 Objective 2: To understand the influence of existing collaborative activities on the quality of skills acquired by the students

To understand the influence of existing collaborative activities on the quality of skills acquired by students, the study explored stakeholder perceptions on the quality of graduates, programmes and policies aimed at improving stakeholder satisfaction and established challenges in reducing the skills gap in TEVET. The study established that most stakeholders were either partially or not satisfied with the quality of graduates resulting from the huge skills gap reported by graduate employers (Section 5.5). The study revealed that TEVETA developed some programmes and policies to improve stakeholder satisfaction, namely TEVET learnership programmes, employer-based training, recognition of prior learning, TEVET rebranding, the skills development fund (SDF) and the constituency development fund (CDF) - refer to Section 5.5. Though the programmes and policies have managed to increase the number of TEVET-skilled personnel, there is a need for more coordinated efforts to improve the quality of skills using the same available programmes and policies. Challenges hindering the current programmes and policies from enhancing the quality of skills identified by this study are insufficient funding, lack of industry sensitisation by TEVETA, unbalanced collaboration benefits, over-enrolment of students in some programmes, weak links between TEVET institutions and industry, and failure to meet industry demands in some courses – see Section 6.4. Mitigating these challenges is thus key to improving the quality of skills development through collaboration between TEVET institutions and the industry.

7.2.3 Objective 3: To analyse the influence of existing policies on skills development on collaboration between TEVET institutions and industry.

To ensure the success of the collaboration between TEVET institutions and the industry, it is important to analyse the influence of existing policies on skills development. The study extensively discussed the existing policies on collaboration between TEVET institutions and industry, existing platforms for collaboration between TEVET institutions and industry, emerging challenges hindering successful collaboration, stakeholder proposals, and recommendations on how collaborations can be utilised to enhance skills development and reduce the current skills gap – see section 6.5. The study showed that existing policies directly influence the acceptability to collaborate and partners' commitment. For instance, failure to pay the SDL, denial of industrial attachment places and termination of memoranda of understanding (MOUs) without any notice by some companies exposed the need for clear policies on collaboration. Most challenges regarding collaborations on skills development stem from weak policies, which make it difficult for collaborations to be meaningful and sustainable.

7.2.4 Objective 4: To explore the importance of successful collaboration between TEVET institutions and the industry in enhancing skills development.

The study proved that collaboration is very important in enhancing the quality of skills development. The study highlighted several issues which make the industry a critical partner in enhancing the quality of skills development. Among the issues highlighted were industrial experience, the significant mismatch in training equipment between that which is found in institutions and that which is found in the industry, making graduates easily employable, improving TEVET pedagogy, saving resources through delegation, and changing the people's mindset about the value of TEVET programmes – see Section 6.6. Therefore, collaboration with the industry is important if TEVET institutions must produce the desired quality of graduates and reduce the skills gap in quality, quantity and academic or training level.

7.3 THEORETICAL IMPLICATIONS

It is vital to repeat what was stated in Chapter 3 that the study was neither aimed at testing a pre-existing hypothesis nor producing a new theory, but an attempt to add to the theories on human interactions. This being a hermeneutical phenomenological study, phenomenology was the study's primary philosophy. Since hermeneutic phenomenology can be combined with other theories (Peoples, 2020), this study also used social exchange theory (SET) on human interactions to interpret the findings, specifically, how human interactions can be developed and sustained. Hermeneutic phenomenology seeks to understand the deeper layers of human experience that are obscured beneath surface awareness and how the individual's lifeworld, or the world as he or she pre-reflectively experiences it, influences this experience (Neubauer et al., 2019). Similarly, SET seeks to explain how human interactions are influenced by expected intangible and tangible personal outcomes that would otherwise be difficult to achieve independently (Molm, 2006).

Using hermeneutic phenomenology and SET to interpret collaboration between Zambian TEVET stakeholders revealed that although most human interactions are developed based on expectations, they are primarily strengthened by the extent to which actors can trust the system governing the collaboration. The findings revealed that sufficient guidelines, benefits, incentives, communication, transparency and commitment determine the strength and sustainability of social exchanges. These findings suggest that expected benefits alone are insufficient in developing and sustaining collaborations, as the social exchange theory claims. For instance, social exchange theorists such as Blau (2017) and Molm (2006) posit that social exchanges are voluntary actions motivated by expected returns. However, as indicated in Figure 7. 1 below, this study found that returns or benefits are just one of several other requirements for an exchange or collaboration to thrive. This study's findings are similar to Gilliland et al. (2008), who noted that social exchange must be viewed as a manifestation of a trust-based social bond between two parties and not as a strategy for maximising self-interest.



Figure 7.1: Developing and maintaining sustained collaborations

Additionally, Corcoran (2013) argues that it is vital that actors in an exchange must endeavour to minimise uncertainty through building trust, repeating exchanges, improving the reputation and providing information regarding the exchanges and institutions involved. Building strong and sustainable exchanges must thus be guided by sufficient guidelines and shared information regarding the actors, which must not only stipulate benefits and incentives but also explain how conflicts will be resolved, transparency will be achieved, and commitment will be ensured.

As discussed in sub-section 6.3.9, the findings agree with Homans' key propositions of social behaviour regarding rewards and punishments: success, stimulus, value, deprivation-satiation and distributive justice (Cook et al., 2013; Homans, 1974). However, the study suggests that in addition to rewards and punishments, social behaviour is influenced by other factors such as guidelines and shared knowledge,

communication, transparency, and commitment. For instance, stakeholders complained of a lack of clear guidelines or policies to guide the collaborations, an absence of information regarding the stakeholders' products and services, a need for platforms for resolving conflicts, a lack of transparency and a high number of terminated memoranda of understanding. Therefore, this study suggests variables which can be added to the SET on human interactions over and above what has initially been assumed.

The study also confirms the assumption as outlined in the conceptual framework that stakeholder roles in the collaboration between TEVET institutions and industry must be guided by policies or social structure, which must clearly stipulate the administrative procedures for implementing collaborative activities. This was achieved by identifying and analysing stakeholder suggestions on how collaboration between TEVET institutions and industry must be managed to enhance the quality of skills development in Zambia.

Despite being similar to other local and international studies on collaboration between training institutions and industry, such as Mulenga and Chileshe (2020), (Ngozwana, 2018), Arinaitwe et al. (2022), Alexander et al. (2020), Mgonja (2017), Rybnicek and Königsgruber (2019), Raihan (2014), Papier et al. (2017) and Axmann et al. (2015), this study yielded more contextualised and diverse data on the Zambian TEVET system. By collecting and analysing data from varied contexts and groups of participants, confirmation of outliers was easily achieved. Combining phenomenology and social exchange theory in the analysis also resulted in very rich analyses, which helped to develop the intended contextualised guidelines on collaboration between TEVET stakeholders. Phenomenology helped to identify lived experiences of participants with collaboration and the social exchange theory helped to interpret these experiences. This suggests that, even with a limited number of participants, one can generate rich data and analyses. In this study, the diverse selection of participants based on economic context, grading of institutions and varied groups of stakeholders also helped to compare and integrate evolving themes and questions during data collection and confirmation.

Additionally, using conceptual and theoretical frameworks, enabled me to remain focused on stakeholders' lived experiences with collaboration while interpreting the findings. Since phenomenology is a philosophy on its own, as earlier indicated, using another theory to interpret the findings required that reliability strategies are well addressed to minimise the possibility of misinterpretation. Although using multiple frameworks may result in unnecessary complexity and redundancy, the practice helps researchers address multiple study purposes, levels, degrees of theoretical heritage and operationalisability if a specific focus on the study needs is achieved (Birken et al., 2017). Hence the decision to use multiple frameworks.

7.4 CONCEPTUALISATION OF COLLABORATION BETWEEN TEVET INSTITUTIONS AND INDUSTRY

Regarding the conceptual framework (see Figure 3.2), some revisions emanating from the data analysis have been captured in Figure 7.2 below. The framework was based on the premise that for collaboration between training institutions and industry to be successful, it must be guided by clearly outlined administrative procedures. In addition to the three policies initially identified, the data revealed that most collaborative activities were guided by memoranda of understanding (MoUs). It is therefore necessary that in addition to public, university/college and company policies, guidelines on MoUs must be clearly outlined. The data suggests that guidelines on MoUs are crucial in enforcing commitment, trust and conflict resolution among stakeholders in a collaboration.

This study's conceptual framework initially identified only seven (7) collaborative activities. These were student placements, program funding, scholarships, continuing professional development programmes (CPDs), curriculum development, employment opportunities, and institution facility improvement. However, the study revealed that there are other collaborative activities between Zambian TEVET institutions and the industry, which include:

- i. Sponsorship of employees for further training
- ii. Supply of teaching and learning materials
- iii. Assessment of training
- iv. Improving work experience

- v. Improving lecturers' academic and pedagogic competence
- vi. Instilling a positive attitude towards skills development
- vii. Generating funds for TEVET activities

The study further revealed that while all these activities were taking place at various levels, nothing much was happening regarding:

- a) Improving lecturers' academic and pedagogic competence and
- b) Instilling a positive attitude towards skills development.

Collaboration between companies and training institutions has been an increasingly important issue, and researchers have devoted considerable effort to finding the determinants of successful collaborations (Raihan, 2014; Rybníček & Königsgruber, 2018). Even though training institutions and industries pursue different objectives and face different constraints, the study suggests that collaboration between these entities is crucial to the success of both entities. While it is true that these differences in objectives and constraints either enhance the value of collaboration or become the source of complications in a collaboration (Rybníček & Königsgruber, 2018), the value of such collaborations in TEVET cannot be overemphasised. The study has highlighted several collaborative activities (see Figure 7.2), which cannot be ignored if the quality of TEVET skills has to be enhanced. The study has also suggested measures for resolving envisaged complications from the differences, such as improving communication and transparency (see Figure 7.1). Therefore, it can be concluded that the value of collaboration between TEVET institutions and industry outweighs the complications that may arise from the collaboration.

COLLABORATION BETWEEN TEVET INSTITUTIONS AND INDUSTRY

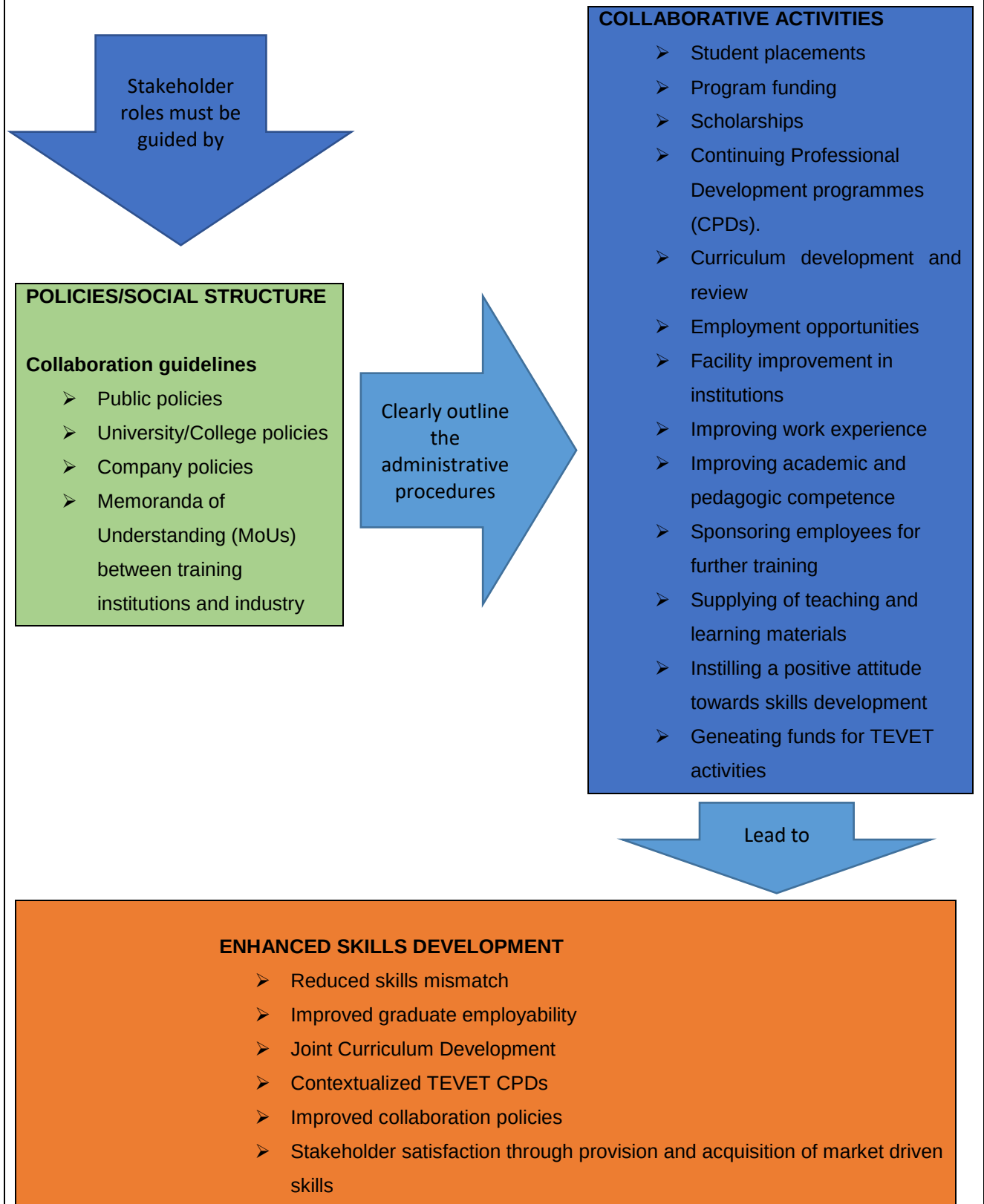


Figure 7.2: A revised framework for collaboration between TEVET institutions and industry

7.5 PRACTICAL IMPLICATIONS

Researchers have argued that for collaboration between TEVET institutions and industry to be successful, resources for industry engagement must be developed, encompassing partnership arrangements, best-practice supervision and feedback (Ferns et al., 2016). Additionally, the need for Zambia to develop contextualised policies on collaboration between TEVET institutions and industry, as stipulated by the International Labour Organization (ILO) (2017), has been highlighted throughout this study. To enable collaboration between TEVET institutions and the industry to enhance the quality of skills development in Zambia, the study suggests the following action points for TEVET stakeholders.

7.5.1 TEVET graduate employers

The study revealed that graduate employers were unwilling to help TEVET institutions procure equipment because they were already paying the skills development levy (SDL). As a result, they referred to the financial and equipment support institutions were soliciting from them through collaborations as double taxation. The employers also complained that they are not being informed of how the authorities in charge of the SDL were using the funds. To improve transparency in the use of SDL, the study recommends that the industry must take a keen interest in ensuring that authorities in charge of administering the SDL communicate with stakeholders by engaging them frequently. Financial reports on the SDL funds must be shared with the industry and other stakeholders, and stakeholders must be allowed to give input on how the funds must be utilised.

7.5.2 TEVET institutions administrators

The study established that some companies deny some students from getting attached to their companies because companies are overwhelmed by the huge numbers of students seeking places for industrial attachments. As such, they can only accept a limited number, depending on their capacities. To avoid overwhelming the industries, this study recommends that institutions and the industry jointly organise industrial attachments to avoid graduating students who have not been exposed to industrial attachments. The study also recommends that institutions should formulate

calendars for industrial attachments. Calendars would allow them to offload students for attachments to the industry simultaneously.

The study also established that some students do not fully benefit from industrial attachments because they are being attached to places which can only offer limited work experience. Therefore, the study recommends that selecting places for industrial attachments must be handled by personnel who are conversant with the curriculum and are knowledgeable about the expertise required by industries to which students are to be attached.

7.5.3 TEVET lecturers

The study revealed that most lecturers in Zambian TEVET institutions possess either a craft certificate, a diploma in practical courses or a degree in an academic course which is not even related to the courses they are lecturing. Secondly, most lecturers lack industry exposure, which negatively affects their ability to confidently teach certain practical components of the curriculum. To improve the quality of training methods, this study recommends that lecturers must continuously be exposed to continuing professional development programmes (CPDs) and industrial attachments so that they can improve their teaching practice.

7.5.4 TEVET policy developers

TEVET stakeholders complained about a lack of compliance measures. As such, companies could cancel MOUs without informing the involved institutions. Another complaint was that not all companies pay the SDL. Owing to these findings, this study suggests that policies on TEVET must include strict compliance measures on collaboration to ensure commitment to collaborative activities and programmes by all actors in the partnership.

7.6 SUGGESTIONS FOR FUTURE RESEARCH

This study established that stakeholders had diverse views on how TEVET institutions and industry collaborations must be managed. However, since the sample size was small and the findings cannot be generalised, a broader mixed methods study on the management of collaborations between TEVET institutions and industry must be

conducted. Future research must include the different programmes offered by TEVET institutions and not only be limited to construction skills. Additionally, while this study endeavoured to explain how successful collaborations can be developed and sustained, the data collected explained more on how they can be sustained than how they must be developed. Further research must thus consider exploring the possible ways of developing collaborations in technical and vocational training.

7.7 LIMITATIONS OF THE STUDY

The study had two major limitations related to the choice of methodology and area of research that relate to the generalisability of the findings. The research could have been strengthened if a mixed methods approach had been utilised by triangulating the findings of this phenomenological study with a survey to enhance generalisability. Secondly, due to the limited number of participants dictated by the research design, which is phenomenology, the study area was limited to TEVET construction courses only. However, to ensure that the findings represent the experiences of varied communities in similar contexts, careful consideration was given to the economic statuses of the provinces from which the institutions were selected. The study also considered the variety of construction courses offered in TEVET institutions.

7.8 CONCLUDING REMARKS

This study explored the role of collaboration between the Zambian TEVET institutions and the industry in enhancing skills development. The study identified and described several existing collaborative activities, programmes and policies aimed at enhancing skills development in the TEVET sector. The data revealed that enhancing skills development through collaboration will require that exchanges be guided by sufficient guidelines and information regarding the participating stakeholders, which must stipulate benefits and incentives and explain how conflicts will be resolved, transparency will be achieved, and commitment will be ensured. To this effect, the study has proposed several stakeholder roles which must be considered when developing policies and guidelines regarding collaboration between TEVET institutions and industry. This study's findings might benefit TEVET graduate employers, policymakers, institutional administrators and researchers, as stated in Section 7.4.

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ADDENDUMS

ADDENDUM A: CONSENT FORM

VOLUNTARY PARTICIPATION IN THE RESEARCH PROJECT ENTITLED

Exploring the Collaboration between the Zambian Technical Education, Vocational and Entrepreneurship Training Institutions and Industry.

I confirm that I have been informed about the nature of the research and that my rights have been explained to me. I have discussed the project with the researcher, Pilira Tembo, who is conducting the project for her Ph.D. Education Management, Law and Policy Studies degree and is being supervised by Dr André du Plessis in the Department of Education Management and Policy Studies at the University of Pretoria. I understand that if I consent to participate in this project, I will be interviewed either online or face to face depending on my preference of the mode.

I understand that I and my College's participation are dependent on granting permission for our participation by the Provincial Educational Officer (PEO) province and the Principal at College. I further declare that I have understood the aim, purpose, scope, benefits and methods of collecting information proposed by the researcher as they were fully explained to me by the researcher.

I understand that if I participate in this study my contribution will be kept confidential and will not be identifiable in any research report. I understand that I will remain anonymous and that my participation in this study is voluntary and willingly. I have the right to withdraw from the project at any time during the research project without being affected in any way.

I understand that by signing the consent form I am agreeing to participate in this study. I also understand that my contribution will be used primarily for a research project for

the PhD Education Management, Law and Policy Studies degree. I also understand that the data I provide can also be used confidentially and anonymously, for further research purposes, as the data sets are the intellectual property of the University of Pretoria. Further research may include secondary data analysis for research purposes only. The confidentiality and privacy applicable to this study will be binding on teaching and future research studies.

Participant's name: _____

Date: _____

Signature: _____

ADDENDUM B: INVITATION LETTER TO PARTICIPATE IN INDIVIDUAL INTERVIEWS AND FOCUS GROUP DISCUSSIONS

Dear Mr/Mrs/Ms

REF: Invitation to Participate in the Study- Exploring the collaboration between the Zambian Technical Education, Vocational and Entrepreneurship Training institutions and industry

I am presently registered for a Ph.D. degree in Education Management, Law and Policy at the University of Pretoria. Successful completion of a significant research project in the field of education is a major requirement for the award of this degree. The title of my approved research study is *exploring the collaboration between the Zambian Technical Education, Vocational and Entrepreneurship Training institutions and industry*. This study will be conducted at three (3) public TEVET institutions in Lusaka, Southern and Eastern provinces.

The purpose of this letter is to request that you kindly grant me permission to invite you, a TEVET stakeholder, to participate in this study. This study is aimed at exploring the role of collaboration between the Zambian TEVET institutions and industry in enhancing skills development. Hence, the purpose of this study is to generate literature that may inform policy development on collaborations between TEVET stakeholders.

I sought permission from the Provincial Education Officer, ... Province and the principals of participating TEVET institutions and managers of participating companies. It is my intention to gather the information I require from you through individual face to face interview or a focus group discussion. Due to the COVID-19 pandemic health guidelines, the focus group discussion will be conducted on an online platform via Google meet. However, individual interviews will be conducted either face to face or online depending on the participant's preference. Face-to-face interviews will be arranged in line with appropriate COVID-19 protocols by the World Health Organisation such as maintaining a social distance of at least 1.5 meters, wearing of face masks and sanitising. These interviews and focus group discussions will be conducted after

school or work hours and arranged at a time and or venue which is convenient to you. The sessions will be recorded for data analysis purposes. Face to face in-depth semi-structured interviews and online focus group discussions should last approximately 45 minutes and 90 minutes respectively. Participants will include only those who will give their consent to participate in the study.

As a participant in this study, your role will be to respond to questions put to you during the individual interviews or group discussions. You may ask questions of your own to clarify any issue concerning the interview or a matter that may arise during the interview. Data collected from this study will be kept strictly confidential, and neither the college nor the participants will be identifiable in any report. Where appropriate, pseudonyms will be used. To ensure that you are comfortable with the information you will give, you will be provided with a confidential electronic or written transcript of your own interview and will have final approval of both its accuracy and its content. The data collected will be used for research and academic purposes only. Additionally, you have the right to withdraw at any time during the research process without any consequence. I have included herewith, for your information, a schedule of questions for both sessions as part of the information gathering process.

With this study, I hope to bring to the fore relevant issues currently affecting successful collaboration between TEVET institutions and industry. The findings of this study could potentially be used by:

- TEVET graduate employers to gather information on their role in ensuring that TEVET training institutions produce graduates who will meet their labour needs.
- TEVET institution administrators to gather information on how best they can engage employers on critical issues such as curriculum development as well as on Continuing Professional Development programmes for their lecturers.
- TEVET policy developers to inform policy development on how collaborations between TEVET stakeholders must be managed. It may also help in outlining the specific roles that each of the stakeholders are expected to play in improving the quality of skills development.

- The study may also provide researchers with additional literature on the role of social structures and forces in enhancing educational interactions.

We also would like to request your permission to use the data confidentially and anonymously for further research purposes, as the data sets will be the intellectual property of the University of Pretoria. Further research may include secondary data analysis and using the data for teaching purposes. Kindly note that the confidentiality and privacy applicable to this study will be binding on future research studies.

If you decide to participate in this research study, kindly indicate this by completing the consent form at the end of this letter.

Yours in service of education,

Pilira Tembo

Student researcher

Dr André du Plessis

Supervisor

PERMISSION FOR RESEARCH

I, _____, hereby give permission to Pilira Tembo to include me as a participant in his research on **Exploring the Collaboration between the Zambian Technical Education, Vocational and Entrepreneurship Training Institutions and Industry.**

Category (tick one category only)

Individual Interview

☐

Focus Group Discussion

☐

Signature: _____ Date: _____

ADDENDUM C: PERMISSION LETTER TO THE COLLEGE PRINCIPAL

The Principal

.....

Dear

REF: Invitation to Participate in the Study: Exploring the Collaboration between the Zambian Technical Education, Vocational and Entrepreneurship Training Institutions and Industry.

I am presently registered for a Ph.D. degree in Education Management, Law and Policy at the University of Pretoria. Successful completion of a significant research project in the field of education is a major requirement for the award of this degree. The title of my approved research study is *exploring the collaboration between the Zambian technical education, vocational and entrepreneurship training institutions and industry*. This study will be conducted at three (3) public TEVET institutions in Lusaka, Southern and Eastern provinces.

My project supervisor is Dr André du Plessis who is a senior lecturer in the Department of Education Management and Policy Studies at the University of Pretoria. The study has been approved by the Ethics Committee of the Faculty of Education of the University of Pretoria and has been given the reference number_____.

The purpose of this letter is to request that you kindly grant me permission to invite you as an institutional administrator, the lecturers and students from your college to participate in this study. This study is aimed at exploring the role of collaboration between the Zambian TEVET institutions and industry in enhancing skills development. Hence, the purpose of this study is to generate literature that may inform policy development to guide meaningful collaborations between TEVET stakeholders.

The data will be gathered in two phases. Firstly, data will be collected through online or face to face interviews with college administrators followed by separate online focus group discussions with Lecturers and students. Face to face in-depth semi- structured interviews and online focus group discussions should last approximately 45 minutes

and 90 minutes respectively. Participants will include only those who will give their consent to participate in the study.

Data collected from this study will be kept strictly confidential, and neither the college nor the participants will be identifiable in any report. The data collected will be used for research and academic purposes only. Additionally, participants have the right to withdraw at any time during the research process without any consequence.

Only after I have received your approval, will I approach your institutional administrators, Lecturers and students to obtain their informed consent to participate in the study and agree on time for online or face-to-face interviews as per their convenience.

With this study I hope to bring to the fore relevant issues currently affecting successful collaboration between TEVET institutions and industry. The findings of this study could potentially be used by:

- TEVET graduate employers to gather information on their role in ensuring that TEVET training institutions produce graduates who will meet their labour needs.
- TEVET institution administrators to gather information on how best they can engage employers on critical issues such as curriculum development as well as on Continuing Professional Development programmes for their lecturers.
- TEVET policy developers to inform policy development on how collaborations between TEVET stakeholders must be managed. It may also help in outlining the specific roles that each of the stakeholders are expected to play in improving the quality of skills development.
- The study may also provide researchers with additional literature on the role of social structures and forces in enhancing educational interactions.

We also would like to request your permission to use the data confidentially and anonymously for further research purposes, as the data sets will be the intellectual property of the University of Pretoria. Further research may include secondary data analysis and using the data for teaching purposes. Kindly note that the confidentiality and privacy applicable to this study will be binding on future research studies.

If you decide to grant your permission for the administrators, Lecturers and students to participate in this research study, kindly indicate this by completing the consent form at the end of this letter.

Yours in service of education,

Pilira Tembo

Dr André du Plessis

Student researcher

Supervisor

PERMISSION FOR RESEARCH

I, ..., Principal of, hereby give permission to Pilira Tembo to include our college in her research on **collaboration between the Zambian technical education, vocational and entrepreneurship training institutions and industry.**

Signature: _____

Date: _____

ADDENDUM D: PERMISSION LETTER TO COMPANY ADMINISTRATORS

Name of Company

.....

Province

.....

Dear,

REF: Invitation to participate in a study- Exploring the collaboration between the Zambian Technical Education, Vocational and Entrepreneurship Training institutions and industry

I am a lecturer in the School of Education, Department of Educational Administration and Policy Studies at the University of Zambia. I am registered for a PhD in Education Management, Law and Policy at the University of Pretoria. Successful completion of a significant research project is an essential requirement for the award of this degree. My study aims to explore the role of collaboration between the Zambian TEVET institutions and the industry in enhancing skills development.

I write to seek permission to interview the Human Resource Officer or any other person in charge of training capable of responding to questions regarding collaboration between TEVET training institutions and the industry. Additionally, I request your permission to use the data confidentially and anonymously for research purposes.

Yours in service of education,

Pilira Tembo



Student researcher

Email: pilira.tembo@unza.zm ; u20697474@tuks.co.za

Contact #: +260 973895820

Academic Supervisor: Dr Andre du Plessis

Email: duplessis.andre@up.ac.za

ADDENDUM E: PERMISSION LETTER TO THE PROVINCIAL EDUCATION OFFICERS

The Provincial Education Officer

.....

Dear

REF: Invitation to Participate in the Study: Exploring the Collaboration between the Zambian Technical Education, Vocational and Entrepreneurship Training Institutions and Industry.

I am presently registered for a Ph. D. degree in Education Management, Law and Policy at the University of Pretoria. Successful completion of a significant research project in the field of education is a major requirement for the award of this degree. The title of my approved research study is *exploring the collaboration between the Zambian technical education, vocational and entrepreneurship training institutions and industry*. This study will be conducted at three (3) public TEVET institutions in Lusaka, Southern and Eastern provinces.

My project supervisor is Dr André du Plessis who is a senior lecturer in the Department of Education Management and Policy Studies at the University of Pretoria. The study has been approved by the Ethics Committee of the Faculty of Education of the University of Pretoria and has been given the reference number_____.

The purpose of this letter is to request that you kindly grant me permission to invite the TEVET institution administrators, lecturers and students from your province to participate in this study. This study is aimed at exploring the role of collaboration between the Zambian TEVET institutions and industry in enhancing skills development. Hence, the purpose of this study is to generate literature that may inform policy development to guide meaningful collaborations between TEVET stakeholders.

The data will be gathered in two phases. Firstly, data will be collected through online or face to face interviews with college administrators followed by separate online focus group discussions with Lecturers and students. Face to face in-depth semi- structured interviews and online focus group discussions should last approximately 45 minutes

and 90 minutes respectively. Participants will include only those who will give their consent to participate in the study.

Data collected from this study will be kept strictly confidential, and neither the college nor the participants will be identifiable in any report. The data collected will be used for research and academic purposes only. Additionally, participants have the right to withdraw at any time during the research process without any consequence.

Only after I have received your approval, will I approach your institutional administrators, Lecturers and students to obtain their informed consent to participate in the study and agree on time for online or face-to-face interviews as per their convenience.

With this study I hope to bring to the fore relevant issues currently affecting successful collaboration between TEVET institutions and industry. The findings of this study could potentially be used by:

- TEVET graduate employers to gather information on their role in ensuring that TEVET training institutions produce graduates who will meet their labour needs.
- TEVET institution administrators to gather information on how best they can engage employers on critical issues such as curriculum development as well as on Continuing Professional Development programmes for their lecturers.
- TEVET policy developers to inform policy development on how collaborations between TEVET stakeholders must be managed. It may also help in outlining the specific roles that each of the stakeholders are expected to play in improving the quality of skills development.
- The study may also provide researchers with additional literature on the role of social structures and forces in enhancing educational interactions.

We also would like to request your permission to use the data confidentially and anonymously for further research purposes, as the data sets will be the intellectual property of the University of Pretoria. Further research may include secondary data analysis and using the data for teaching purposes. Kindly note that the confidentiality and privacy applicable to this study will be binding on future research studies.

If you decide to grant your permission for the administrators, Lecturers and students to participate in this research study, kindly indicate this by completing the consent form at the end of this letter.

Yours in service of education,

Pilira Tembo

Dr André du Plessis

Student researcher

Supervisor

PERMISSION FOR RESEARCH

I, ..., the Provincial Education Officer Province, hereby give permission to Pilira Tembo to include our colleges in her research on **collaboration between the Zambian technical education, vocational and entrepreneurship training institutions and industry.**

Signature: _____

Date: _____

ADDENDUM F: FOCUS GROUP DISCUSSION WITH TEVET STUDENTS

EXPLORING THE COLLABORATION BETWEEN THE ZAMBIAN TECHNICAL EDUCATION, VOCATIONAL AND ENTREPRENEURSHIP TRAINING INSTITUTIONS AND INDUSTRY

Focus Group Discussion with TEVET Students

Facilitator's welcome, introduction and instructions to participants

Welcome and thank you for volunteering to take part in this focus group. You have been asked to participate as your point of view is important. Thank you for sparing some time to participate in this discussion despite your busy schedules.

Introduction: This focus group discussion is designed to explore the role of collaboration between Zambian TEVET institutions and industry in enhancing the quality of skills development programmes. I would like to ask for your permission to record the discussion.

Anonymity: Despite being recorded, I would like to assure you that the discussion will be anonymous. The recordings will be kept safely on my Google drive until they are transcribed and discarded. The transcribed notes will not contain any information that might link individual participants to specific statements. You should please try to answer and comment as accurately and truthfully as possible. To maintain confidentiality, I would appreciate it if we all shall refrain from discussing the comments of other group members outside the focus group. You are free not to respond to questions you are not comfortable with. However, I encourage everyone to fully participate for the discussion to be fruitful.

Ground rules

- The most important rule is that only one person speaks at a time. There may be a temptation to jump in when someone is talking but please wait until they have finished.
- There are no right or wrong answers.

- You do not have to speak in any particular order.
- When you do have something to say, please do so. There are many of you in the group and it is important that I obtain the views of each of you.
- You do not have to agree with the views of other people in the group.
- Does anyone have any questions?
- OK, let's begin.

Introductions

Firstly, I would like everyone to introduce themselves. Can you please tell us your name, name of your institution, area of specialization and number of years of experience in your current job?

Introductory question

I am just going to give you a couple of minutes to think about the meaning of collaboration in education provision. Who is ready to share his/her views?

GUIDING QUESTIONS

1. Industry satisfaction with quality of TEVET graduates

1.1 From your interactions with TEVET graduate employers, do you feel they are satisfied with the quality of graduates from Zambian TEVET institutions?
Kindly justify your answer.

2. Collaborative activities and their effect on skills development

2.1 What are your views on the role of TEVET institutions and the labour industry on the following aspects?

2.1.1 Student placements

2.1.2 Program funding

2.1.3 Scholarships

2.1.4 Supply of teaching and learning materials/ equipment to TEVET institutions.

2.1.5 Employment opportunities

2.1.6 Facility or infrastructure improvement

2.1.7 Quality assurance

2.1.8 Any other services not discussed.

3 Existing policy on collaboration with training institutions

3.1 Are you aware of any policies which guide the interactions between training institutions and the labour industry?

3.2 Who do you think should spearhead these interactions and why?

3.3 Would you describe the interactions between the labour industry and training institutions as adequate and meaningful? Kindly explain your response.

3.4 What are the key areas which you feel the training institutions should be consulted on by the labour industry? Kindly comment on your answer.

3.5 What are the key areas which you feel the labour industry should be consulted on by the training institutions? Please comment on your answer.

4 Importance of collaboration between training institutions and industry

4.1 From your interactions with TEVET institution administrators and graduate employers, do you feel collaboration is important in improving the quality of TEVET graduates? Kindly explain your response.

4.2 What platforms do you have for collaboration with TEVET institutions and labour industry to improve the quality of skills development programmes? How has this collaboration worked?

4.3 How confident are you that TEVET institutions in Zambia are delivering the needed expertise? Please explain your response.

4.4 What other areas of concern should be considered in order to improve the quality of skills development programs in this institution? Kindly explain your answer.

Conclusion:

- We have come to the end of the discussion.
- Do you have any questions or contributions?
- Your opinions will be a valuable asset to the study.
- I would like to remind you that any comments featuring in this report will be anonymous.

Thank you for volunteering your time!

ADDENDUM G: FOCUS GROUP DISCUSSION GUIDE WITH TEVET LECTURERS

EXPLORING THE COLLABORATION BETWEEN THE ZAMBIAN TECHNICAL EDUCATION, VOCATIONAL AND ENTREPRENEURSHIP TRAINING INSTITUTIONS, AND INDUSTRY

Focus Group Discussion with TEVET Lecturers

Facilitator's welcome, introduction and instructions to participants

Welcome and thank you for volunteering to take part in this focus group. You have been asked to participate as your point of view is important. Thank you for sparing some time to participate in this discussion despite your busy schedules.

Introduction: This focus group discussion is designed to explore the role of collaboration between Zambian TEVET institutions and industry in enhancing the quality of skills development programmes. I would like to ask for your permission to record the discussion.

Anonymity: Despite being recorded, I would like to assure you that the discussion will be anonymous. The recordings will be kept safely on my Google drive until they are transcribed and discarded. The transcribed notes will not contain any information that might link individual participants to specific statements. You should please try to answer and comment as accurately and truthfully as possible. To maintain confidentiality, I would appreciate it if we shall refrain from discussing the comments of other group members outside the focus group. You are free not to respond to questions you are not comfortable with. However, I encourage everyone to fully participate for the discussion to be fruitful.

Ground rules

- The most important rule is that only one person speaks at a time. There may be a temptation to jump in when someone is talking but please wait until they have finished.
- There are no right or wrong answers.

- You do not have to speak in any particular order.
- When you do have something to say, please do so. There are many of you in the group and it is important that I obtain the views of each of you.
- You do not have to agree with the views of other people in the group.
- Does anyone have any questions?
- OK, let's begin.

Introductions

Firstly, I would like everyone to introduce themselves. Can you please tell us your name, name of your institution, area of specialisation and number of years of experience in your current job?

Introductory question

I am just going to give you a couple of minutes to think about the importance of collaboration in education provision. Who is ready to share his/her views?

GUIDING QUESTIONS

1. Industry satisfaction with quality of TEVET graduates

1.1 From your interactions with TEVET graduate employers, do you feel they are satisfied with the quality of graduates from Zambian TEVET institutions? Kindly justify your answer.

2. Collaborative activities and their effect on skills development

2.1 What are your views on the role of TEVET institutions and the labour industry on the following aspects?

2.1.1 Stakeholder satisfaction through provision of market driven skills.

2.1.2 Improved employee experience (workspace, culture, and technology)

2.1.3 Improved academic and pedagogic competence

2.1.4 Joint curriculum development and revision

2.1.5 Contextualised TEVET Continuing Professional Development programmes.

3 Existing policy on collaboration with training institutions

3.1 Are you aware of any policies which guide the interactions between training institutions and the labour industry?

3.2 Who do you think should spearhead these interactions and why?

3.3 Would you describe the interactions between the labour industry and training institutions as adequate and meaningful? Kindly explain your response.

3.4 What do you think can be done to improve the quality of these interactions?

3.5 What are the key areas which you feel the training institutions should be consulted on by the labour industry? Please comment on your answer.

3.6 What are the key areas which you feel the labour industry should be consulted on by the training institutions? Please comment on your answer.

4 Importance of collaboration between training institutions and industry

4.1 From your interactions with TEVET institution administrators and graduate employers, do you feel collaboration is important in improving the quality of TEVET graduates? Kindly explain your response.

4.2 What platforms do you have for collaboration with TEVET institutions and labour industry to improve the quality of skills development programmes? How has this collaboration worked?

4.3 How confident are you that TEVET institutions in Zambia are delivering the needed expertise? Please explain your response.

4.4 What other areas of concern should be considered in order to improve the quality of skills development programs in this institution? Kindly explain your answer.

Conclusion:

- We have come to the end of the discussion.
- Do you have any questions or contributions?
- Your opinions will be a valuable asset to the study
- I would like to remind you that any comments featuring in this report will be anonymous

Thank you for volunteering your time!

ADDENDUM H: INTERVIEW GUIDE FOR TEVET INSTITUTIONAL ADMINISTRATORS AND GRADUATE EMPLOYERS

EXPLORING THE COLLABORATION BETWEEN THE ZAMBIAN TECHNICAL EDUCATION, VOCATIONAL AND ENTREPRENEURSHIP TRAINING INSTITUTIONS AND INDUSTRY

Interview Guide for TEVET Institutional Administrators

1. Bio data

- 1.1. Would you mind telling me your age, roughly?
- 1.2. Gender.....
- 1.3. Highest level of education attained.....
- 1.4. What is your area of specialisation?
- 1.5. What is your current administrative position?
- 1.6. For how long have you been in this position?

2. Industry satisfaction with quality of TEVET graduates

- 2.1 How would you rate the quality of graduates from TEVET institutions? Explain your rating.
- 2.2 Do you think they need further training? Kindly explain your answer.

3. Collaborative activities and their effect on skills development

- 3.1 Does your institution or company engage in any of the following collaborative services with the TEVET graduate employers? Please explain how the services are offered.
 - 3.1.1 Accept student placements
 - 3.1.2 Program funding
 - 3.1.3 Scholarships

- 3.1.4 Sponsor your employees for further training at TEVET institutions
- 3.1.5 Participate in the development and review of TEVET curricula
- 3.1.6 Supply teaching and learning materials/ equipment to TEVET institutions
- 3.1.7 Employment opportunities
- 3.1.8 Facility or infrastructure improvement
- 3.1.9 Assess the quality of training and provide direction
- 3.1.10 Any other services not discussed.

3.2 Explain the major challenges noticed during the collaboration.

3.3 How well do the parties in the collaboration respond to each other's challenges?
Explain your answer.

3.4 What else do you feel must be done in order to improve the quality of these services?

3.5 What incentives are in place to encourage the collaboration?

4. Existing policy on collaboration with training institutions

4.1 Do you have any institutional or governmental policies which guide your interactions with the training institutions? If yes, are you satisfied with the guidelines?

4.2 Who do you think must spearhead these interactions and why?

4.3 Would you describe your interactions with the labour industry as adequate and meaningful? Explain your response.

4.4 What do you think can be done to improve the quality of these interactions?

4.5 What are the key areas which you feel the training institutions should be consulted on by the labour industry? Explain why.

5. Importance of collaboration between training institutions and industry

5.1 From your experience with the students under Work- based training or internship, do you feel collaboration is important in improving the quality of TEVET graduates? Explain your response.

5.2 How confident are you that your institution is delivering the needed expertise? Explain your response.

5.3 What other areas of concern should be considered in order to improve the quality of skills development programs in this institution? Kindly explain your answer.

We have come to the end of the interview. Do you have any questions or contributions?

Thank you for volunteering your time!

ADDENDUM I: INTERVIEW GUIDE FOR TEVET STUDENTS

EXPLORING THE COLLABORATION BETWEEN THE ZAMBIAN TECHNICAL EDUCATION, VOCATIONAL AND ENTREPRENEURSHIP TRAINING INSTITUTIONS AND INDUSTRY

Interview Guide for TEVET Students

1. Bio data

1.1 Would you mind telling me your age, roughly?

1.2 Gender.....

1.3 What is your year of study?

1.4 What is your area of specialisation?

2. Industry satisfaction with quality of TEVET graduates

2.1 Kindly explain your experience as a student during your internship?

2.2 How satisfied were your employers during or after your internship? Kindly explain your rating.

2.3 Do you think you need further training? Kindly explain your answer.

3. Collaborative activities and their effect on skills development

3.1 What challenges did you face during the internship?

3.2 How do you suggest the internship should be handled?

3.3 Can you comment on the length of the internship?

3.4 Are there any other areas you feel should be improved on by the training institution?

3.5 Are there any other areas you feel should be improved on by your employer?

3.6 How have you benefited from this internship?

4. Importance of collaboration between training institutions and industry

4.1 From your experience as a student who has undergone both institutional-based and work-based training, do you feel collaboration is important in improving the quality of TEVET graduates? Please explain your response.

4.2 What other areas of concern should be considered in order to improve the quality of skills development programs in TEVET institutions? Kindly explain your answer.

We have come to the end of the interview. Do you have any questions or contributions?

Thank you for volunteering your time

ADDENDUM J: INTERVIEW GUIDE FOR THE TEVET STANDARDS OFFICER

EXPLORING THE COLLABORATION BETWEEN THE ZAMBIAN TECHNICAL EDUCATION, VOCATIONAL AND ENTREPRENEURSHIP TRAINING INSTITUTIONS AND INDUSTRY

Interview Guide for the TEVET Standards Officer

1. Bio data

- 1.1 Would you mind telling me your age, roughly?.....
- 1.2 Gender.....
- 1.3 Highest level of education attained.....
- 1.4 What is your area of specialisation?
- 1.5 What is your current administrative position?
- 1.6 For how long have you been in this position?

2. Industry satisfaction with quality of TEVET graduates

- 2.1 From your interactions with TEVET graduate employers, do you feel they are satisfied with the quality of graduates from Zambian TEVET institutions?
- 2.2 Do you think they need further training? Kindly explain your answer.

3. Collaborative activities and their effect on skills development

- 3.1 What steps has the Technical Education, Vocational and Entrepreneurship Training Authority taken in order to ensure the following through collaboration:
 - 3.1.1 Stakeholder satisfaction through provision of market driven skills.
 - 3.1.2 Improved work experience
 - 3.1.3 Improved academic and pedagogic competence
 - 3.1.4 Joint curriculum development and revision

3.1.5 Contextualized TEVET Continuing Professional Development programmes.

3.1.6 Improved collaboration policies

4. Existing policy on collaboration with training institutions

4.1 Do you have any policies which guide the interactions between training institutions and the labour industry? If yes, are you satisfied with the guidelines?

4.2 Who do you think must spearhead these interactions and why?

4.3 Would you please describe the interactions between the labour industry and training institutions as adequate and meaningful? Kindly explain your response.

4.4 What do you think can be done to improve the quality of these interactions?

4.5 What are the key areas which you feel the training institutions should be consulted on by the labour industry? Kindly explain why.

4.6 What are the key areas which you feel the training institutions should be consulted on by the labour industry? Please explain why.

4.7 What platform do you have for collaboration with TEVET institutions, public universities and industry to improve the quality of skills development programmes? How has this collaboration worked?

5. Importance of collaboration between training institutions and industry

5.1 From your interactions with TEVET institution administrators and graduate employers, do you feel collaboration is important in improving the quality of TEVET graduates? Kindly explain your response.

5.2 What platforms do you have for collaboration with TEVET institutions and labour industry to improve the quality of skills development programmes? How has this collaboration worked?

5.3 How confident are you that TEVET institutions in Zambia are delivering the needed expertise? Kindly explain your response.

5.4 What other areas of concern should be considered in order to improve the quality of skills development programs in this institution? Kindly explain your answer.

We have come to the end of the interview. Do you have any questions or contributions?

Thank you for volunteering your time!