INCLUSION OF LEANERS WITH HEARING IMPAIRMENTS IN VOCATIONAL SKILLS TRAINING PROGRAMMES: A CASE STUDY OF TABORA MUNICIPALITY, THE UNITED REPUBLIC OF TANZANIA

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DECLARATION

This thesis is my original work and has never been submitted for a degree in any other University;

Signature……Date …….

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APPROVAL

We as University supervisors confirm that the work was done by the candidate under our supervision

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ABSTRACT

This study investigated inclusion of learners with hearing impairments in vocational skills training in Tabora Municipality, United Republic of Tanzania. It was guided by three objectives; the vocational skills training programmes learners with hearing impairment are engaged in, the adaptability of the training methods to accommodate the learners with hearing impairment in inclusive setting and the opinions of learners with hearing impairments on the appropriateness of vocational skills training towards employability needs**.** The study was guided by two theories: A theory of vocational pedagogy and the social model of disability, both theories provide guidance on how inclusive of learners with hearing impairment can be attained in vocational training programmes. A qualitative research approach including a case design study was used. The target population was the tutors and learners with hearing impairment. Participants for the interview were purposefully selected to participate. The semi-structured interviews and observation methods were used in collecting the data. The data obtained was thematically analyzed to derive meaning from them. The findings revealed that there are few vocational skills training programmes in the vocational centers, this limits the opportunities for the trainee to select courses to enroll in. The financial support to vocational training skills centers is insufficient. It was also found that teaching was not adapted to meet the learning needs of learners with hearing impairment. The center does not use technology and assistive devices such as internet, computers in teaching. The study recommended that the government, through technical and vocational authorities and other educators, needs to offer appropriate support towards vocational training including appropriate tools and equipment, adequate financial assistance as well as other technological infrastructure which are modified to meet the needs of learners with hearing impairment.

LIST OF ACRONMYS

BEST:	Basic Education Statistics Tanzania
DFID:	Department for International Development
FDC:	Folk Development Centres
ILO:	International Labour Organization
IVST:	Inclusive Vocational Skills Training
MoEST:	Ministry of Education Science and Technology
NACTE:	National Council for Technical education
NBS:	National Bureau of Statistics
NSDC:	National Skills Development Council
OECD:	Organization for Economic Co-operation and Development
UNCRPD:	United Nations Convention on the Rights of Persons with Disabilities
UNESCO:	United Nations Education Scientific and Cultural Organization
URT:	United Republic of Tanzania
VETA:	Vocational Education and Training Authority

CHAPTER ONE

GENERAL INTRODUCTION

1.0 Introduction

This chapter introduces the study. It's arranged in six sections. Section one describes the background to the study. Section two is the statement of the research problem. Section three states the purpose, objectives and research questions. Section four explains the scope of the study and lastly, section five describes the significance of the study and section six the theoretical framework of the study.

1.1 Background to the study

Vocational training has a great importance to learners with hearing impairment in assisting them prepare for their future than it is to hearing youths. This is due to the fact that the majority of people with hearing impairment who do eventually find employment do so in vocational rather than professional fields (Vernon, 2022). Although there are no specific statistics, few learners with hearing impairment in Tanzania are accepted into higher education programs compared to the ordinary/ hearing learners.

According to UNESCO (2021) vocational education and training is a kind of learning capabilities that are pertinent to the workplace, that take place in a different learning situations, including formal, non-formal, and informal ones, and that happen in educational institutions or at the workplace. It includes both the initial skill development done by young people before entering the workforce and the ongoing

vocational training done by adults while they are working or during times when they are not actively engaged in economic activities.

Hearing impairment is the inability to hear well as compared to somebody with ordinary (normal) hearing, which is defined as hearing thresholds of 20 dB or better in both ears. It can affect one or both ears, and its severity can range from mild to moderately severe to profound (WHO, 2018). In this study Learners with hearing impairment refers stands for both deaf and hard of hearing learners.

Inclusive vocational skills training for learners with hearing impairment is one of the most effective tools for helping everyone in the community overcome obstacles and discover their responsibilities as contributing members of a society, regardless of their stage of life (UNESCO, 2015). It is an effective tool to promote self-esteem social integration, and togetherness. It is known as a way of developing the employment chances of persons with impairments (UNESCO, 2015).

Inclusive vocational skills training plays an essential aspect in providing of pathways to further learning or employment, as well as giving second chance of learning opportunities for those from under privileged experiences (*International Labour Organization* [ILO], 2014). Hargreaves, (2020) points out that those who have had the chance to develop marketable skills are more likely to find decent and productive employment. However, there is a lack of access to adequate skill training (ILO, 2012). Learners with hearing impairment have the same opportunity of access to inclusive vocational skills training education just as others. This is anchored on the Salamanca statement on inclusive education and framework of action, as well as

goal 4 of the Sustainable Development Goals, which calls for the removal of barriers to enable all students to learn regardless of their disabilities and attain vocational skills (UNESCO, 1994)

Globally, Learners with hearing impairment face challenges in the inclusive vocational skills training due to inadequate resources, learning environment, reasonable accommodation, communication, teaching methods, adequate preparation, carrier guidance, market driven approach and involvement of Persons with disability than their peers who do not have a hearing impairment in vocational training skills (ILO, 2015). Historically, exclusion was used around the world to provide education for individuals with disabilities with the same impairments. In today's world, inclusive education is regarded as the best option for students with disabilities (ILO, 2019). Inclusive vocational skills training fosters work- and life-related information, skills, and attitudes and is increasingly being taken into account while developing systems for education and training that emphasize lifelong learning. A vital element of the Convention on the Rights of Persons with Disabilities (CRPD) for education was the inclusion of learners with hearing impairment in sign language context with access to peers who use sign language and teachers who are knowledgeable in sign language (Murray et al., 2018).

According to statistical estimates, 1 billion people worldwide experience disability. This is equivalent to about 15% of the world's population, with up to 190 million (3.8%) persons aged 15 and older showing major functional impairments, requiring the use of medical services. A total of 466 million individuals, or 6% of the world's population, are deaf or have hearing impairment (WHO, 2021)

According to UNESCO (2016), people with disabilities including learners with hearing impairment have received traditional vocational training in sheltered, separated settings, particularly in Europe and Eurasia, that is, in settings where individuals with disabilities are concentrated and overseen or trained by people outside those groups It has begun to shift away from specialized institutions and toward mainstream programs offered by the government, service providers, non-governmental organizations, or private corporations (Kett, 2012). Inclusive vocational training entails more than just putting learners with disabilities in the same classroom. Training providers, who provide inclusive skills training must proactively accommodate persons with disabilities, modify the learning environment to make it accessible, and give support so that everyone may achieve (O'Reilly, 2007)

People with hearing impairment, who undergo vocational skills training are expected to be better equipped with skills to find respectable employment, which reduces poverty. Vocational skills training encompasses on-the-job training and professional development in a variety of professions. Inclusive vocational skills training serves as a link between education and employment, in addition to apprenticeships and other methods. It is less expensive to build up and operate inclusive training centers for all learners than it is to set up and maintain segregated institutions (TVET, 2020). Participating in inclusive vocational skills training programmers alongside their peers strengthens community attachment of students with disabilities (ILO, 2020). It is also concerned with the necessity of ensuring that vocational education and training relevant and connected to the workplace. ILO

gathered enough evidence to prove that the link between skill development and productivity is real. In accordance with UNCRPD Article 24, education must provide an inclusive system at all levels and be provided in the most suitable languages (Obura, 2021).

Inclusion for learners with disabilities including learners with hearing impairment requires teachers to modify their teaching methods to fit the needs of all students, Paloshi (2014). Students' progress well in inclusive vocational skills training more quickly when their needs are better satisfied and teachers engage them in a variety of activities that are well-used, allowing them to enjoy their learning and make good progress (Taylor, 2012). Techniques for supporting learners with hearing impairment should take into account the needs, usability, and flexibility. Video streaming, chat rooms, video conferencing, text adaption, and interactive and social technologies are some of the other options, Hashim, (2013).

In the United States of America, make a major contribution to growing a sustainable economy by increasing workers' productivity (Hornby, 2018). Similarly, Pilz & Regel (2021) adds that in the United States current attention is focused on inclusive vocational skills training and its relationship with economic competitiveness. OECD, (2010) emphasizes that inclusive vocational training skills is of particular important as it is superior to general education in terms of socialization and facilitating access to the labor markets as well as the removal of all obstacles to education and training for people with disabilities including with hearing impairment in participating in vocational training (European Commission, 2007).

In the United Kingdom, specialist colleges provide specific inclusive vocational skills emphasis for people with disabilities including learners with hearing impairment to improve economic participation Department for International Development (DFID, 2018), United Kingdom is capitalizing on implementing policies aimed at strengthening inclusive vocational skills training. (Hornby, 2015), insisting that vocational skills training in United Kingdom make a major contribution to a growing, sustainable economy and increases productivity.

In India, inclusive vocational skills training, focuses on imparting the functional skills to enhance individual occupational involvement and increasing firm productivity (Agrawal, 2013). Inclusive vocational skills training seems to be the secret behind China's rapid economic growth resulting from improved services at family level. Despite being complex and extensive, the Chinese Technical and Vocational Education Training (TVET) system is systematically designed to suit the needs of vocational education and training at various levels (Hao & Li, 2020).

Inclusive vocational skills training in China, focuses on delivering functional skills to increase individual occupational involvement and business output in India (Agrawal, 2013) inclusive vocational skills training appears to be the key to China's strong economic growth, which has resulted from increased family services (Hao & Li, 2020).

In Africa, the system in South Africa provides the critical intermediate higher level skills competencies in vocational skills training that the nation needs to set its course in the international competitiveness of the twenty-first century by providing

programs that promote knowledge, skills, and attitudes needed in the world market (Terblanche, 2017). In addition to direct employment, the value of vocational skills training lies in various results engagement, such as respect, engaged citizenship, and empowerment (Mehrotra, 2015). The value of vocational skills training is not only in employment but various outcomes engagement, such as respect, active citizenship, and empowerment, in addition to immediate employment.

Ghana recognizes numerous international conventions on the inclusion of people with hearing impairment, and the regulations governing education are deemed to all and recommended that those who did not succeed in school should continue with vocational training skills. Ocloo & Subbey (2014) to solve the problem of employment for Learners with hearing impairment, Gyamfi et al., (2019)

A study in Nigeria by Dasel and Marcus (2019), inclusive vocational skills training is a key to the lives of Learners with hearing impairment as it can be adapted to suit their needs and help them participate in economic life, opening up new chances for productive employment and suitably paid labour. In Kenya, the constitution, policies, and all the vocational training Act provision encourage the inclusion of people with disabilities into society as a whole (Malle, 2015). Learners with hearing impairment are included in inclusion vocational to be empowered by providing them appropriate access to ICT, assistive devices and services, digital skills, and more accessible and inclusive digital platforms to improve working conditions and productivity for the entire society Jahan (2021). All of the Vocational Training Act's provisions encourage the integration of people with disabilities into society as a whole.

In Uganda, inclusive vocational skills training is provided both in and out of school to all adolescents, including those with hearing impairment, with the purpose of equipping them with the skills they need to make a living. Ugandan youth are helped by inclusive vocational skills training to overcome unemployment, which is a big problem in the country. Young people in Uganda have struggled with life and need help in the form of vocational training that will give them with important information and skills (Foundation, 2019)

Tanzania introduced the National Skills Development Council (NSDC) which is implementing the Tanzania policy on education of 2014, under the Ministry of Education Science and Technology and the Prime Minister's Office, Labour, Youth, Employment, and Persons with Disabilities (PMO-LYED). Tanzania government has been implementing Skill Development Strategy (NSDS) 2016/26 with the aims of strengthening national capacity for inclusive skills development with the support of World Bank through education and skills for productive jobs (ESPJ) which is led by the MoEST (ILO, 2019).

The British government historically established two trade schools in Tanzania in the 1950s, Ifunda and Moshi, offering a variety of trades with the intention of providing services to colonialists in accordance with their interests (URT, 1995). Since that time, the vocational training has undergone some changes. Vocational education and training were made legal in 1974, enhancing the formation of the National Vocational Training Division in the Ministry of Labor. Later, in 1994, the vocational education and training authority (VETA), this operates under the ministry of

education, science, and technology, was founded as a result of insufficiency of the division.

Technical and Vocational Education Training (TVET) is divided in two categories: Technical education and Training (TET) and Vocational Education and Training (VET), both are considered as formal, whereby TET is regulated by National Council for Technical education (NACTE). VET is offered as both formal and informal programmes and coordinated and regulated by Vocational Education and Training Authority (VETA), (MoEST, 2021). Tanzania has a number of informal small centres for the training of vocational skills in addition to its formal institutions. These include small workshops for welding, garages for mechanics and tailoring for short-term training in rural and urban areas. Depending on where the trainer is located, informal training may sometimes take place within the home.

Tanzania's population, according to the National Census of 2012, was around 45 million people, including 3.6 million people with disabilities (PWDs). National Bureau of Statistics (NBS) (URT, 2019) reports, Tanzania has an estimated population of 536,038 people with hearing impairment. This equates to around 1.2% of the total population, and 55% of these are illiterate (Kisanga, 2019). These include many out-of-school youths who are not receiving any kind of education. In addition, basic education statistics in Tanzania (URT, 2019) indicate that the number of pupils with hearing impairment enrolled in Pre-Primary in 2019 stood at 497 (287 boys & 208 girls); 7,809 pupils were enrolled in primary school (4,178 boys & 3,631 girls); while 1,555 students were enrolled in secondary school (751 boys and 804 girls)

(URT, 2019) Unfortunately, only 26 students completed Advanced Certificate of Secondary Education Examination (ACSEE) (5 boys and 21 girls).

Tabora Municipality has a vocational training institution established in 1978 by the Roman Catholic Church in collaboration with the Tanzania government, fifteen years after, Tabora School for the Deaf was established for the purpose of admitting those who did not continue with secondary education. Boys and girls are enrolled in the three-year programme, which includes tailoring, carpentry, cooking, and entrepreneurship. However, the centre is teaching other skills, especially business management and life skills. The centre has a total enrolment of students 32 and four 4 teachers. Initially, it enrolled students with hearing impairment until 2019, when it transitioned to inclusive education by enrolling students without disabilities. This was chosen since it is the oldest vocational training college in the country that has been providing vocational training to learners with hearing impairment. This study seeks to investigate the inclusion of people with hearing impairments in vocational skills in Tabora Municipality, Tanzania.

1.2. Statement of the problem

Vocational skill training is one of the ways of producing skills among citizens for national development. It is also one of the methods for encouraging community members to be productive as well as achieving social cohesion, integration and self-esteem UNESCO (2016). In Tanzania, there are more than 822 vocational training centres intended to provide skills for national development (MoEST, 2021). However, only 2 are known to be admitting students with hearing impairments. Yet it is estimated that there are more than 536,038 learners with hearing impairments

in schools (Basic Education Statistics Tanzania (BEST) (URT, 2019). In schools, these learners face challenges of non-flexible curriculum, shortage of assistive devices, overcrowded classes, lack of adapted materials, shortage of special needs teachers and unfavourable physical environments.

Although, there are few studies that have been conducted in relation to the vocational skills training in Tanzania for learners with hearing impairment (Opini & Onditi, 2016; Possi & Milinga, 2017) and Mbogo, 2019), none of the fore-mentioned studies addressed the specific needs of vocational training skills for learners with hearing impairment. Despite, attempts by the government and other development partners, few people with hearing impairment have been able to access vocational training skills. This makes them dependants throughout their lives. This study therefore sought to investigate the inclusion of people with hearing impairments in vocational skills in Tabora Municipality, Tanzania.

1. 3 Purpose of the Study

The purpose of this study was to investigate the inclusion of learners with hearing impairments in vocational skills training in Tabora Municipality, United Republic of Tanzania.

1.3.1. Objectives

The objectives of the study were as follows:

1. To examine the vocational skills programmes learners with hearing impairment are engaged in, in Tabora Municipality, the United Republic of Tanzania.

2. To analyse the adaptability of the training methodology to accommodate the learners with hearing impairment in inclusive setting, in Tabora Municipality, the United Republic of Tanzania.
3. To explore the opinions of learners with hearing impairments on the appropriateness of vocational skills training towards meeting their employability needs.

1.3.2. Research Questions

The study was guided by the following research questions:

1. What are the vocational skills programmes Learners with hearing impairment are engaged in, in Tabora Municipality, the United Republic of Tanzania?
2. How is training methodology being adapted to accommodate Learners with hearing impairment, in Tabora Municipality, the United Republic of Tanzania?
3. What are the opinions of learners with hearing impairments on the appropriateness of vocational skills training towards meeting their employability needs in Tabora Municipality, the United Republic of Tanzania?

1.4 Scope of the Study

1.4.1 Content Scope

The study focused on the provision of vocational skills training to leaners with hearing impairments in an inclusive setting. In particular, it examined the vocational skills programmes, adaptability of training methods to accommodate the Learners with hearing impairment and appropriateness of the vocational training skills

towards employability needs of Learners with hearing impairment, in Tabora Municipality, the United Republic of Tanzania.

1.4.2 Geographical Scope

The research was conducted in one of the inclusive vocational skills training in Tabora Municipality, Tanzania, and was focused on Learners with hearing impairment, tutors, and District Special Needs Education Coordinator who were registered and are actively participating in training.

1.4.3 Time Scope

The study took place between August 2021 and June 2022.

1.5 Significance of the study

The study findings highlight the challenges inclusive vocational skills training faces in delivering suitable vocational programs for students with hearing impairments so they can find meaningful employment in the competitive market.

This would enable the Ministry of Education Science and Technology to deliver suitable support to the inclusive vocational skills training to improve training of vocational programmes to the learners with hearing impairment in inclusive settings. The results of the study would benefit vocational education and training authority in the country to ensure that vocational programmes benefit individuals with hearing impairment in inclusive settings. Also, the results of the study would enable policy makers to improve upon the tools and equipment, infrastructure, assistive devices and to provide adequate funding necessary to keep and offer

sufficient inclusive vocational training for the hearing impaired in inclusive settings. The results would more serve as useful information for researchers looking forward in the area of vocational skills training for persons with hearing impairment in inclusive setting.

1.6 Theoretical Framework

The study was guided by two theories: The Theory of Vocational Pedagogy and the Social Model of disability. The theory of vocational pedagogy offers a theoretical underpinning how to teach vocational skills (Lucas, 2012) While the social model of disability advocates for the removal of environmental barriers hindering the equal participation of people with disabilities in the community (Oliver, 2004). Therefore, both theoretical perspectives have insights useful in guiding inclusion of people with hearing impairment in the vocational skills training.

1.6.1. A Theory of Vocational Pedagogy

The theory of vocational pedagogy attributed by Lucas (2012), explained as the science, art, and skills of teaching that equips students for specific types of working lives. It is significantly influenced by the choices prepared by tutors, both complex methods and day-to-day "in-the-moment" decisions, as well as the values that guide all interactions with students. The theory of vocational pedagogy is intended to develop the value of teaching and learning in the vocational training. It was developed to comprehend how vocational teaching should be put into practice and how it will be valuable to the students in sharpening their skills and proficiencies, (Kapur, 2020). The evidence is vibrant that vocational education must be delivered

in the situation of real-world problem-solving and that a variety of instructional strategies are practically used in order to provide high-quality teaching

The theory holds that the greatest vocational education learning is primarily practical, experimental, and in real-world, in addition to using the teaching and learning methods, such as learning by watching, by imitating, by practicing (trial and error) by problem-solving through inquiry by thinking analytically, and producing knowledge by listening, transcribing, and remembering by drafting and sketching by writing by considering the needs of learners regardless of the age.

The theory is in line with the study because both aim to develop the excellence of teaching and learning in vocational training. The understanding of teaching and learning for tutors of learners with hearing impairments in the vocational training will assist the instructors in planning lessons and methods that will come across the essentials of all students, managing resources for the best vocational training, and engaging students in well-designed courses. The study is needed to understand how vocational skills can be taught to students with hearing impairment in an inclusive context while the theory is recommending for the appropriate teaching strategies which will fits all students.

1.6.2. The Social Model of Disability

The social model of disability views disability as a social issue not a medical or individual or a charity issue (Shakespeare and Watson, 2001) The model does not view disability as a limitation in the person's participation due to the person's physical, mental, sensory or intellectual impairment parse. The view that equates

disability to inability; known as the medical or individual model of disability. The social model of disability distinguishes between impairment and disability (Mercer, 2004: Barnes, 2012: Oliver, 1999:Shakespear, 2010) .It argues that people with impairments are not disabled by their impairments parse but by the actions and attitudes of society imposed on them (Oliver, 2004). Arguably, through the social model of disability view, the environmental barriers against the participation of people with hearing impairments can be highlighted for their removal. These barriers include social, attitudinal, physical, inaccessible information, ignorance, exclusive teaching approaches and lack of interpreters.

On vocational skills training for people with hearing impairments, the understanding of the social model of disability creates awareness to vocational skills training institutions to remove disabling barriers such as environmental, un-friendly teaching methods, attitudes and communication barriers which make it difficult or impossible for individuals with hearing impairments to equally participate in the institution's programmes. This can potentially lead the vocational training institutions to provide reasonable accommodation for people with hearing impairments in teaching, learning, community outreaches, sports and recreation and library services.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter discusses the relevant literature on the Inclusion of leaners with hearing impairment in the vocational skills training programmes. The chapter is arranged as follows: section 1: introduces the discussion; section 2: provides an overview of training and education of people with hearing impairment in Tanzania. Section 3 reviews literature relating to the vocational skills programmes learners with hearing impairment are engaged in. this is followed by section 4: the discussion of literature on adaptability of the training methods to accommodate learners with hearing impairment in inclusive setting and section 5: discuses literature on the opinion of people with hearing impairments on the appropriateness of vocational skills training towards their employability needs. Section 6: provides the summary of the key findings of the literature in relation to the research problem.

2.2 An Overview of Training and Education of People with Hearing in Tanzania

In Tanzania, people with disabilities appear to attend special schools, special units in mainstream schools or inclusive schools in primary, (Possi & Milinga, 2017). Compared to secondary school, the government put more effort to accommodate students with disabilities in primary school by providing special education teachers, learning and teaching materials, and enhanced infrastructure (*Institute of Development Studies* (IDS), 2020). The system of education for learners with

hearing impairment is (10; 4: 2:3 and above). Based on experience, in primary schools, students with hearing impairment spend 10 years in order to support them to learn sign language. Students who join secondary educations are very few and attend either special school, inclusive or ordinary schools. Students with hearing impairment take the national examination administered by Tanzania's national examination council, which is modified to meet their needs. Students may continue their study in postsecondary institutions after completing their secondary education, majority of students with hearing impairments enroll into Patandi teachers of special needs since it is where their needs are met.

Every district and municipal council in Tanzania have education officers responsible for disability who is in charge of making sure that enough funding and resources are set aside and made more accessible for students with impairments (FCS, 2017). Likewise, the country has four Ministries responsible for people with disabilities; including the Ministry of Education, Science, and Technology, which is in charge of formulating policies and preparing teachers in the fields of inclusion and special needs. The Prime Minister's Office – Labour, Youth, Employment and Persons with Disabilities (PMO-LYED) is in charge of training and employing people with disabilities who are out of school, and the ministry of health is in charge of the health issues of people with disabilities in and out of schools and. President's Office, Regional Administration and Local Government Tanzania (PO-RALG) is concerned with the implementation of policy of education and employs teachers in special schools and inclusive.

In Tanzania, visual impairment is the most prevalent form of disability, accounting for 1.9% of the population, followed by physical impairments 1.2%, hearing impairment 1%, intellectual impairment 0.9%, other 0.27, and albinism 0.04. Females have a greater overall disability rate than males do (NBS, 2015).

2.3 The Vocational Skills Programmes Learners with Hearing Impairment are engaged in

Vocational skills training programmes are most important element that enables learners with hearing impairment learn in inclusive settings, the training program supports in preparing learners to acquire skills they want to learn. Hargreaves (2020).Inclusive vocational skills training programmes facilitating inclusion because it aims at providing persons with skills that are immediately transferable to the workplace and obtaining employment. Inclusive vocational skills training may be needed to help in the removal of obstacles to future learning and to serve a variety of needs, in which case the training intervention may not necessarily lead to a stable job in the first instance.

Several studies have been done in relation to the inclusion of Learners with hearing impairment in vocational training programs in an inclusive setting.

A study by Paloshi (2015) on inclusion in secondary vocational education revealed that it is beneficial for Learners with hearing impairment to choose a programme such as farming, veterinary medicine, graphic design, textile and leather industry, chemical and technological industry, mechanical engineering, that do not necessitate oral communication abilities and customer interaction Since

communication is a two-way shared process, deaf and hearing people need clear, available communication, it is necessary to work in areas where communication is minimal in order to make life easier for everyone.

Brunello and Rocco (2017) carried out research on the effects of vocational education on adult skills, employment and wages. The findings showed that the teaching programme of basic skills in inclusive vocational skills training is essential, such as literacy, numeracy, and ICT, as these skills are required for an active and independent existence. Another skill is problem solving in technology, which is the capacity to gather and assess information, communicate with people, and complete practical tasks using digital technology, communication tools, and networks. Every skill a student learns will benefit both the student and the country; the skill is a means of enabling the student to become independent and contribute to the advancement of the national economy. Although some skills, like communication, interviewing, and self-expression skills, are challenging for people with hearing impairment, especially when they are used in an unfavorable context.

Another study by ILO (2013) on TVET reform: designing an inclusive skills development programme indicates that successful inclusive vocational skills training programme should be networking with industry. The industry is interested in hiring both Learners with hearing impairment and the hearing not only to fulfill its social responsibility obligations, but also because it makes excellent business sense. They must also be willing to collaborate with the college on a regular basis. Equally, to Hargreaves (2020) revealed that for effective programmes of inclusive vocational skills training, there should be integrated partnerships approach linked to

various services in and outside the institutions and career guidance, in which the individual's goals are supported and the development of life skills is promoted. Vocational training provides graduates with the skills to feed the industry with competent workers therefore, vocational training programs should link with the industry for high performance. In Tabora the vocational training is modified to match the needs of the industry by evaluating the market and providing career counseling. Teachers teach the new skills and use updated books and to make vocational training available for those who need it.

On the other hand Bin et al., (2015) on provision of workshop tools and equipment necessity for technical vocational education graduates skills acquisition observes that most vocational skills training institutions do not have enough tools and equipment and the results indicate that skills cannot be learned in a vacuum, but rather in a well-established and well-designed workshop with the appropriate tools, equipment, and machines for actual program application. (Mccubbins et al., 2016) adds that tools and equipment for workshops must be available for graduates of technical and vocational programs. For the reason that of the high quality of training provided, graduates are able to work competently in their chosen field without the requirement for pre-employment training. Equally, Tety (2016) points out that inadequate resources lead educators to approach courses in a theoretical manner.

In their study, Bulus & Dang (2015) on the impact of finance on the academic performance of secondary school students, the findings show that vocational training programmes must be funded enough because there is a link between financial resources and the success of vocational skills training programmes. They

also found that inadequate funding for institutions' operations makes it difficult to meet students' achievement goals in learning. The purchase of tools and equipment, educational materials, technology, assistive devices, and administrative expenditures all require funds. An institution with limited resources can find it challenging to manage a program, and students might not be successful in developing the requisite skills.

Likewise, Jury et al., (2021) conducted a study on attitudes toward inclusive education and observed that special education teachers are more inclusively minded than general teachers. The finding indicates that positive attitudes are required to address the challenges of inclusive in vocational skills training for learners with hearing impairment. Jury et al., (2021) added that in a context where students with hearing impairment are included, special education teachers have a favorable attitude than general teachers. Similar to how (Lee & Pott, 2018) revealed that negative attitudes towards people with hearing impairment hinder their educational opportunities, vocational ambitions and interpersonal relationship. This may be caused by a lack of awareness and educational chances to learn about learners with hearing impairment. (Lee & Pott, 2018) added that students who were taking a course in sign language demonstrated more favorable opinions about deaf people than students who weren't.

2.4 The Adaptability of the Training Methodology to Accommodate the Learners with Hearing Impairment in Inclusive Setting

Teaching is one of the most creative and an innovative job as there is no one-size-fits-all approach to provide education as a service while taking into account the

biological, environmental, cultural, and personal preferences of each individual. As a result, the most committed teachers modify their pedagogical approaches to accommodate the diverse learning needs of their students. Hashim, 2014) suggests that, methods of facilitating learners with hearing impairment should consider the needs, usability and adaptability. Likewise, (Colclasure et al., 2016) claim that adaptive methods are strategy used to help students with different learning diversity, aptitudes, or personal differences reach a same educational objective.

The study conducted by Miesera and Gebhardt (2018) on inclusive vocational schools in Canada and Germany and the findings have been revealed that technology can be applied in the inclusive vocational skills training such as using interactive whiteboards, which allow teachers and students to cooperate with others in a number of ways. Technology such as television and captioned text, classroom captioning, also known as real-time voice to text, generates text as a teacher or classmate speaks it and displays it. Likewise, the World Wide Web is a technology that enables the distribution of educational materials as well as support for online and out-of-class learning. Similarly, iPads, smartphones, and other technologies help inclusive vocational skills training students with hearing impairment. Kapur (2020) found out that in today's world, both hearing-impaired and hearing students use technology to complete homework, projects, and reports, among other things. The Internet is making an enormous contribution to providing skills with knowledge on a variety of issues. Likewise, (Kurniawan & Wijayanti, 2020) point out that visual multimedia with full language is very suitable if used at every chance. Also, Jahan (2021) insist on appropriate access to ICT, assistive devices, and digital skills in

inclusive vocational skills training creates more accessible and inclusive digital platforms for all learners,. Equally, (Shezi & Ade-ibijola, 2020) suggest that integrating technology into inclusive vocational skills training is an excellent way to actively engage Learners with hearing impairment, particularly as digital media becomes more pervasive. Technology has a significant impact on students with hearing impairment since it narrows the gap of unmet needs and it allows Learners with hearing impairment to share what is happening in daily life with hearing students.

In a study by Padhi (2021) on audio visual aids in education, the findings revealed that visual aids are effective instruments for making educational procedures more relevant for all learners including with hearing impairment. As well as, (Rasul et al., 2015) say that it provides learners with realistic experiences, which capture their attention and aid in understanding. Likewise, (Vatta, 2021) adds that when Learners with hearing impairment are given time to look at the visual content and take it in before you start speaking, will help them to understand better. These may be used for literate as well as illiterate people. Visual aids such as charts, slide projector, text books, print materials, models black and white board meets individual differences requirement, use of maximum senses, it retain more concepts permanent. In the same way, Krasavina et al., (2022) assert that teachers should prioritize visual information and avoid long texts when working with children with hearing impairments.

A study carried by Barwood et al., (2021) on professional teaching standards and inclusion in teacher education: insights from a hearing impaired found out that

learners with hearing impairment can study as regular students when taught by teachers who are fluent in sign language; learners with hearing impairment struggled to study due to a mismatch between teachers' approaches and students' learning needs. (Rock et al., n.d.) Suggested interpreters are encouraged to comprehend equality in inclusive learning and take part in proactive initiatives to achieve it.

In a study by Jiménez-Arberas & Díez (2021) on psychosocial impact of assistive devices and other technologies on deaf and hard of hearing, the results show that wearing hearing aids led to higher levels of satisfaction, enhanced quality of life, and increased self-esteem. Increase sociability and emotional control, as well as better social and emotional wellbeing. Similarly, Jahan (2021) reveals that access to assistive devices, and digital skills in inclusive vocational skills training creates more accessible and inclusive digital platforms for all learners, which has the potential to improve working conditions and productivity for the entire workforce, also increasing flexibility to future life. Equally, Farooq & Iftikhar (2015) point out that there is a clear difference in the learning achievements of students with hearing impairment who use assistive devices versus those who do not. (Farooq & Adil, 2015) explained that the cost, availability, training, and other related challenges are what prevent the majority of children with hearing impairment from using assistive devices. The majority of assistive devices in Tanzania are supported by non-governmental organizations, religious based institutions, and the government, people with hearing impairment may not use assistive devices because of improper assessment, competency of fitting hearing aids, availability, high cost, attitude and stigma.

2.5 The Opinions of Learners with Hearing Impairments on the Appropriateness of Vocational Skills Training Towards Employability Needs

The skill training is not for learners with disabilities every individual needs to acquire and apply a variety of skills in order to have a productive and meaningful working life. Both teachers and students are concerned about how to integrate knowledge and skills to prepare them for the workforce. Several studies have been done in relation to the opinions of students with hearing impairments on the appropriateness of vocational skills training towards employability needs.

A study by Commission (2018) on opinion on the future of vocational education and training post 2020, reveals that the goal of the vocational training system should be to provide excellent and inclusive education and training that offers opportunities for both financial and social unity, supports effectiveness and development, and fosters smart, inclusive, and sustainable development. It should also aim to help all individuals reach their full potential in a lifelong learning environment.

Another study by Barczak and Cannella-malone (2021) on self-management of vocational skills for people with significant intellectual disabilities revealed that learners in inclusive vocational skills training should develop employability skills and which include soft skills, such as personality, attitude, and behavior qualities that helps gain independence, self-management and interactions that have been used in the workplace. Similarly, Malle (2015) emphasizes that learning employability skills can apply in a place of work. Nugraha et al., (2020) observes that employers seek graduates who are technically proficient as well as possess essential employability skills. Likewise, Brunello & Rocco (2017) add employability skills

are non-technical skills that have helped graduates succeed in the workplace and find employment. Equally, Ross & Pagano (2018) highlight that trainers in vocational training should incorporate soft skills into their teaching of learners with hearing impairments, as already having issues in communicating with others.

In a study Fraser et al., (2019) on the impact of training programs in IVS, the findings show that Learners with hearing impairment needs assistance in finding job is critical not only for generating income, but also for positive life changes like increased confidence, social standing, and learning new skills, all of which have been used to remove barriers to work and support people with disabilities.

Likewise, Dasel & Marcus (2019) carried a study on vocational skills and its importance to persons with special needs in Nigeria whose results show that Learners with hearing impairment need assistance in finding employment because the majority of them are illiterate and unfamiliar of where to go to seek for work. Similarly, Bartram & Cavanagh (2019) explain that there is need to effectively involve and train employers, managers, supervisors, and coworkers in understanding Learners with hearing impairment. They should be taught about different types of disabilities and their needs, as well as how to engage those in employment, without this, employment for Learners with hearing impairment will remain elusive.

Equally, a study by Nopiah & Sattar (2018) on challenges faced by vocational teachers in public skills training institutions: a reality in Malaysia reveals that there is a need for high qualified tutors to impart high quality knowledge, skills, and

competences that are essential in vocational training for quality assurance in instruction of learners. Who builds positive relationship with the learners; motivates the learners, conducts lessons well with adequate knowledge. Likewise, (Pendidikan, 2019) insist that tutors who are needed to teach in vocational training are those with new skills that can be very different from those possessed by previous generations. To prepare for future changes, vocational tutors should thoroughly master new competencies. Moreover, (Commission, 2018), emphasize in order to produce high quality learning results, Vocational training should be taught by highly trained instructors and experienced trainers who are supported by initial and ongoing professional development (including digital skills and innovative teaching methodologies), Koichubekov & Kharin, (2018) which will result in the acquisition and development of intelligence, learning skills, attitudes, employment skills, and social independence.

2.6 Summary of the findings from Literature

The review has, however, identified gaps in the review presented above such as; some studies reviewed inclusion has been done in other level of education such as; primary, secondary, vocational training and tertiary level for learners with hearing impairment. However, the current study attempted to address this gap by focusing on inclusive vocational skills training for learners with hearing impairment only. Most of the studies reviewed were conducted generally on vocational training for persons with disabilities very few has been done for learners with hearing impairment. This study, therefore, addresses this gap by specifically focusing on Learners with hearing impairment in inclusive vocational skills training.

Additionally, those studies that dealt with vocational training concentrated on Learners with hearing impairment in technical training while this will deal with only hearing impaired in inclusive vocational training. This study directly addresses the gap by concentrating on inclusive vocational skills training as the approach for facilitating learning for learners with hearing impairment. Throughout the literature review, it was revealed that there is slight or almost no studies that have been carried out connecting to show how inclusive vocational skills training is done in Tanzania

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter describes the methodology that was applied during the study. It describes the research approach and design, location of the study, target population, sample and sampling procedure, research instruments, data collection, data analysis and ethical procedures that were taken into consideration.

3.2 Research Approach

This study thought in depth information regarding inclusion of Learners with hearing impairment in vocational skills training. Therefore, qualitative research approach is relevant to obtain opinions and experiences of the participants directly concerned in a natural setting. Qualitative research approach is defined as an inquiry that seeks to understand a given social phenomenon or research problem from the perspective of the local population involved (Farr, 2008). Qualitative research approach enabled the researcher to obtain specific information, study and build a holistic picture, and detailed views from the participants about inclusion of learners with hearing in vocation skills programme in a natural setting. It addresses the "how" and "why" questions and facilitate a greater knowledge of experiences, events, and context. It targets fewer places and smaller samples, but it covers a larger range of information and it is likely to produce richer data that can enhance the understanding of the subject.

3.3 Research Design

It is an appropriate way of collecting data from a single item with little need for massive data to be analyzed. The design preferred for this study was case study. The focus of a case study was on a single event, person, location, thing, organization, or unit (or if more than one, typically a small number). The most important thing was to recognize the case and its boundaries (Schoch, 2016); The case in this study was Tabora Municipality in Tanzania and was chosen because of its appropriateness for smaller sample sizes. The case study was used because it gives opportunity to have a thorough understanding of the subject in hand and decreases the possibility for any bias.

3.4 Area of Study

This study was carried out in Tabora Municipality in the United Republic of Tanzania. The district was purposively selected based on the fact that it is the place where vocational training centre for students with hearing impairment is located.

3.5 Population of Study

A population refers to the group of people who have at least one thing in common regarding the research issue, which are of concern to the researcher and to whom samples are taken for measurement, Majid, (2018). For purposes of this study, the population constituted of the staff of the Vocational Training centre, Learners with hearing impairment, district special needs education officer, as well as the director of vocational training at the ministry of education, science & technology. The total population of the study was thirty-nine (39) upon which the sample was drawn from.

3.6 Sample Size

A sample is a smaller group or subset of a larger population that is used to gather knowledge that is typical of the entire population being studied. According to Cohen et al., (2017), sample size is determined by what a researcher wants to know, the aim of the investigation, what is at stake, what would be valuable, what would have integrity, and what can be done with the time and resources available (Wellington, (2015). The sample size for this study is shown in the table below.

Table 1: Sample of participants

SN	Participants Category	Population size	Sample Size
1	Tutors	4	3
2	Learners	32	4
3	District Special Needs Officer	1	1
4	Director for Vocational Training Education	1	1
	Total	39	9

3.7. Sampling Technique

According to (Creswell, 2014), sampling technique is the act or strategy of choosing a suitable smaller population or a representative part of a population for the purpose of ascertaining parameters or characteristics of the entire population. To carry out this study, purposive sampling technique was applied. Purposive sampling is a non-probability type of sampling, in which the choice of units including individuals, groups,, documents, is based on the understanding of the research problem and phenomenon under study (Creswell, 2014). The participants to be interviewed were

purposively selected: the principle was involved because of his/her administrative and school management position; tutors were involved in the study based due to their long-time experiences of teaching learners with hearing impairment in vocational skills training. It was also useful to involve the learners from the third year because they had spent more time at the school but only those with a good command in sign language were selected. District Special Needs Education Officer was involved as the supervisor of special education issues; and the Director of Vocational and Training involved in the country's education and training policy.

3.8 Method of Data Collection

There are several methods of collecting data under qualitative approach such as interview, focus group and observation. This study used interview and observation methods.

3.8.1 Interview

An interview is a conversation for gathering information (Taylor, 2016). This gives the interviewer chance to use probes to elicit more depth information from the interviewee than any other method. The interviewee can volunteer to provide other information the researcher may have not planned to investigate. The data collected could be useful in augmenting the study findings. There are various types of interviews, namely:structured/standardized; semi-structured, unstructured or in-depth interviews (Cassell, 2020). To obtain data in this study, the researcher used semi-structured interviews using the interview guide to interview tutors, learners, district special needs education officer and director of vocational and training. The

interviews enabled the flexibility in selecting the questions to ask the participants and also enabled probing to make the information collected more accurate and useful.

3.8.2 Observations

Observation is the process of noting an event in a field setting using the observer's five senses (sight, touch, smell, hear and taste), frequently with an instrument, and recording it for scientific purposes (Creswell., 2014). In this study, observation was preferred since it provides a direct way of learning and in-depth explanation about people's behavior in the context as it occurs (Cothari, 1990). It entails observing what is going on in real-life situations, seeing how individuals respond, and then classifying and recording the information.

There are three forms of observation: participatory, indirect, non-participatory (Malgorzata Ciesielska & Öhlander, 2018). An observation checklist was used in this study. (Kawulich, 2015) an observation checklist is a list of things to look while observing a class. In the study the researcher observed the teaching and learning environment, organization of the workshop and supporting technology for learners with hearing impairment in inclusive setting.

During the observation, the researcher took the opportunity to record the information on the conditions of the centre such as nature of the buildings, size of the classrooms, sitting arrangements and the instructional materials which could have influences on the provision of inclusive vocational skills training.

3.9 Pilot Study

A pilot study is a small study that is carried out to help in the pretesting and retesting of the procedures or methods, the validity of its tools, and the recruitment of participants or the determination of the sample size (Arain, et al., 2010). It is carried out in order to see if it's feasible, it is typically used when a researcher wishes to learn more about a subject about which he or she has little or no knowledge (Kumar, 2011). The pilot study was carried at Kyambogo University with students with hearing impairment. It was carried out to pre-test the data collection tools in order to identify any possible faults in the questions as well as indicate whether or not the tool will work. The necessary changes to the questions in a tool were done accordingly so that I could collect accurate and trustworthy data for the primary study.

3.10. Data Collection Procedure

Before beginning the physical study, the supervisors and the Department of Special Needs Studies at Kyambogo University approved the proposal. The researcher received an authorization from the Head of Department to carry out the study, as well as an introductory letter which was used to seek permission for data collection from the church administration.

After getting authorization, the researcher wrote a personal request letter to the participants and then went to the chosen study area to meet the participants. The researcher requested for permission from the church administration to meet participants in order to present the expectations and obtain informed consent. Interviews with each participant were organized and completed after the researcher

and the participants reached an agreement. During the interview, the researcher audio-recorded the conversation while at the same time took notes. Meanwhile, the researcher took time to observe and examine the type of infrastructure where the inclusive vocational skills training was taking place in the institution.

3.11. Data Analysis and Presentation

Data analysis is the process of analyzing and interpreting raw data in order to derive meaning and pattern from it (Blackwell, 2020). This data collected was transcribed in Swahili first, then into English. Because the interview was done in Swahili, the raw data was translated from Swahili audio to English text format by a translator after every interview was done. To develop patterns, categories, and themes, the data transcribed from semi-structured interview schedules and observation was reviewed and subjected to inductive thematic data analysis. Data was transcribed and individually coded against themes obtained from the objectives. Searching for phrases and categorizing them into categories and subcategories that revealed common patterns. (Majumdar, 2022) thematic analysis is one of the most popular types of analysis used in qualitative research. It emphasizes identifying, analyzing and interpreting patterns of meaning within qualitative data (Taylor, 2016). When looking for themes, the researcher thought for recurring subjects pertinent to the study questions, patterned categories of material, and similarities and differences in the debate. Some direct quotations from participants were applied recorded in reported information gathered. The importance of reporting oral verbal accounts from research participants is crucial since it preserves the original data's taste (Blackwell, 2020) In addition, the researcher's opinions/comments on the responses

from participants' answers has been made, backed up by the literature examined in chapter two while codes have been used to safeguard the identity of participants where direct quotations have been utilized.

3.12. Ethical Considerations

Ethical considerations are an unavoidable part of the rigor of research, and adhering to these standards helps to preserve research participants' rights, build a sense of trustworthiness in them, and enhance research integrity. Research ethical consideration was observed at all stages of the study to promote credibility and authenticity, with special emphasis to permission and confidentiality of information to preserve the participants' image and privacy (Blackwell, 2020). In order to maintain these principles, participants were informed of purpose, duration, and how the data collected would be utilized, as well as their right to agree to participate or not. This study was therefore conducted with the consent of all participants, ensuring that they were aware of what was going on. Anonymity was observed by employing codes to safeguard the participants throughout data analysis. The cornerstone of study anonymity is that the information submitted by participants should not betray their identity in any manner (Kumar, 2011). The concepts in this study have been given in the researcher's own words, but where ideas from other sources have been utilized, proper acknowledgement has been made.

CHAPTER FOUR

DATA PRESENTATION, INTERPRETATION AND DISCUSSION OF THE FINDINGS

4.1 Introduction

This chapter presents, interprets and discusses the findings of the study. The study examined the Inclusion of Learners with Hearing Impairment in Vocational Skills Training in Tabora Municipality, Tanzania. It was guided by three objectives, to: examine the vocational skills programmes learners with hearing impairment are engaged in; analyse adaptability of the training methods to accommodate the learners with hearing impairment in inclusive setting and explore the opinions of learners with hearing impairments on the appropriateness of vocational skills training towards meeting their employability needs. This chapter is structured in three sections; Section one introduces the chapter, section two describes the participants' characteristics and section three presents, interprets and discusses findings as per the objectives of the study.

4.2 Description of Participants

The study targeted to interview eleven (11) participants, i.e. six (4) students, three tutors (3) and two (2) Administrators. However, nine (9) participants were interviewed. Two students with hearing impairment were not available during the time of interviews.

Table 2: Demographic characteristics of the participants

Category	Gender		Total
	Male	Female	
Students	2	2	4
Tutors	2	1	3
Administrators	1	1	2
Total	5	6	9

Source: Primary Data (2022)

For anonymity in reporting in this dissertation, participants have not been identified by their real names but have been assigned first letters derived from the category, each belongs as per the table above. For tutors, a letter (T) has been assigned to them and are being identified as T1, T2, and T3. For students, a letter (S) has been assigned to them and are being identified as S1, S2, S3 and S4. For administrators, letter (A) was assigned to them and are being identified as A1 and A2.

4.2.1 Description of Tutors

T1: He is hard of hearing, with Grade 1 Certificate in vocational training and with more than 15 years teaching experience in vocational training.

T2: She is hard of hearing, with Grade 1 Certificate in Vocational Training and has 10 years teaching experience in vocational training.

T3: He is a person without a disability, holds a Bachelor of Education (Special Needs) degree, and has 3 years of teaching experience and sign language interpreter.

4.2.2 Description of Administrators

A1: She holds Bachelor of Education (Special Needs) and experience of 6 years working as District Special Needs Education coordinator

A2: He has 4 years' experience in managing and directing Vocational Education and Training Programmes. He holds Master's Degree

4.2.3. Description of Students

S1: She is an 18-year-old, third-year student doing tailoring and is hard of hearing.

S2: She is a 21-year-old, third-year student doing tailoring and deaf.

S3: He is a 19-year-old, third year student doing carpentry and deaf

S4: He is 19 years old, third year student doing carpentry and is of hard of hearing

4.3 Overview of Vocational Training at Tabora Municipality

Formal education in Tanzania comprises of four levels: Pre-primary education lasts for 2 years; primary school for 7; secondary education has two levels: ordinary level lasts for 4 years; advanced level for 2; and higher education lasts for three years and above. Young people who finish their primary education but do not continue on, to high school may receive technical or vocational training.

Technical and Vocational Education Training (TVET) in Tanzania is divided in two categories: Technical Education and Training (TET) and Vocational Education and Training (VET) both are considered as formal. TET primarily trains those students who join from O-level, A-level and higher learning and is coordinated by National Council for Technical Education (NACTE). The program must be completed before certification can be granted; this can be done at the institutional or national level.

TET can award a Certificate, Diploma, Bachelor's Degree, Master's Degree, or Doctorate

For vocational education and training which is the main focus of this study, offers both formal and informal programmes. It is coordinated and regulated by Vocational Education and Training Authority (VETA). The formal VET programmes are being offered by Vocational Training Centres (VTCs) and award certificates in vocational training. The informal vocational skills training do not award certificates they aimed at developing and increasing vocational skills among people for self-employment, (MoEST, 2021).

Tanzania has 822 vocational skills training centers spread across the country, divided into three groups based on ownership either government, private or non-governmental but not for profit. The distribution by ownership of these vocational training centres is as follows: 392 privately owned vocational skills centers, 238 owned by the faith-based institutions, 69 are owned by the central governments and 123 are owned by a variety of different groups, including the local government. The awards gained out of these vocational training centres are either a certificate or diploma such as electrical engineering mechanical engineering civil engineering building and construction, architectural drawing, carpentry bricklaying/ masonry, workshop technology · surveying · motor vehicle mechanics painting and sign writing, plumbing, energy, information and technology, tourism and hospitality, transport and logistics, Ministry of Education, Science and Technology, (MoEST, 2021).

In Tabora region, the focus of this study, there are 14 vocational training centers; 3 of which are owned by faith-based institutions, 7 privately owned and 4 VETA centers. 2 vocational training centres in Tabora region are inclusive vocational training centers of which one is for learners with hearing impairments.

4.4 The Vocational Training Programmes Learners with Hearing Impairment are engaged in.

The study intended to know the vocational skills training programmes available for learners with hearing impairment and support provided for the delivering these programmes. The study also thought to find out about workshop tools and equipment and financial support to vocational skills training centers.

4.4.1 Vocational Training Programmes

The study sought to inquire the available vocational skills training programmes for learners with hearing impairment engaged in. This inquiry is based on fundamental fact that learners with hearing impairments struggle to attend vocational training programs due to their unique communication needs.

Four of the participants interviewed (2T'S, 1S and 1A) expressed that, the center offers few courses as such learners have a minimal option to select from. Participant (S3) stated:

> *I love masonry and painting but I have no option. Here, only carpentry and tailoring are available* (S3).

Another participant commented:

> *There are only two courses offered. In most cases males embark on carpentry and females strive for tailoring. We have never had a girl student enrolled in the carpentry department or a boy student being enrolled in the tailoring (T4)''*

A vocational skill training programme is critical for people with hearing impairment, according to the discussion. Learners perform well when the programme is well-selected and taught by personnel with high levels of education and skills; yet, learners do poorly when the programme is poorly chosen

The findings show that the institution does not provide learners with the opportunity to choose which programme they preferred to study; instead, they study what is already in place which may lead to low performance in the training. This is in line with Vernon (2022) who asserts that selection of the specific vocational skills training programme is chosen based on the skills and personal interests of people with hearing impairment and future career chances. It is in line with WB (2012) who adds, that training programmes in some developing countries are often providing skills that are not in high demand. It was supported by Hargreaves (2020) emphasizes that a well selected vocational programmes equips people with skills that are immediately relevant to the workplace and finding a job. In the same way Nagle et al., (2016) highlight that differences in course taking may reflect a learner's particular learning needs as well as different academic background knowledge. This therefore, means that many of the learners with hearing impairment may be receiving a low deal since they do not study what they are interested in. This may

contribute negatively towards practicing what they have learnt in their community. Thus, stakeholders at the vocational training institution ought to rethink about initiating more programmes tailored towards the needs of learners with hearing impairment.

4.4.2 Workshop tools and equipment

The study sought to find out how availability of workshop tools and equipment contribute to learning for learners with hearing impairment in inclusion in the vocational training skills. When participants were asked about the tools and equipment of the centre, they explained that the tools and equipment are important as it offers opportunities for practical training of learners in skill acquisition. This has been proved by participants (n = 3) who explained that tools and equipment such as sewing machine, carpentry tool kit, seesaw are not enough to facilitate learning for learners in inclusive settings. The following is a verbal quotation of one participant:

> *We are also faced with lack of enough tools and equipment as vocational training courses need to be undertaken practically while in some cases, we run short of learning and teaching materials. We need some items like: sowing machines, black veils and wood (T1).*

During the observation it was noticeable that learners at this institution did not only share carpentry equipment, but also sewing tools because machines were so few and some of the few available were not in working condition.

Findings from the study indicate that the center has insufficient tools and equipment. This is in line with Puyate (2018) who states that without sufficient learning

facilities, no meaningful occupational skills training can take place and without sufficient facilities, no vocational programme is complete. Similarly, Tety (2016) points out that lack of or inadequacy of tools and equipment causes tutors to treat subjects theoretically.

The training setting should be similar to the workplace. Teaching with actual materials/tools; and in real situations can help students learn more and improve their quality of life. Tools and equipment play a significant role in the success of any learning of vocational skills training while inadequacy of these important resources will impair the quality of learner's skills. Workshop tools and equipment are the foundation of every vocational training centre and play an important role in learning of practical skills. The Tanzania government should take into account its availability in inclusive vocational skills training. This will assist learners with hearing impairments in learning more effectively.

4.4.3 Financial Support

The researcher wanted to find out the availability and sources of financial resources to run the institutions and its contribution in training the inclusive settings. Financial support is given to an organization in order for it to continue operating, allowing all learners to access vocational skills training. The participants (n=3) however, responded that the funds received by the institution are not enough to run the programmes for all learners including Learners with hearing impairment. They explained that the programmes are good when they are fully funded because it would

help all learners to learn in the same environment without being left behind. The following verbal quotation is an example of what has been reported:

> *There are no extra funds set aside for this centre. The funds allocated by the government are for the all colleges countrywide and it is inclusive education that is given upper hand (A1).*

The study findings suggest that financing for inclusive occupational skills training is insufficient. This is in line with WHO (2012) which emphasizes that the main barrier in accessing vocational skills training is lack of funds. Which is supported by Dorléans (2018), who claims that availability of financial resources improves educational efficacy performance to the extent that it improves vocational skill training performance. Likewise, UNESCO (2014) points out that funds should be available for the purpose of investing on equipment, infrastructure, and consumables such as raw materials and spare parts can be used to improve training and drive innovation.

According to the discussion, Learners with hearing impairment can improve if they receive adequate financial support in inclusive vocational skills training and make good use of the available funds for tools and equipment, and infrastructure. It is very important that stakeholders such as the government of the United Republic of Tanzania and others realized that vocational training to a vulnerable group like learners with hearing impairment requires extra funding since their educational needs may exceed those of ordinary learners. Increasing grants to such an institution could go a long way in improving the training of these learners.

4.5 Adaptability of the Training methodology to Accommodate the Learners with Hearing Impairment in Inclusive Setting,

The study analysed adaptability of the training methods to accommodate the learners with hearing impairment in inclusive setting. The following were analysed; methods of teaching, use of technology, assistive devices, and skills of the tutors to teach inclusively.

4.5.1 Methods of Teaching

The study investigated how tutors apply methods in the whole process of teaching learners with hearing impairment in inclusive setting. Methods such as; the use of sign language, the use of interpreter, peer tutoring, the use of practical and fieldwork. Participants (n=4) said that;

> *most of the tutors involved in training vocational skills use methods that are not adapted to the needs of learners with hearing impairment.*

One of the participants explained:

> *Few tutors who are teaching learners with hearing impairment employ methods that are advantageous to all students in the classroom.* (T2).

According to the findings as discussed with tutors, tutors must consider the methods of teaching to respond to students' diverse and responding to the changing demands by varying lesson pace, modifying exercises for various pupils, or looking for other resources to more effectively explain or demonstrate essential themes; Adjusted learning will present more opportunities for teachers to engage with students and how their individual learning paths can be further tailored for better results.

The findings show that few of tutors in inclusive vocational skills training use appropriate teaching methods. This is in contrary to vocational pedagogy theory, which states that teachers must adapt their approaches to meet the needs of students and the circumstances in which they find themselves Also, it is contrary to Hashim (2013) who argues that methods of facilitating learners with hearing impairment in inclusive setting should consider the needs, usability and adaptability. Likewise, ILO (2016) suggests that learners in inclusion setting should be given opportunities to do sample jobs in a workshop. During the last phase of the course, the trainees should have an exposure visit, visiting a workplace

Tutors with Hearing impairment and ordinary tutors who specialize in teaching learners with hearing impairment ought to always use methods that are appropriate as stated above to teach in inclusive occupational skills training to learners with hearing impairment. This makes the training more effective than when general Tutors use them. This is something that should be encouraged among the tutors.

4.5.2 The use of Technology

The study was intended to find out how technology is adapted as in training methods to accommodate learners with hearing impairment in inclusive setting. The technology is a growing very rapidly in the field of vocational training, therefore teaching should also change to improve to meet the technological needs such as video captioning, interactive whiteboard, iPads, tablets, smart phones, images, television with captioning, and other gadgets. Participants (n = 3) said that little

technology was used in the institution to facilitate learners with hearing impairments in an inclusive vocational skills training. One participant commented that:

> *The institution's infrastructure allows the use of minimal technology because there is no internet, although we occasionally use our phones to Google important learning materials. (T3).*

The statements above suggest that the development of the internet and other technologies in the world has provided numerous chances to many individuals including those with hearing impairment all over the world in many ways. Learners with hearing impairment need to be equally literate in technology especially assistive technologies in order to contest in the changing job market, they require foundational skills in e-mail, Internet, and software applications by the time they graduate.

The finding indicated that there is little technology used in teaching learners with hearing impairment in an inclusive setting. This is in line with Dogruer et al (2011) who explains that not only the internet, but also other new digital technologies are important in the daily life. It is also supported by Stinson, (2018) who found out that computer and the World Wide Web allows the delivery of instructional content, support for participation in and out-of-class learning a learner can access on line learning. Equally, Kisanga (2017) findings revealed that technologies in today's world, learners with and without hearing impairment use technology to complete homework, projects, and reports, among other things. Similarly, Kurniawan and Wijayanti (2020) says that, the visual multimedia with full language is very useful if used at every opportunity.

Tanzania, like other countries, must go hand in hand with technological advancements because an individual cannot be employed without technological skills. In this case, the government should support technology advancements in inclusive vocational skill training to help graduates fit in the employment market on the basis of their training.

4.5.3 Assistive devices

The study went further to assess types of assistive devices which are available in inclusion for learners with hearing in vocational skills training. Assistive devices for hearing impairment help users hear and recognize voices better than they could with just hearing aids to make it possible for them to go about their everyday lives and take an active, useful part in communal life. Participants: (n = 2) admitted that there are inadequate assistive devices for learners with hearing impairment in inclusive setting. These are no devices such as hearing aids or cochlear, alert devices; plant Induction Loop Systems, Frequency Modulation (FM) system. For example, of participant verbal quotation: *Most of them do not use hearing aids. (T1)*

Assistive devices ensure that students with hearing impairments have equal access to vocational skills training as students without disabilities. Assistive devices enable tutors and students to fulfill the promise of vocational equally. It allows people to live healthy, productive, independent, and dignified lives while also allowing them to engage in vocational skills training.

The findings however, revealed that there are inadequate assistive devices for learners with hearing impairment. The findings also indicate that there has not been

any deliberate effort to make accessible assistive technology for use in the training of vocational skills to learners with hearing impairment. This could be as a result of shortage of funds for the installation of internet and other assistive technologies. This is contrary to, the social mode of disability that insists on removing any barriers that make it difficult or impossible for people with hearing impairments to participate equally in institutional programs. Likewise, on contrary to Farooq & Iftikhar (2015) who points out that there is a clear difference in the learning achievements of students with hearing impairment who use assistive devices versus those who do not. Likewise, Jiménez-Arberas & Díez (2021) who concluded that wearing hearing aids led to higher levels of satisfaction, enhanced quality of life, and increased self-esteem. Increase sociability and emotional control, as well as better social and emotional wellbeing, this is in line with the social mode of disability which insist to remove barriers such as communication barriers which make it difficult or impossible for individuals with hearing impairments to equally participate in the institution's programmes. Similarly to Jahan (2021) revealed that access to assistive devices, and digital skills in inclusive vocational skills training creates more accessible and inclusive digital platforms for all learners, which has the potential to improve working conditions and productivity for the entire workforce, also increasing flexibility to future life.

When students are actively participating in the learning process, best results are achieved. Assistive technologies support learners with hearing impairments participate more actively with assistive devices in learning. In Tabora Municipality,

there are few assistive devices to promote inclusive vocational skills training, which has an impact on their learning

4.5.4 The skills of tutors to teach in inclusive settings

The study sought to establish the contribution of skills of tutors in training learners with hearing impairment in inclusion setting. Vocational tutor is required for an efficient teaching and learning process in a skills training institution because the learning process in inclusion institutions entails the application of information into practice. Participants (n = 3) said that tutors of in inclusive vocational skills training have undergone a certificate level of training in vocational training at Morogoro teachers' vocational training college. One of the participants responded:

> *The Morogoro Teachers' Vocational Training College is well equipped with facilities to produce out teacher educators with optimum skills to offer inclusive education. However, plans are on the cards that will see the government producing enough teacher educators who will be able to train any student with diverse kinds of disabilities, noting however, that the government is set to allocate enough budget, to recruit enough teachers alongside having a good number of interpreters at each vocational training college that deals with students with hearing impairments by pushing for enabling environment for the deaf (A2).*

The findings suggest that many tutors are have limited skills required to teach in an inclusive setting.

The findings from this objective revealed that tutors have limited skills teaching in inclusive settings. This is contrary to Nopiah & Sattar (2018) there is a need for high qualified tutors to impart high quality knowledge, skills, and competences that

are essential in vocational training for quality assurance in instruction of learners. This builds positive rapport with the learners; inspires the learners, conducts lessons well with sufficient knowledge. Similarly, UNESCO (2015) asserts that a competent vocational tutor in inclusive settings normally shows the following attributes: establishes proficiency, knowledgeable, skillful, creates social network, and possesses respectable personality. Tutors' competence will have a favourable effect on learners' academic progress and skills, as well as assisting tutors in developing their teaching methods. It is therefore, incumbent upon the government to ensure that the tutors training vocational skills to learners with hearing impairment are empowered with appropriate skills through various avenues including in-service training opportunities among others.

4.5.5 Attitudes Towards Inclusion

Findings from the study reveal that tutors with hearing impairment and specialists have favorable attitude towards inclusion of learners with hearing impairment in vocational skill training. Promoting inclusivity helps ensure that people with disabilities receive equal opportunities and treatment at work. Access of persons with disabilities to quality employment as it is a fundamental human right and offers benefits to the economy. It was explained that some tutors perceived inclusion as better option for learners with hearing impairment Participants such as two tutors, one a student and one education officer, explained that positive attitudes contributes to learning for all learners. For example, one of the participants said:

> *The community wanted to integrate with people with hearing impairment in view of the fact that after completing their courses most of the deaf are likely*

> *to live in a community with people who are not impaired. Experience has shown that the deaf might face challenges when they stay with the non-deaf, therefore integration at earlier stages make them learn to cope with the environment (T1).*

In this light, teachers' attitudes toward inclusive education can be a significant factor in ensuring that inclusion is a reality for all learners. However, the infrastructure, working tools and equipment, teaching techniques, curriculum, and certain teachers are not inclusive,

The findings show that there are positive attitudes among tutors with hearing impairment and specialists teachers in vocational training skills training. This is in line with Jury et al., (2021) who argues that special education teachers have more positive attitudes than general teachers; It is supported by Kramer (2014) whose findings revealed that there were positive attitudes from both teacher and students towards inclusion of vocational skills training. This is in line with the social model of disability, which calls for the elimination of attitudes that prevent people with hearing impairments from participating. Similarly, ILO (2012) observes that learners with hearing impairment have the same access to inclusion in vocational skills training education as others. However, some individuals may benefit from the employment of a sign language interpreter, human resources, video captions, subtitles, and transcripts, which are either essential or beneficial to all. Positive attitudes are required to address the challenges of inclusive in vocational skills training. Teachers' attitudes are an important part of their professional competency since they have ability to influence everyone’s attitude. Everything is achievable

when the tutor's perspective is inclusive; this is why tutors who have never been inclusive have a negative attitude towards inclusive.

4.6 The Opinions of Learners with Hearing Impairments on the Appropriateness of Vocational Skills Training towards Meeting their Employability Needs

In this section, the study sought to find the opinions of learners with hearing impairments on the appropriateness of vocational skills training towards meeting their employability needs. The results show that all the 4 learners who participated in this study acknowledged that the vocational skills training offered by the vocational training centres are inappropriate to meet their employability skills. One participant commented:

> *Infrastructure needs to be improved, and enough resources should be available (S3).*

However, the entire 4 participant expressed that improvement is needed in the delivery of the training such as tools and equipment, infrastructure, funding, in-service training for the teachers, enough teachers

Despite learners with hearing impairment attaining the required vocational skills needed, they said that they have limited opportunities to be employed compared to their counterparts without hearing impairment

One participant commented;

> *Employers tend not to offer employment to job seekers with hearing impairments because they (employers) cannot communicate with job seekers*

with hearing impairments, even when they have the required vocational skills (S2).

There is an employment gap between people with hearing impairment and those who hear. Hearing impaired people have a very minimal chance of finding work after training than those without hearing impairment.

The findings from the study show that employment opportunities for learners with hearing impairment are limited. In connection to that Barczak and Cannella-malone (2021) says that learners in inclusive vocational skills training should develop employability skills, which include soft skills, such as personality, attitude, and behavior qualities that helps gain independence, self-management and interactions that have been used in the workplace. (Fraser et al., 2019) added that learners with hearing impairment should be assisted in finding work for generating income. Learners with hearing impairment have a higher chance of not completing their education cycle, as well as higher rates of unemployment and underemployment. Tanzania's governments have to devise special strategy for assisting persons with hearing impairment in surviving. Disparities should be taken into account in the curriculum

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter presents the summary, the conclusion and recommendations. It is guided by the research questions

5.2 Summary of the findings

The government of Tanzania supports both formal and non-formal vocational skills training through a policy of vocational training and support the implementation of this policy. Government has additionally establishment of a vocational training college in Morogoro to prepare teachers who will teach on vocational training centers however there are few teachers qualified to teach in vocational training center of learners with hearing impairment. The other challenge is that vocational skills training skills centers have inadequate equipment and materials. Sometimes the vocational training centers experience limited financially support from government.

According to the findings on the vocational skills programmes as obtained from the participants interviewed, the study revealed that vocational skills training programmes are few in the training centers. Therefore, learners have limited opportunities to select the ones they would prefer to study. Furthermore, the study indicated that workshop tools and equipment are available but insufficient in number, some of which were not in good working conditions. Additionally, the study found that financial support for inclusive skills training is insufficient, leading

to inadequacy of workshop tools and equipment, infrastructure, and poor-quality learning materials to facilitate vocational skills training for learners with hearing impairment. The study also showed that both learners and tutors who studied special need have a good attitude regarding inclusion of learners with hearing impairment in vocational training.

Likewise, there was minimum adaptation of training methods in teaching learners with hearing impairment. Coupled to that there was insufficient assistive devices for learners with hearing impairment.

The findings on the opinions revealed that vocational training for learners with hearing impairment should be based on providing excellent and inclusive education that offers opportunities for both financial and social unity; developing employability skills that can be applied in the place of work; and trainers ought to incorporate soft skills in their teaching. Lastly, learners with hearing impairment should be assisted in finding jobs because majority of them are unfamiliar of where to go and seek for employment as majority of them are either denied or given menial or poorly paid jobs; and that they should be taught by highly trained instructors and experienced tutors who are supported by digital skills and innovative teaching methodologies.

Apart from the findings from the participants' interview in this study, other studies have demonstrated that inclusive vocational training centres experience under performance in the vocational training sector and skill mismatches in the job market. Similarly, transition of hearing-impaired students from college to employment

remains a challenge. In a similar way, vocational training may help both youth with and without impairments improve their standard of living. Equally, learning environment where vocational skills training conducted are not encouraging learning for learners with disabilities

5.3 Conclusions

Programmes in the inclusive vocational skills training are few and therefore do not offer opportunity to learners with hearing impairment to choose the most appropriate for them.

Tutors in the vocational skills training use inappropriate teaching and learning methods in an inclusive classroom.

Workshop tools and equipment are available but insufficient in number, some of which are not in good working conditions.

Financial support for inclusive skills training is insufficient which leads to inadequacy of workshop tools and equipment, infrastructure, and poor-quality learning materials to facilitate vocational skills training for learners with hearing impairment.

The institution uses very low technology to assist learners in an inclusive setting, as there was no internet, computers, or other technology and in contrast, more people around the world are using technology.

Vocational skills training for learners with hearing impairment develop insufficient employability skills that can be applied in the place of work.

Training in inclusive vocational skills is provided by tutors with limited skills in teaching in an inclusive environment.

5.4 Recommendations

Based on the findings and conclusions, the study made the following recommendations:

The Ministry of Education, Science, and Technology, through vocational education and training authority needs to increase the number of vocational training programmes and the completion of programmes should be based on competence rather than time of participation for learners with hearing impairment in inclusive settings.

The government, through technical and vocational authorities and other educators, needs to offer appropriate support towards vocational training including appropriate tools and equipment, adequate financial assistance as well as other technological infrastructure which are modified to meet the needs of learners with hearing impairment. These would go a long way in facilitating vocational training in an inclusive environment.

The government should make assistive devices available to both teachers and students with hearing impairment by engaging other development partners to work together to fund inclusive vocational skills training.

The Ministry of Education, Science, and Technology needs to increase the number of skilled tutors in vocational skills training by ensuring that existing tutors receive in-service training to keep their knowledge up to date to improve successful

communication with the learners with hearing impairment as well as adapt the methodology to facilitate training of Learners with hearing impairment.

The Vocational Education Authority needs to ensure that the curriculum offered to learners with hearing impairment in an inclusive environment integrates employable skills to enable them compete in the job market.

Learners with hearing impairment need to be assisted in finding for them jobs since majority of them are unfamiliar of where to go to seek for work, since they are most likely to get poorly paid menial jobs

Incentives for skilled tutors who teach learners with hearing impairment need to be considered in order to attract, retain, and encourage tutors to give extra-time to the learners with hearing impairment.

5.5 Recommendation for Further Research

Future research should be done to determine how school- based vocational training and education may be provided for students with hearing impairments in schools. The school -based vocational option is normally viewed as a safety net for students who are less academically motivated and those who are at risk of dropping out of school.

REFERENCES

Agrawal, T. (2013). *Vocational education and training programs (VET): An Asian perspective*.

Barczak, M. A., & Cannella-malone, H. I. (2021). *Self-management of vocational skills for people with significant intellectual disabilities :A Systematic Review*. https://doi.org/10.1177/1744629520987768

Barnes, C. (2012). *Thes social Model of Disability: Valuable or irrelevant?* 12–29.

Bartram, T., & Cavanagh, J. (2019). Re-thinking vocational education and training: Creating Opportunities for Workers with Disability in Open Employment. *Journal of Vocational Education & Training*, *71*(3), 339–349. *https://doi.org/10.1080/13636820.2019.1638168*

Barwood, D.,et,al (2021). Professional teaching standards and inclusion in teacher education: *Insights from a Hearing- Impaired Health and Physical Education Pre- Service Teacher's Professional experience. Sport, Education and Society, 0(0), 1–15. https://doi.org/10.1080/13573322.2021.2004394*

Blackwell, W. (2020). Qualitative research methods*: Collecting Evidence, Crafting Analysis, Communicating Impact*. *http://www.wiley.com/go/tracy2e*

Brunello, G., & Rocco, L. (2017). The effects of vocational education on adult skills , Employment and Wages : *What can we learn from PIAAC ? series, 8(4), 315–343. https://doi.org/10.1007/s13209-017-0163-z*

Cedefop. (1995). The Changing nature and role of vocational education and training in Europe (*Issue October). https://doi.org/10.2801/532605*

(Cedefop. (2014). *From education to working life: Learning for*

Employability: *European Center for Development of Vocational training*

Ciesielska, M. (2018). *Observation Methods*. https://doi.org/10.1007/978-3-319-65442-3

Cohen, L., Manion, L., & Morrison, K. (2017). Research Methods in Education. *In Research Methods in Education*. https://doi.org/10.4324/9781315456539

Cothari, C. R. (1990). *Research Methodology: Methods and Techniques*. New age International (P) Limited, Publishers: New Delhi.

Creswell. J.W.(2014). Research design: qualitative, quantitative, and mixed methods approaches*;4th ed*.

Dasel, J., & Marcus, E. (2019). Vocational skills and its importance to persons with special needs in Nigeria. *Volume 4*,(December), 8–11.

DFID. (2018). *DFID's Strategy for Disability Inclusive Development 2018-23* (Issue December).

Dogruer, N., Eyyam, R., & Menevis, I. (2011). The use of the internet for educational purposes. *Procedia - Social and Behavioral Sciences*, *28*, 606–611. https://doi.org/10.1016/j.sbspro.2011.11.115

Dorléans, M. (2018). *Financing Vocational Education and Skills Development*. A Policy Area for ETF Support

Farooq, M. S., & Iftikhar, U. (2015). *L*earning through assistive devices *: A Case of Students with Hearing Impairment*. *37*(1), 1–17.

Fraser, E., Corby, N., & Meaney-Davis, J. (2019). Impact of training programmes for people with disabilities. sddirect.*Org.Uk*, 1–14. https://www.sddirect.org.uk/media/2219/

Galguera, M. P. (2018). Mass education and technical and vocational education and training*: Issues, Concerns and Prospects*. Springer

International Publishing AG, part of Springer Nature. http://www.springer.com/series/6969

García, M. A. (2016). Types of vocational and their use. *September*. https://www.researchgate.net/publication/242552190

Gay, L.R, G. E. M. P. A. (2012). *Educational Research: Competencies for analysis and applications*. Publisher: Kevin Davis.

Girgin, M. C., Uzuner, Y., Kaya, Z., Karasu, G., & Unluer, S. (2015). Current Status of Vocational Education Programs for Hearing Impaired Students in Kosovo. *20*, 177–186.

Gyamfi, N., Mprah, W. K., Edusei, A. K., Alexei, J., & Isaac, D. (2019). The relevance of vocational training programme for persons with disabilities in the Ashanti Region of Ghana. *2015, 1(2), 69-76, April*.

Hao, Y., & Li, P. (2020). Employment legal framework for persons with disabilities in China *: Effectiveness and Reasons*. *Int. J. Environ. Res. Public Health 2020, 17, 4976*.

Hargreaves. (2020). At a Glance at a glance. *Teachers' Pension Plan Annual Report*, *12*(3), 1–2. https://www.ippf.org/sites/default/files/2020-07/At a Glance 2019.pdf

Hashim, H. Tasir, Z & Mohamad, S.K. (2013). E-learning environment for hearing impaired students. *Volume 12 Issue 4 E-LEARNING*, *12*(4), 67–70.

Hornby, G. (2015). Inclusive special education: *Development of a new Theory for the Education of Children with Special Educational needs and Disabilities*. *British Journal of Special Education*, *42*(3), 234–256. https://doi.org/10.1111/1467-8578.12101

Hornby, G. (2018). *Inclusive Special Education : The Need for a New Theory Inclusive special education : development of a new theory for the*

education of children with special educational needs and disabilities. *April*. https://doi.org/10.1111/1467-8578.12101

ILO. (2008). Skills Development through Community Based Rehabilitation.

ILO. (2013). Inclusion of People with Disabilities in Vocational Training *:*

ILO. (2016). *I*ncluding Persons with Disabilities in Technical and Vocational Education and Training.

ILO. (2019). *S*tate of Skills. http://www.unicef.org/sowc2011/

ILO. (2020). Skills Development and Lifelong Learning Resource Guide for Workers' Organizations.

(ILO). (2012). Designing an inclusive skills development program TVET Reform.

Jahan, N. & Holloway, C. (2020), Barriers to access and retain formal employment for persons with disabilities in Bangladesh and Kenya. *GDI Hub Working Paper Series Issue 01*.

Jiménez-Arberas, E., & Díez, E. (2021). Psychosocial impact of assistive devices and other technologies on deaf and hard of hearing people. *International Journal of Environmental Research and Public Health*, *18*(14). https://doi.org/10.3390/ijerph18147259

Jury, M., Perrin, A. L., Rohmer, O., & Desombre, C. (2021). Attitudes Toward Inclusive Education: An Exploration of the Interaction Between Teachers' Status and Students' Type of Disability Within the French Context. *Frontiers in Education*, *6*(May), 1–7. https://doi.org/10.3389/feduc.2021.655356

Kapur, D. S. (2015). Understanding the characteristics of an adult learner. *Jamia Journal of Education-An International Biannual Publication*, *2*(1), 111–121. https://www.researchgate.net/publication/287488944

Kapur, R. (2020). Teaching-learning materials*: Significant in Facilitating the Teaching-Learning Processes*.

Kett, M. (2012). Youth and skills: Putting education to work; *Skills Development for Youth Living with Disabilities in four Developing Countries*. Paper commissioned for the EFA Global Monitoring Report 2012

Kisanga, S. E. (2017). *Educational barriers of students with sensory impairment and their coping strategies in tanzanian higher education institutions*. A Research Thesis Submitted for the PhD at Nottingham Trent University

Kramer, S. E. (2014). *Hearing impairment , work , and vocational enablement* https://doi.org/10.1080/14992020802310887

Kumar, R. (2011). *Research methodology: A step-by-step guide for beginners*. SAGE Publications Ltd 1 Oliver's Yard 55 City Road London EC1Y 1SP.

Kurniawan, V. R. B., & Wijayanti, D. (2020). The use of visual multimedia in moto cycle mechanics training for deaf students. https://doi.org/10.1088/1757-899X/830/3/032055

Lennard, E., & New, J. D. (2010). *Shakespeare , Tom . The Social Model of Disability ." The Disability Studies Reader . December 1974*.

Lucas, B. (2012). *How to teach vocational education : A theory of vocational pedagogy* (Issue January). https://doi.org/10.13140/2.1.3424.5928

Luştrea, A. (2017). *Educational communication and support technologies for deaf students*. *2*(2), 94–105.

Majid, U. (2018). *Research Fundamentals: Study Design, Population, and Sample Size* https://doi.org/10.26685/urncst.16

Malle, A. Y. (2015). *Inclusion of students with disabilities in formal vocational education programs in ethiopia*. *30*, 57–67.

Mbogo, A. R. (2019). Deaf learners teaching / learning of technical subjects.a study at tanga technical secondary school in Tanga region .A Research thesis submitted in (partial) fulfilment of the requirement for the degree of Masters of Education (Special Education) of the Sebastian Kolowa Memorial University (SEKOMU). *Tanzania*.

Mehrotra, S. (2015). China's Skill Development System *: Lessons for India in China. Lessons for India* (Issue January 2013). https://doi.org/10.13140/RG.2.1.1796.0482

Mercer, G & Barnes, C. (2004). Impemeting the social Model of disability:*Theory and Research*. *1*, 1–17.

Miesera, S., & Gebhardt, M. (2018). *Inclusive vocational schools in Canada and Germany . A comparison of vocational pre-service teachers ' attitudes , self-efficacy and experiences towards inclusive education*. *January*. https://doi.org/10.1080/08856257.2017.1421599

Ministry of Education,Science &Technology (MoEST), (2021). *Techonical Vocational Education &Training, Indicators report*.

Murray, J. J., De Meulder, M., & Le Maire, D. (2018). An education in sign language as a human right? The Sensory Exception in The Legislative History and Ongoing Interpretation of Article 24 of the UN Convention on the Rights of Persons with Disabilities. *Human Rights Quarterly*, *40*(1), 37–60. https://doi.org/10.1353/hrq.2018.0001

Nagle, K. Newman, L. A. Shaver, D. M., & Marschark, M. (2016). *Course Taking of DHH Secondary School Students 1*. *160*, 467–482.

Nguliamali, M. B. and Temu, E. B. (1995). Vocational education and skills training in mainland Tanzania for national development*: A Review of the*

Literature from a Historical Perspective. 112–140.

Nilholm, C. (2021). *Research about inclusive education in 2020; How can we improve our theories in order to change practice?*

Nopiah, M., & Sattar, M. (2018). *Challenges faced by vocational teachers in public skills training institutions : A Reality in Malaysia Challenges Faced by Vocational Teachers in Public Skills Training Institutions : A reality in Malaysia National University of Malaysia*. *December*. https://doi.org/10.30880/jtet.2018.10.02.002

Nugraha, D.H. Kencanasari, R.A. Komari,R.N & Kasda. (2020). Employability Skills in Technical Vocational Education and Training (TVET): I*nnovation of Vocational Technology Education* https://doi.org/10.17509/invotec.v16i1.23509

Obura, G. (2021). UNICEF Eastern and Southern Africa Regional Office*: Sign Language for Deaf Children's Education and Guidance on its Use in Accessible Digital Teaching & Learning Materials*. *September*.

Ocloo, M. A., & Subbey, M. (2014). Perception of basic education school teachers towards inclusive education in the Hohoe District of Ghana. *International Journal of Inclusive Education*, *12*(5–6), 639–650. https://doi.org/10.1080/13603110802377680

Oliver, M. (2004). An Ecological approach to modeling disability. *Bioethics*, *32*(9), 593–601. https://doi.org/10.1111/bioe.12497

Oliver, M. J. (1999). *Capitalism, disability and ideology: A Materialist Critique of the Normalization Principle*. *1*(16), 1–16. http://www.independentliving.org/docs3/oliver99.pdf

Opini, B., & Onditi, H. (2016). International Journal of Educational Studies*; Education For All And Students With Disabilities In Tanzanian*. *03*(02), 65–76.

Padhi, G. (2021). Audio visual aids in Education; Journal of Emerging Technologies and Innovative Research (JETIR). *Jetir*, *8*(4), 242–249. www.jetir.org.

Paloshi, A. I. (2015). Inclusion in secondary vocational education*: Handbook on working with special educational needs students*. British council Macedonia.

Panigrahi, S. (n.d.). Teaching strategies for hearing impaired students*: TheHigherEducation Review*. https://www.thehighereducationreview.com/news/teaching-strategies-for-hearing-impaired-students-nid-1180.html

Pilz, M., & Regel, J. (2021). *V*ocational education and training in india*: Prospects and Challenges from an Outside Perspective*. *1*, 101–121. https://doi.org/10.1177/0973801020976606

Possi, M. K., & Milinga, J. R. (2017). *Special and inclusive education in Tanzania : Reminiscing the Past , Building the Future Special and Inclusive Education in Tanzania*. *6*(4), 55–73. https://doi.org/10.22521/edupij.2017.64.4

Puyate, S. T. (2018). Manpower Development Through RelevantTechnology Education Curriculum For Sustainable Poverty Alleviation.

Rasul, S., Bukhsh, Q., & Batool, S. (2011). A study to analyze the effectiveness of audio visual aids in teaching learning process at uvniversity level. *Procedia - Social and Behavioral Sciences*, *28*, 78–81. https://doi.org/10.1016/j.sbspro.2011.11.016

Schoch, K. (2016). Case study research: The Scholar-Practitioner's Guide to Research Design. *The Scholar-Practitioner's Guide to Research Design,* 227–241. https://us.sagepub.com/sites/default/files/upm-assets/105275_

Shakespeare, T. and Watson, N. (2001). The social model of disability: An

outdated ideology? *Journal of the American Chemical Society*, *123*(10), 2176–2181. https://cursa.ihmc.us/rid=1R440PDZR-13G3T80-2W50/4. Pautas-para-evaluar-Estilos-de-Aprendizajes.pdf

Shezi, M., & Ade-ibijola, A. (2020). *Deaf Cha : A Speech-to-Text Communication Aid for Hearing Deficiency*. *5*(5), 826–833.

Steven J. Taylor, R. B. &Marjorie L. D. (2016). *Introduction to Qualitative Research Methods, a guidebook and resource*. Published by John Wiley & Sons, Inc., Hoboken, New Jersey: Published simultaneously in Canada. No.

Stinson, M. (2018). *Importance of Technology for Education of Deaf Students*. 2018. https://doi.org/10.1093/oso/9780190880545.003.0024

Taylor, A. (2012). *Elements of Excellence in Vocational Teaching and Learning in the Land-based*.

Terblanche, T. E. (2017). Technical and vocational education and training (TVET) colleges in South Africa*: A Framework for Leading Curriculum Change*. *Dissertation presented for the degree of Doctor in Philosophy in the Faculty of Education at Stellenbosch University.*

Tety, J. L. (2016). Role of Instructional Materials in Academic Performance in Community Secondary Schools in Rombo District.A Dissertation presented for the degree of Doctor in Philosophy in The Open University of Tanzania).

Technical and Vocational Education and Training. (2020). *Skills against Unemployment*. Disability-Inclusive TVE. Issue Brief *44*(October), 1–6.

United Nations Educational, Scientific and Cultural Organization (UNESCO), (1994). *The Salamanca statement framework. June*, 7–10.

United Nations Educational, Scientific and Cultural Organization (UNESCO), (1996). *Financing technical and vocational education :*

modalities and experiences.

United Nations Educational, Scientific and Cultural Organization (UNESCO), (2016). *Strategy for Technical and Vocational Education and Training (TVET)*.

United Nations Educational, Scientific and Cultural Organization (UNESCO), (2019). *UNESCO*.

UNEVOC. International Centre for Technical and Vocational Education and Training (2019). *Virtual conference on inclusive TVET*. *July 2019*, 1–16.

United Republic of Tanzania (URT), 2012), The Technical and Vocational Education and Training Policy, Dar es Salaam,.

United Republic of Tanzania (URT), (2017). The National Strategy for Inclusive Education. 1–44.

United Republic of Tanzania (URT). (2019). Tanzania in figures. *National Bureau of Statistics*, http://www.nbs.go.tz/nbs/takwimu/references/Tanzania_in_Figures_2015.pdf%0

United Republic of Tanzania (URT), (2019b). Pre-Primary, Primary, Secondary, Adult and Non-Formal Education Statistics.

Vernon, M. (2022). *Vocational Needs in Educational Programs for Deaf Youth Author (s): American Annals of the Deaf: https://w*. *111*(2), 444–451.

World Bank (WB), (2012). The Right skills for the Job*: Rethinking Training Policies for Workers*

Wellington, J. (2015). *Educational Research Contemporary Contemporary Issues and Practical Approaches*. Published by Bloomsbury Academic.

World Health Organization (WHO), (2012). World report on disability. *Irish Medical Journal*, *105*(5). https://doi.org/10.1111/j.1741-1130.2011.00320.x

World Health Organization (WHO), (2018). *Addressing the rising prevalence of hearing loss* (Issue February).

World Health Organization (WHO). (2021). World Health Orginization Repor*t*

APPENDICES

Appendix i: Interview guide for directors

My name is Ahiadu Sangoda. I am a Kyambogo University student in Uganda who is conducting research on inclusion of learners with hearing impairment vocational skills training. A case study of Igange vocational skills training in Tabora Municipality, Tanzania**.**

SECTION B: THE VOCATIONAL SKILLS PROGRAMMES

1. Can you please give brief background information on your duties in relation to vocational training for people with hearing impairment?
2. How many vocational training for persons with hearing impairment under the Ministry of education/Municipality?
3. How Does the Ministry of Education/Municipality provide funds for administering inclusion of learners with hearing impairment in vocational skills training?
4. How do the policies of education would help graduating students to starting they are own Employment?
5. What are the strategies for ensuring that skilled teachers are employed at the inclusive vocational training for people with hearing impairment?

SECTION C: ADAPTABILITY OF THE TRAINING METHODS

6. What strategies are in place to ensure that learners with hearing impairments learn the skills they need to succeed in inclusive vocational settings?

7. What are some of the challenges that learners with hearing impairment experience when it comes to inclusive vocational training skills?

SECTION D: THE OPINIONS OF LEARNERS WITH HEARING IMPAIRMENTS

8. What initiatives are needed to improve the inclusion of learners with hearing impairment in vocational skills training?

9. Have you ever had a complaint about an inclusive vocational skills teacher's use of a syllabus that was not appropriate for teaching the deaf? If yes, what is your view

THANK YOU MUCH!!!!!!!!!!

Appendix ii: Interview guide for the principle

My name is Ahiadu Sangoda. I am a Kyambogo University student in Uganda who is conducting research on inclusion of learners with hearing impairment vocational skills training. A case study of Igange vocational skills training in Tabora Municipality, Tanzania**.**

SECTION B: THE VOCATIONAL SKILLS PROGRAMMES

1. Does the number of tutors' training learners in inclusive match the course requirements? If not, how many are required?
2. In your opinion, what are some of the experience that tutors face while working with learners who are hearing impaired in inclusive settings?

3. What are the problems facing your inclusive vocational skills training centre in terms of space and resources?
4. What is the source of funds for managing inclusive vocational skills training?
5. To what extent does the vocational skills curriculum place the learners with hearing impairment at advantage?

SECTION C: ADAPTABILITY OF THE TRAINING METHODS

6. What strategies are in place to ensure that learners with hearing impairments learn the skills they need to succeed?
7. What are some of the challenges that people with hearing impairment experience when it comes to inclusive vocational training skills?

SECTION D: THE OPINIONS OF LEARNERS WITH HEARING IMPAIRMENTS

8. What initiatives are needed to improve the training of learners with hearing impairments in inclusive settings?
9. Based on your experience of managing inclusive vocational training for hearing impaired learners. What do you think are the solution to the problems facing your institution?

Appendix iii: Interview guide for the learners

My name is Ahiadu Sangoda. I am a Kyambogo University student in Uganda who is conducting research on inclusion of learners with hearing impairment vocational skills training. A case study of Igange vocational skills training in Tabora Municipality, Tanzania**.**

SECTION B: THE VOCATIONAL SKILLS PROGRAMMES

1. Which course are you doing? Which reasons made you to choose this course?
2. Do you consider that having a sign language interpreter involved in your academics is important? Give reasons
3. What have been your challenges in studying inclusive vocational training skills?
4. What infrastructure do you have in place to meet your requirements?

SECTION C: ADAPTABILITY OF THE TRAINING METHODS

5. What kinds of assistive technology do facilitators use to support you in learning?
6. Which approach do your facilitators prefer to use during the session
7. What do you think should be done to make inclusive vocational training more accessible to learners with hearing impaired?

SECTION D: THE OPINIONS OF LEARNERS WITH HEARING IMPAIRMENTS

8. Would you be able to put your new skills to use after the training? If not, why not?
9. Do you intend to open your own workspace or will you work for pay after completing your training?

THANKS VERY MUCH FOR

PARTICIPATING!!

Appendix iv: Interview guide for the teachers

My name is Ahiadu Sangoda. I am a Kyambogo University student in Uganda who is conducting research on inclusion of learners with hearing impairment vocational skills training. A case study of Igange vocational skills training in Tabora Municipality, Tanzania**.**

SECTION B: THE VOCATIONAL SKILLS PROGRAMMES

1. Based on your experience of training learners with hearing impaired in inclusive settings what kinds of skills/ course do deaf students prefer?
2. Why do you think that having a sign language interpreter is important Give reasons
3. What challenges are you facing in teaching learners with hearing impairment in inclusive settings?
4. Explain what do you do in integrating infrastructure to accommodate for the needs of learners with hearing impairment in inclusive settings

SECTION C: ADAPTABILITY OF THE TRAINING METHODS

5. What kinds of assistive technology do use to support training learners with hearing impairment in inclusive settings.
6. What methods do you prefer to apply while teaching learners with hearing impairment in inclusive settings? Can you List them
7. Based on your experience, what do you think should be done to make inclusive vocational training more accessible to hearing impaired learners?

SECTION D: THE OPINIONS OF LEARNERS WITH HEARING IMPAIRMENTS

8. What initiatives are needed to improve training of with hearing impairments in inclusive settings?
9. What would you recommend for the inclusive vocational training skills to improve in training learners with hearing impairments?

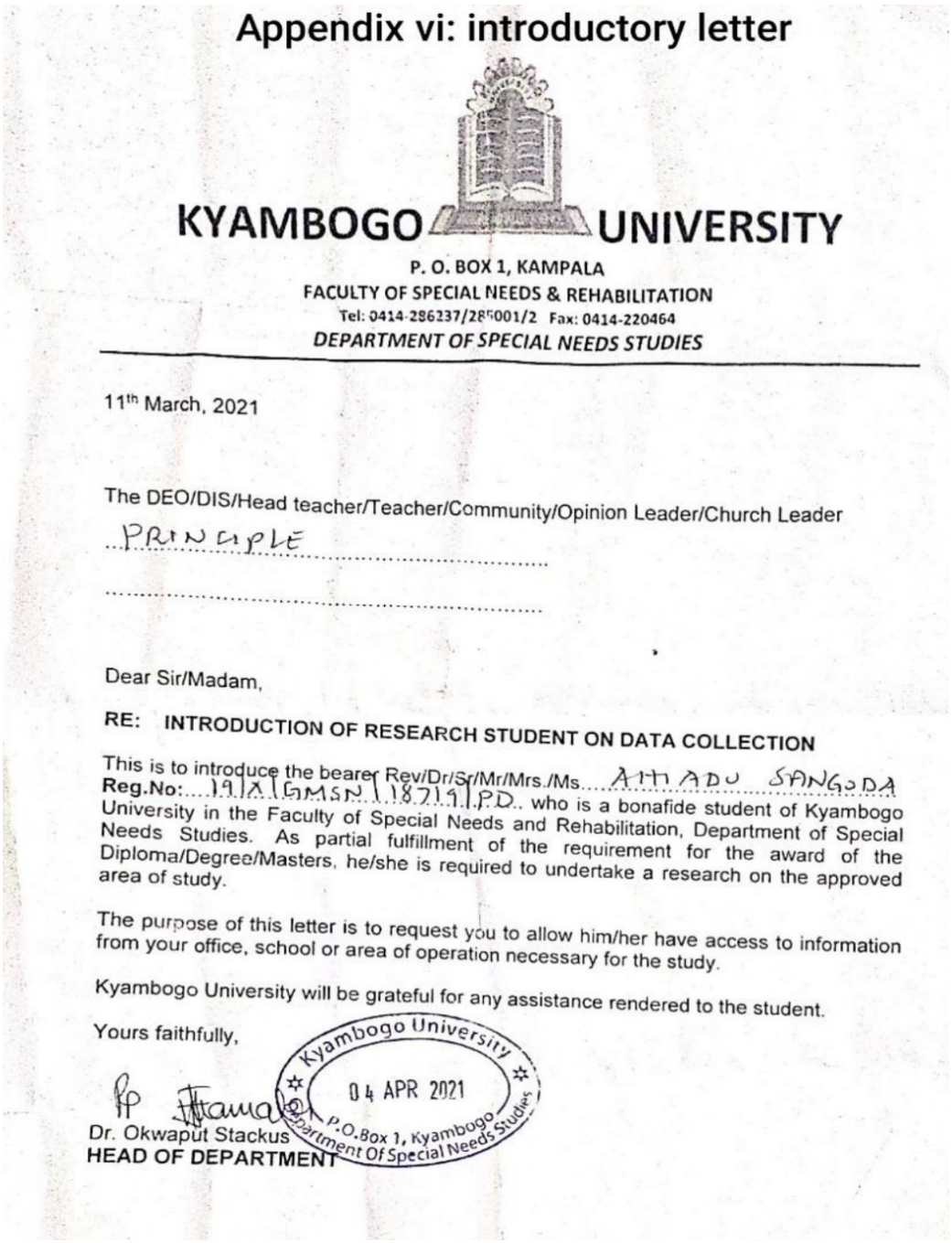
THANK YOU VERY MUCH!!!!!!

Appendix v: Observation checklist

AREAS OF OBERVATION	ASPECTS	COMMENTS
Teaching and Learning Environment	i. teachers trained to teach learners with hearing impairments	
	ii. Sign language interpreters	
	iii. Access to the tools and equipment	
	iv. Practicing skills in the institution?	
	v. Time allocated for both theory and practice in vocational skills subjects?	
	vi. Teachers' use information and technology in facilitating learners with hearing impairment?	
Workshop	i. Products made from the workshop	
	• Carpentry	
	• Sewing	
	• Entrepreneurship	
	• Cookery	
	ii. Necessary tools in the workshop?	

Communication support technology including: Alarm and alerting systems	The use of ICT to assist students with hearing impairments in training?	
Career Counseling service	Counseling service?	
Self- management service	Self-management services?	

Appendix vi: Introductory letter



Appendix vi: introductory letter

KYAMBOGO UNIVERSITY

P. O. BOX 1, KAMPALA
FACULTY OF SPECIAL NEEDS & REHABILITATION
Tel: 0414-286237/285001/2 Fax: 0414-220464
DEPARTMENT OF SPECIAL NEEDS STUDIES

11th March, 2021

The DEO/DIS/Head teacher/Teacher/Community/Opinion Leader/Church Leader
PRINCIPLE
.....

Dear Sir/Madam,

RE: INTRODUCTION OF RESEARCH STUDENT ON DATA COLLECTION

This is to introduce the bearer Rev/Dr/Sr/Mr/Mrs./Ms. AHMADU SANGODA
Reg.No: 19/ATGMSN/18719/PD. who is a bonafide student of Kyambogo University in the Faculty of Special Needs and Rehabilitation, Department of Special Needs Studies. As partial fulfillment of the requirement for the award of the Diploma/Degree/Masters, he/she is required to undertake a research on the approved area of study.

The purpose of this letter is to request you to allow him/her have access to information from your office, school or area of operation necessary for the study.

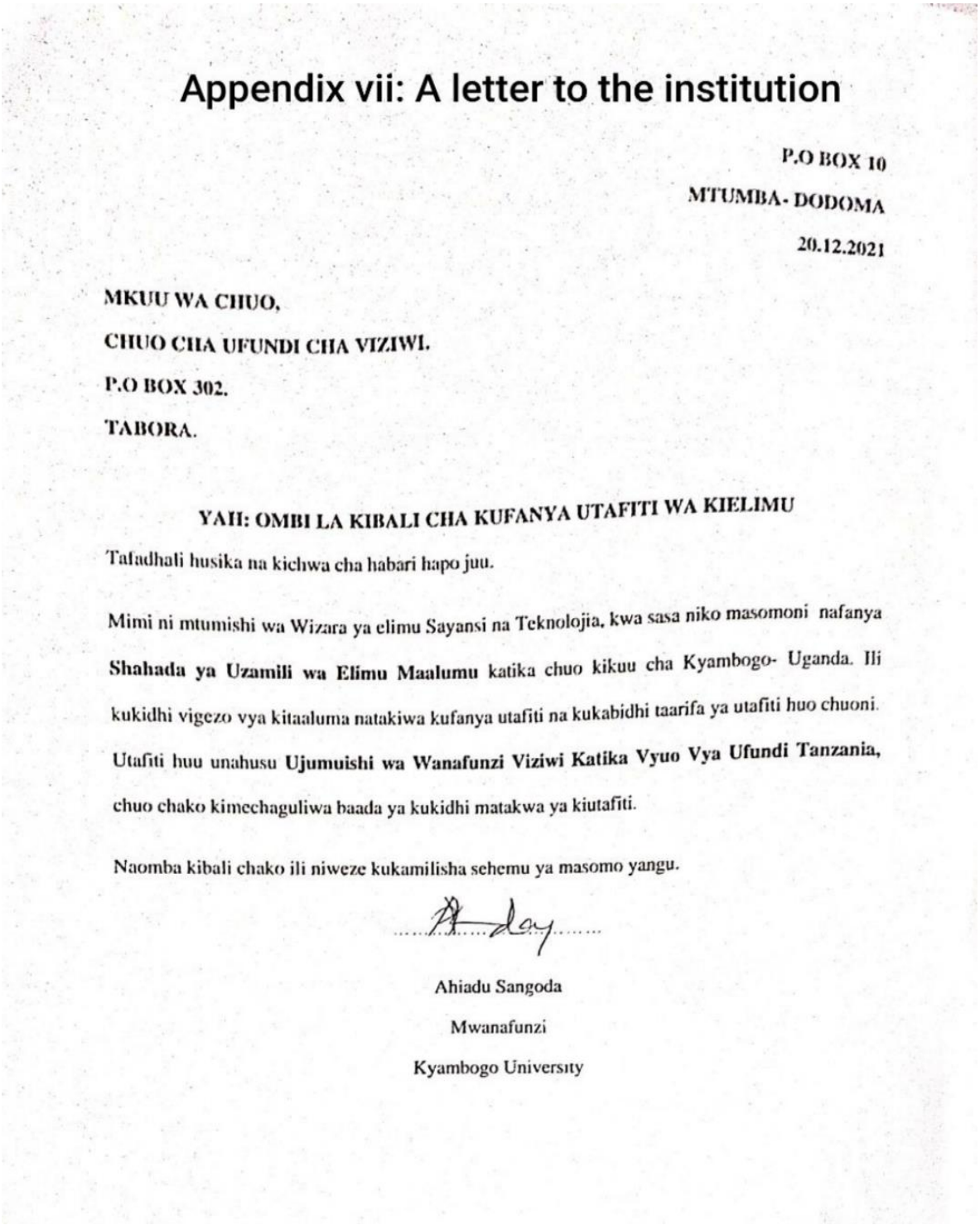
Kyambogo University will be grateful for any assistance rendered to the student.

Yours faithfully,

Kyambogo University
04 APR 2021
P.O.Box 1, Kyambogo
Department Of Special Needs Studies

Dr. Okwaput Stackus
HEAD OF DEPARTMENT

Appendix Vii: A letter to the institution



Appendix vii: A letter to the institution

P.O BOX 10

MTUMBA- DODOMA

20.12.2021

MKUU WA CHUO,

CHUO CHA UFUNDI CHA VIZIWI.

P.O BOX 302.

TABORA.

YAH: OMBI LA KIBALI CHA KUFANYA UTAFITI WA KIELIMU

Tafadhali husika na kichwa cha habari hapo juu.

Mimi ni mtumishi wa Wizara ya elimu Sayansi na Teknolojia, kwa sasa niko masomoni nafanya **Shahada ya Uzamili wa Elimu Maalumu** katika chuo kikuu cha Kyambogo- Uganda. Ili kukidhi vigezo vya kitaaluma natakiwa kufanya utafiti na kukabidhi taarifa ya utafiti huo chuoni. Utafiti huu unahusu **Ujumuishi wa Wanafunzi Viziwi Katika Vyuo Vya Ufundi Tanzania,** chuo chako kimechaguliwa baada ya kukidhi matakwa ya kiutafiti.

Naomba kibali chako ili niweze kukamilisha sehemu ya masomo yangu.

.....

Ahiadu Sangoda

Mwanafunzi

Kyambogo University