



DEPARTMENT OF SPECIAL NEEDS STUDIES.

**FACTORS AFFECTING TEACHERS' PERCEPTIONS TOWARDS THE USE OF SIGN
LANGUAGE IN LEARNING AND TEACHING IN PRIMARY SCHOOLS IN MERU
DISTRICT,-TANZANIA**

BY

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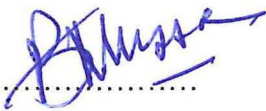
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**THESIS SUBMITTED TO THE FACULTY OF SPECIAL NEEDS & REHABILITATION IN
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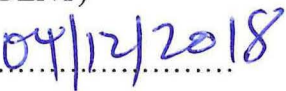
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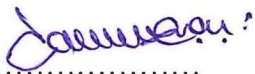
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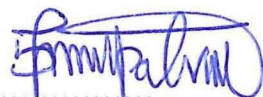
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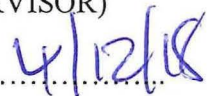
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ABSTRACT

The aim of this study was to investigate factors affecting teachers' perceptions towards the use of Sign Language in learning and teaching in Meru Primary schools. The study was based on David Premack & Guy Woodruff. Theory of mind of 1978. The study utilized a qualitative research approach and collected data using semi-structured interview and observation guides. The target population was thirty two teachers of primary schools for the deaf from which the sample was drawn. The study participants involved six primary school teachers. The study problem was teachers' perceptions that Sign language is not a language. The findings of the study revealed the misconceptions between Sign language and Kiswahili. Trained teachers failed to distinguish between the two, yet Sign language has its own grammar, syntax, phonology, morphology and structure as Kiswahili or English does. The generation of initial information, researcher organized related information under different themes. Thematic analysis was used to identify themes, coding and data were classified for analysis. Findings further recognized that, early exposure to signing helped pupils to develop their language and reasoning skills. Likewise the study established teacher factor, school environment, curriculum learning and teaching resources as influencing the use of sign language in primary schools. Based on the findings, the study recommended that classroom environment which is composed of the arrangement of the room (ventilation), the diversity of the children, daily routines, creating a sign language rich environment, and learning areas should be highly acknowledged. Friendly environment, teacher awareness and use of various teaching strategies towards Sign language development should be admitted. Similarly, sign language curriculum should be established. The researcher suggested that a similar study should be replicated in Meru district to establish factors affecting teachers' perceptions towards use of Sign Language in learning and teaching in primary schools.

DEDICATION

To my best daughters Alatusila and Furahini Benny whose foresight in education and constant encouragement drove me to this level of education and to my wife Fatuma Salum Seif for enduring my long absence from home as I struggled with this work and their unending moral support. Your presence around me as I perused through books and other publications was a great encouragement.

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LIST OF ABBREVIATIONS

TSL -Tanzanian Sign Language

SVO –Subject Verb Object

ASL – American Sign Language

FSL – Finish Sign Language

BSL –British Sign Language

QDA –Qualitative Data Analysis

ETP –Education Training Policy

SEKOM- Sebastian Kolowa Memorial University

UDOM- University of Dodoma

AMUCTA- Archbishop Mihayo University College of Tanzania

TAD- Tanzania Association of the Deaf

UN- United Nations

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CHAPTER ONE

INTRODUCTION

1.1. Background to the Study

Children with special needs have a right to education just like any other children by (Universal Declaration of Human Rights (1948) article26). Education is a fundamental human right and every child is entitled to it. Education is critical to our development as individuals and as societies, and it helps to pave the way to successful and productive future (Wolfenson, 2000). Likewise, George Washington (1953) argued that...education is the key to unlocking the golden door of freedom.

The phrase sign language is sometimes used with very different meanings. As such, it may be helpful to define what is meant by the phrase as it is used. Generally speaking, the term sign language or signed language has been used to mean any manual representation of language relying on the use of signed vocabulary to represent concepts.

The term Language can simply mean a system of communication using sounds or symbols that enables us to express our feelings, thoughts, ideas, and experiences. While a sign is an object, quality, event, or entity whose presence or occurrence indicates the probable presence or occurrence of something else. We categorize Signs into Natural and Conventional signs. A natural sign bears a causal relation to its object for instance, thunder is a sign of storm, or medical symptoms signify a disease. A conventional sign signifies by agreement, as a full stop signifies the end of a sentence. "(Goldstein &Thomson, 2008)

According to Stokoe, (1960) Sign language is a natural language that serves as the predominant language of deaf community. There are several official systems of sign language,

used for example by deaf people. Movements are also sometimes invented by people when they want to communicate with someone who does not speak the same language.

Sign language share many similarities with spoken language (sometimes called "oral language"), which depend primarily on sound, and linguists consider both to be types of natural language.

Although there are some significant differences between signed and spoken languages, such as how they use space grammatically, sign languages show the same linguistic properties and use the same language faculty as do spoken languages.

Sign Language is a language that dictionaries cannot be consulted when checking the definitions of signs, origin of sign, as one would use the English dictionaries instead; Sign Language dictionaries are guided on how to sign a word written in English (Uganda Sign Language Research Project, 2006);

According to Smith (2000), Sign languages in linguistic terms are as rich and complex as any oral language despite the common misconception that they are not real languages. Hence it is extremely important for facilitators to understand the structures of both Sign language and English or Kiswahili and to be aware of the differences between them.

Article 3 of Persons with Disability Act 2011 reiterates clearly that Sign Language is the language of communication for and with persons who are deaf. In this context hearing impaired schools are supposed to use Sign Language as the deaf learners cannot use oral-aural modes of communication. Sign Language therefore, is the first language for those who acquire deafness before they develop speech and language and must be used for teaching and learning for instructions in the classroom.

Linguists have found that sign language and spoken language share many features. Like spoken language, which use units of sounds to produce words, sign language use units or form. These

units are composed of four basic hand forms: hand shape, such as an open hand or closed fist; hand location, such as on the middle of the forehead or in front of the chest; hand movement, such as upward or downward; and hand orientation, such as the palm facing up or down.

In spoken language units of sound combine to make meaning. Separately, *b*, *e*, and *t* have no meaning. However, together they form the word *bet*. Sign language contain units or form that by themselves hold no meaning, but when combined create a word. Spoken language and sign language differ in the way these units combine to make words. However, in spoken language units of sound and meaning are combined sequentially. In sign language, units or form and meaning are typically combined simultaneously Stoke (1960).

Hockett, (1960), argues that human language possesses different traits. He identifies productivity which aims to produce Communication and emit messages that will be used for further tasks. Creativity which is the ability to use norms of grammar, morphology and syntax into new words, Displacement which refers to things that are not visually present are described (abstract). Arbitrariness which refers to agreed words (Consensus) without restriction of use which is determined by chance. Other traits include duality which is a word that can be broken apart into chunks example suffixes and prefixes. The last one is discreteness which defines words as a combination of sounds and symbols.

From the Milan Conference of 1880, no other event in the history of deaf education had a greater impact on the lives and education of deaf people. This single event almost destroyed sign language. A declaration was made that oral education was better than manual (sign) education. The resolutions dealt with instruction of impoverished deaf learners, how to instruct Learners with hearing impairment orally, and the need for instructional books for deaf oral teachers, the long-term benefits of oral instruction, the optimal ages for oral instruction and length of

instruction, and phased out of manually (Sign language) to instruct deaf learners (Jemie, 2018). This was the beginning of struggle when the president of Gallaudet University decided to retain sign language on the Gallaudet campus (Gannon 1989). Researcher believes this monumental decision may have been largely responsible for sign language's survival. On the other hand, Origin of Sign Language as we know it today can be traced to Abbe Charles de l' Epee in the 18th Century ,who was credited with the “Invention” of French Sign Language (Lane& Harlan (1984). He observed the Signs used by the deaf people in France, refined and adapted them to become the modern Sign Language. He advocated its use as the language of the deaf both for social interaction and education.

According to Lawrence, (2015), Early child educators are more responsive to pre-verbal children when the children are using signs; when children use signs, teachers were better at making eye contact with them, talking to them, being warm and affectionate, and responding to their needs in both teaching and learning where deaf or hard of hearing are integrated into a classroom with hearing children. Teachers’ use of sign language during instruction seems to benefit both children who are deaf and those who are hearing, According to the study of attainments of deaf pupils, carried out in the 1970s and 80s, a number of studies indicated that deaf children of deaf parents were more successful academically than those with hearing parents. These results emerged in studies of reading, writing and academic achievement and, in some instances, spoken language. Attributing this to the early use of signing in these families led to the conclusion that sign language could be beneficial in the education of deaf children. Robbins (1991)

World Federation of the Deaf (2007) asserts that Learners with hearing impairment are primarily visual beings, whose eyes are their portal to the world of information and knowledge. Thus, sign language and visual strategies must be made available to Deaf people as a birthright.

The right to education is clearly and explicitly stated in the new Convention on the rights of Persons with Disabilities (UN, 2006). The Convention states that states shall take appropriate measures for facilitating the learning of sign language and the promotion of the linguistic identity of the deaf community. Governments shall ensure that education of learners with hearing impairment is delivered in the most appropriate languages and in environments which maximize academic and social development. The governments shall also take appropriate measures to employ teachers who are qualified in sign language.

In Tanzania, deaf learners must become proficient in Kiswahili and English and are examined like other hearing counterparts therefore knowledge of Kiswahili and English grammar is essential. As an attempt to incorporate more exposure to Kiswahili and English into deaf education, helps these learners to become aware of Kiswahili and English grammar, but Sign language holds its own grammar when used basing on the principles of Kiswahili or English deaf learners are considered to be at a disadvantage. Suggestions have been made to enforce the use of Sign language in learning and teaching. In 1984, a standardized Tanzanian Sign Language was proposed by Tanzania Association of the Deaf, advocating the use of Sign language using common or similar signs in schools for learners with hearing impairment despite the fact that it is not been officially implemented Muzale, (2004).

Teachers are constantly searching for new ways to engage their deaf learners in learning process. Using sign language within the classroom is one solution to reach all learners. Sign language can

enhance the learning process by bringing visual, auditory and kinesthetic feedback to help reach all learners with hearing difficulties.

Educating deaf child provides important opportunities for deaf learners to become engaged in real world issues that go above classroom walls. They can see the relevance of their classroom studies to the complex environmental issues confronting our planet and they can acquire the skills they will need to be creative problem solvers and powerful advocates. (Rosic & Zlokovic, 2002)

The eighteenth century witnessed the first schools for the deaf in Europe. In France, the Abbé de L'Épée developed the 'silent' sign based education system. Concurrently in Germany, Samuel Heinicke, in contrast had founded the first completely oral school. The Milan Conference of 1880 has great impact to deaf education as provided a somewhat dramatic opportunity to launch an era of oral education for the deaf. This effectively excluded deaf teachers from teaching deaf children and led most deaf schools of the world to Sign language going underground. It should be noted that deaf people wherever they were, did not stop signing to one another, however the use of Sign language worldwide was frowned upon as a medium of instruction and in many cases was forbidden. The use of Sign language also became stigmatizing and deaf people particularly those who wanted to consider themselves educated did not sign in public (Butler, & Gilbert, (1981)

In Tanzania the first school for the deaf started in 1963 at Tabora (Tabora Deaf-Mute institute) in western zone. At that time, European founders of the school (Roman Catholic) were fervent advocates of the oral system of education for the Deaf. Speech was confirmed as surely superior to signing as agreed in Milan international assembly of 1880. Tanzanian Sign language was developed and refined by Deaf themselves in the influence of Non –Governmental

Organization who supported deaf Education. This clearly demonstrates that the school system is one way through which any language can be standardized especially if it is formally taught. On other hand, several sign languages are reported to have merged in 1980s, when deaf schools under Evangelical Lutheran Church of Tanzania allowed signs to be used as mode of instructions under the influence of Finish sign language, who was the founder of Mwanga and Njombe School for the deaf. Other schools for the deaf pupils used local languages that created informally. (Haspelmath & Martin, (2017)

Muzale, (2004), asserts that a standardized Tanzanian Sign Language was proposed by the Tanzania Association of the Deaf in 1984 by collecting a common or similar signs, refined and used it as a result established the means of communication. While these exist in schools, it is officially not implemented. Deaf parents or hearing parents of the deaf and teachers used a mixed mode of communication with their hearing children or deaf children e.g., sometimes using speech, other times signing, or a combination of the two or teachers may use fragmentary speech to the child, but expect the child to sign back to them it is obvious a problem: how does the hearing child learn to sign when the teacher is not signing to him or her?. Thus, it is difficult for the child to understand what the teacher expresses and the child faces the same challenges when he/she want to express the feelings, emotions or desires to their parents and teachers. The problem still exists at home, school and to other social gatherings

Tanzania being a member of the international community has signed the United Nations convention on the Rights to education for persons with disabilities for example ;(article 24,) asserts that the state parties shall ensure Facilitation and learning of sign language and the promotion of the linguistic identity of the deaf community. The United Nations Standard rules on equalization opportunities for persons with disabilities (1993) further suggests that Rule 3: on

rehabilitation that States should ensure the provision of rehabilitation services to people with disabilities in order for them to reach and sustain their optimum level of independence and functioning. Similarly,

The report of the fact-finding mission on special needs education in Tanzania (2008), funded by the government of Finland in consultation with Special Needs Education with the unit of the ministry of education and Culture (by the time) revealed that; of those deaf children attending school, less than 1-2 % receives educational instruction in sign language rather than spoken language. Deaf children learn best in sign language which means teachers must be native or fluent signers in the sign language of the country. Sign language should be used to instruct all subjects for deaf children. However common challenges have been observed in both learning and teaching like if a teacher turns his back to the students while teaching, his voice will be directed towards the blackboard, causing a student with hearing loss miss part of the lesson. Instructions on homework assignments, an unfamiliar accent or talking too rapidly and in adequate use of Sign language as medium of instruction can hinder the learning progress of a student with hearing loss. Experience from various countries around the world including Russia and other countries in Europe gives ground for the effective education for the deaf because of the good background of sign language compared to African countries like Tanzania in particular

Little related research has been done in this topic. Included that of, Goodman-Jones (2014), on building deaf friendly communities, Migehe,(2014), on academic performance of deaf student in secondary schools and Charles,(2014), Challenges of teaching deaf students in regular primary schools in Tanzania focusing in communication as the main barrier of their success. Moreover, those studies did not cover issues of sign language learning and teaching in the area of this particular study. It was therefore necessary to carry out a study on factors affecting teachers'

Perceptions towards use of Sign Language in learning and teaching in primary schools in Meru district.

1.2. Statement of the problem

The Education Training Policy (1995) states that every child has a right to proper primary education as a human right regardless of sex, color, ethnicity and abilities. This general education policy statement implies that people with disabilities have the same rights as everyone else. The right to the use of sign language in education of learners who are deaf is clearly and explicitly stated in the new Convention on the Rights of Persons with Disabilities. The Convention states that; states shall take appropriate measures for facilitating the learning of sign language and the promotion of the linguistic identity of the deaf community. Governments shall ensure that education of deaf and deaf blind is delivered in the most appropriate languages and in environments which maximize academic and social development. The governments shall also take appropriate measures. Although Tanzania is a signatory of International Convention, deaf children still face challenges when trying to access education. This study intends to provide answers to and suggest ways on factors affecting teachers' perceptions towards the use of sign language in learning and teaching hearing impaired pupils in primary schools

1.3. Purpose of the study

The purpose of the study was to investigate factors affecting teachers' perceptions towards the use of Sign Language in learning and teaching in Tanzania primary schools.

1.4. Objectives of the study

The following objectives were used to guide the study. The study intended to;

- i. Find out teacher factors influencing the use of Sign Language in primary schools for the deaf
- ii. Determine how school environment support teachers in the use of Sign Language in primary schools
- iii. Establish how the school curriculum affect teachers' perception of sign language use in primary schools

1.5. Research questions

The study formulated the following research questions

- i. How does the teacher factor influence use of Sign Language in learning and teaching in primary schools?
- ii. In what ways does school environment support the use of Sign Language in teaching and learning in primary schools?
- iii. How does the curriculum affect teachers' perception of Sign Language use in teaching and learning in primary schools?

1.6. Significance of the study

The study was likely to inform teachers on how to use sign language to manage and assist learners with hearing impairment in learning and teaching. Also teacher training institutions to redesign sign language curriculum Meanwhile government to invest in sign language teaching and inject more funds for sign language training, policy maker for formulating policy basing on learning and teaching pupils with hearing impairment and curriculum developer for curriculum adaptation to meet the needs of deaf pupils.

The study may also benefit the policy maker on formulating policy basing on learning and teaching of learners with hearing impairment. On other hand the study may also be used to

provide empirical evidence to other researchers' who may want to carry out research in future on factors affecting teacher's perceptions towards the use of Sign language in learning and teaching in primary schools or other related field of studies.

1.7. Limitations of the study.

Researcher did not have control on some respondents' unwillingness to respond to some interview questions. In addition the researcher encountered difficulties for some trained teachers not to be seen in their working stations as planned because of participation of community matter such as involvement in burial ceremony thus affect data collection.

Inadequate of dictionaries and instructional materials where teachers and pupils can make reference for right sign to be used was also seen a challenge. Some teachers were not confident enough when they were told to demonstrate the use of sign language in classes and thus affect the incorrect use of standard signs. Lack of supervisors in academic support especially in the field of studies for international students for those who live outside Uganda was a great challenge. Limitations of the study were minimized by extending time frame for interview from two weeks to four weeks. Also the duration of one hour for interview session was reduced to half an hour because participants were likely to recall recent events and to avoid fatigue. Simple and precise language was used. For the case of second supervisor researcher managed to keep in touch with tireless supervisors via online and face to face throughout research work. Further the study invites other researchers to revise the method used for gathering data so as to avoid self reported data which may have several potential sources of bias.

However, despite the limitations described above, the present study provided useful data for further research on factors affecting teachers' perceptions towards the use of Sign language in learning and teaching in primary schools for the deaf.

Summary

This chapter has discussed the background of deaf education about the role of Sign language in the education of deaf pupils. It has reviewed the meaning and nature of Sign language and has shown that Sign language is a true language contrary to widely held views that Sign languages are simply representations of spoken languages. The chapter has also reviewed literature on the status and education of the deaf in worldwide and Tanzania in particular. It has further discussed issues of language acquisition for the deaf and the debates surrounding the benefits of using Sign language by the deaf people particularly its use at formative years. Finally it has discussed the bilingual approach, the ways of teaching Sign language and the challenges associated with Sign language in deaf education.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter comprises a review of literature on the issues surrounding Sign language and deaf education. The chapter explores debates around education for learners with hearing impairment in recognition of the repercussion of Milan conference of 1880. Environment support, school curriculum, qualifications, learning/resources, attitude and commitment of teachers was scholarly discussed. Finally theoretical framework which guides the study was presented.

2.2. The Role of School Environment to support teachers in learning and teaching sign language

The successful use of Sign Language depends on the learners interactions when playing in the schools compound. A school environment is a broad term which can be defined as a school having appropriate facilities, well-managed classrooms, available school-based health supports, and a clear, fair disciplinary policy and practices. Jolivette & Nelson,(2007). Children who are deaf or who are diagnosed to be suffering from hearing impairment usually have difficulty coping with the real world. If not properly guided, they might become insecure, develop lower self-esteem, and distant themselves from family and people around

Hugh, (1988) Argued; educators of the deaf have a great responsibility in ensuring that the Classroom becomes a learning environment, where the mood is positive and where students will always want to go back to because they feel a sense of belonging Duran-lamanilao (2017). In other words we can insist that; learning environment is a key factor to learners who are deaf in the development of Sign Language. Children learn faster when they can hear, see and feel the

words they are learning. All teachers should consider using sign language as a positive multi-modal teaching solution.

The classroom is a speech-free zone for two major reasons: learning environment and cultural respect. Not only it is a classroom policy, it is also a socio-cultural norm and custom in the Deaf world. Learning a language is not without learning its culture, inseparable. A student's learning ability is greatly enhanced by this no voice environment. Full immersion helps develop better receptive and expressive skills. Using voice may distract other students' learning process. handspeak.com (2018)

2.3. The school curriculum and teachers' perceptions on sign language

The term curriculum refers to the lessons and academic content taught in a school or in a specific course or program. In dictionaries, curriculum is often defined as the courses offered by a school, but it is rarely used in such a general sense in schools. Depending on how broadly educators define or employ the term, curriculum typically refers to the knowledge and skills students are expected to learn, which includes the learning standards or learning objectives they are expected to meet; the units and lessons that teachers teach; the assignments and projects given to students; the books, materials, videos, presentations, and readings used in a course; and the tests, assessments, and other methods used to evaluate Learners learning.

Instruction in sign language is particularly significant for deaf people to help them obtain good competence in their mother tongue. Sign language teaching increases competence for everyday communication, differentiated sign language communication as well as knowledge of the language in general. For deaf people, sign language plays an important role in their social development. Comprehensive teaching of sign language for teachers needs to be advanced in all fields of education as well as in early intervention.

Teachers should have (very) good skills in sign language and they should understand the structure of the language to teach bilingually. It would also be helpful for teachers to be familiar with the deaf community.

The main purpose of teaching sign language as the mother tongue is to strengthen the identity of students as users of sign language in spoken and written language environments. The reason behind is to provide good competence in sign language, functioning as a basis on which users can then build up proficiency in written language and other skills in the context of vocational studies.

The curriculum aims to express the basic values of the education and guarantee educational rights for every student irrespective of area or vocational institution. Teachers are the ones who interpret and implement the curriculum. The key function of the curriculum is to ensure sufficient consistency and quality of education. The curriculum provides uniformity for vocational skills at a national level and confirms the objectives and criteria. The core curriculum is the basis for local implementation, while also increasing educational cohesion.

2.4. Teachers' qualifications.

Teaching styles and high quality of education depends on the quality of the human resource available and this can be found in teachers (UNESCO, 2004). Education must offer an instrument of change and development and not only to focus on the availability of teachers. The teacher factor is important as a basis to academic achievement (World Bank Report, 1986).

Problems that lead to poor quality education persists because of the shortage of both qualified and properly trained teachers. This has impacted negatively on the academic achievement of the learners (UNESCO, 1991). Earlier, teachers without proper academic qualifications and

professional training failed to do justice to their subjects. High qualifications develop self confidence in the teacher who in turn serves as a source of inspiration to his/her pupil

Kiarie, (1996). He further suggests that a teacher must possess theoretical knowledge about human learning behavior, demonstrate better teaching skills and facilitate pupils learning. It is noted that learners' academic performance level is caused by teachers because it's them who most matter in a child's life in school (Ominde, 1964). If a teacher lacks in appropriate qualification and self confidence, then he has a lower self esteem due to lack of content mastery that leads to poor performance by learners.

Teachers academic and professional background are prerequisite to the mastery of Sign language that contributes to the nature for pupils performance; citing lack of efficient use of Sign Language in teaching methods as good setup reflection of teachers professional qualification (Kathuri & Nyaga, 1997). Teachers must master Sign Language Structure before she/he develops Signing Skills that will be used at all times for proper learning to take place in the classroom. Sign Language therefore plays a key role that affects all activities in the school (Oracha, 2007). Since teachers provides instruction in signing or non-verbal, visual communication to hearing impaired pupils therefore teachers must be fluent in Tanzanian Sign language which has its own grammatical structure and incorporates the use of body language, finger spelling and signing.

2.5. Learning/Teaching Resources.

The experience of using a range of learning/teaching resources and related equipments, supplies, furniture and various forms of printed media for teachers are critical in facilitating the process of teaching and learning worldwide (UNESCO, 2007). These resources include pictography that offer services to teachers to enrich their teaching however the resources are expensive and need a replacement (Koech, 1999). The high expenditure incurred on repair can be cut down by training

teachers on how to use maintain the equipments with proper instructions to learners on how to use them. Lack of teaching equipments in most rural schools have discouraged the teachers from doing their best when teaching. Researcher concluded by saying that, if schools were well equipped, they would motivate the teachers to facilitate learning. However, some teachers were not innovative enough and failed to utilize and improvise from the resources available from the school environment to improve their teaching. Researcher also argues that it is not only the availability of teaching resources that can motivate use of Sign Language but rather how teachers make proper use of the teaching resources provided.

2.6. Teachers' attitude and commitment.

Attitude refers to predisposition or a tendency to respond positively or negatively towards a certain idea, object, person, or situation. Attitude influences an individual's choice of action, and responses to challenges, incentives, and rewards.

Teachers' abilities and attitudes can be major limitations to pupils' academic performance (Lieberman & Houston, 2009). Teachers' attitudes which do not promote the use of Sign Language are fear, limited expectations and lack of signing skills. Teacher's unfamiliarity with disability often results to poor academic performance in the classroom. Therefore, sensitivity and awareness on the part of the teacher in school is essential towards the promotion of Sign Language use (Hodge, 2004). Studies have shown that if a teacher has low expectations towards deaf learners then the children will unlikely receive satisfactory education in hearing impaired schools (Oracha, 2007). Therefore teachers should build positive attitudes of learning sign language by participating in deaf clubs, creating a friendly environment of learning and curriculum modification must be adapted to meet the needs of the hearing impaired pupils.

2.7. Theoretical framework of the study

The study was guided by David Premack & Guy Woodruff on Theory of mind of 1978. Theory of mind refers to our understanding of people as mental beings, each with own mental states- such as thoughts, wants, motives and feelings. We use theory of mind to explain our own behavior to others, by telling them what we think and want, and we interpret other people's talk and behavior by considering their thoughts and wants.

This theory emphasizes; that language is a key factor for development of Social understanding and language skills must be developed. The theory is useful in analyzing Various research which shown that learners with hearing impairment have significant delays in their understanding of a language which is caused by lack of access to language which cause them to miss important information about the world. The theory therefore guide how the effective use of Sign language is in teaching and learning process.

According to the theory there are Environmental language factors that play an important role in the development of theory of mind. The theory is obvious when we consider learners with hearing impairment. These are learners with differences in their range of language learning experiences. Deaf learners with deaf parents develop in a language rich environment much like many of their hearing peers because they share a common Sign language with their parents, siblings and peers. In contrast deaf learners with hearing parents develop language environments that are restricted by their limited access to spoken language and by having parents who are not fluent in Sign language (Schick & Spencer 2013).

Using the theory the study investigate how the school environment support teachers towards the use of Sign language in learning and teaching

Summary

Related literature reviewed has clearly shown out that school based factors such as the quality of infrastructure, curriculum materials, school teachers and school management has a bearing effect on the learning of learners in any institution of learning, they influence school attendance or drop-outs. Quality school infrastructure, adequate and relevant curriculum materials and good management strategies increase school attendance and motivation among learners which in turn improves the academic performance of deaf pupils.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter provides a description of methodology used in carrying out the study. It highlights on research paradigm, research approach target population, sample and sampling procedures, data collection methods, data collection procedures, data analysis techniques and ethical considerations.

3.2. Research Paradigm;

A paradigm is a “worldview” or a set of assumptions about concepts, values, and practices that constitutes ways of viewing reality for the community that shares them on how things work (Gokturk 2004). The study based on the constructivist paradigm which depends on understanding "the world of human experience" (Cohen & Manion, 1994, p.36), and suggesting that “reality is socially constructed” (Mertens, 2005, p.12). The constructivist researcher tends to rely upon the "participants' views of the situation being studied" (Creswell, 2003, p.8) and recognizes the impact on the research of their own background and experiences. Constructivists generally "generate or inductively develop a theory or pattern of meanings" (Creswell, 2003, p.9) throughout the research process. The constructivist researcher is most likely to rely on qualitative data collection methods and analysis or a combination of both qualitative and quantitative methods (mixed methods).

3.3. Research approach

The study adopted qualitative methods. Qualitative research is primarily exploratory research. It is used to gain an understanding of underlying reasons, opinions, and motivations (Silverman, (2011). It provides insights into the problem or helps to develop ideas or hypotheses for potential

quantitative research. It is more subjective and uses very different methods of collecting information, mainly individual, in-depth interviews and focus groups (Briggs, 2006). In qualitative studies the sample size is typically small, and respondents are selected to fulfill a given allocation.

Qualitative method was chosen because it allows investigators to develop a deeper understanding of a topic, can investigate stakeholders' attitudes, beliefs, and preferences – the how and why of decision-making and provide an opportunity for a systematic, in-depth evaluation which I believe the objectives of the study on Teachers' perspectives of use of Sign Language in learning and teaching in primary schools was met. Denzin & Lincoln (2005).

3.4. Participants

Neuman (2009), argues that the required number of participants should depend on what one wants to investigate, the purpose of the inquiry, what is at stake, what is useful and what can be done within available time and resources. Targeted population for this study were therefore 32 teachers of hearing impairment from class five to class seven because of their exposure to sign language use. The focus on trained teachers is due to the fact that teachers have experience and knowledge of teaching and learning. The teachers understand the learning difficulties and related challenges encountered in class. They also have suggestions on policies and strategies which should be addressed in order to improve academic performance.

3.5. Sample and sampling procedures

Sampling is a process or technique of choosing a sub-group from a population to participate in the study. It is the process of selecting a number of individuals for a study in such a way that the individuals selected represent the large group from which they were selected (Ogula, 2005). Sample choice depended on their experience, knowledge, social ability and exposure to sign

language use therefore, in this study the researcher used purposive sampling where by six trained teachers of pupils with hearing impairment were chosen because of their experience, knowledge, skills and use of Sign language in teaching pupils with hearing impairment .

3.6. Data collection methods.

The study used interview and observation schedules to ascertain how study objectives are met in relation to Tanzanian sign language use in both learning and teaching in primary schools.

3.7.1. Interview

According to Namara, (1999) interview is the verbal conversation between two people with the objective of collecting relevant information for the purpose of research. In-depth interviews a dialogue between interviewer and interviewee was employed to explore the norms, values and understanding of sign language. Interviewer initiated and controlled the exchange to obtain information relevant to the objectives at hand

The study employed semi-structured interview where researcher did not strictly followed a formalized list of questions. Open-ended questions were asked allowing for a discussion with the interviewee rather than a straightforward question and answer format.

The researcher prepared a list of questions but did not ask them all, or touch on particular order, used them to guide the conversation.(Appendix A & B). Researcher asked participants by rephrasing the interview questions into Tanzanian sign language. Participants responded to the questions and documented. Structured interviews are easy to replicate as a fixed set of closed questions were used also was fairly quick to conduct. During evaluation researcher used indepth interview, observation method and document review. Research objective addressed by interviews include to find out teacher factor, determine school environment and establish how the school environment influence the use of Sign language in primary schools for the deaf in Meru district.

3.7.2. Observation

An observation data collection tool refers to the process of gathering information that relies on the researcher seeing, hearing, testing and smelling. It does not depend on getting information through someone else (Enon, 1995). The study employed Naturalistic observation, in this observation researcher was able to observe the spontaneous, natural behavior of the participants in their natural classes because objectives and purpose of the study was explained and the participants were aware of being observed. The study observed ability to use Sign language based on finger spelling, action of the eyes, mouth, cheeks, face, head, shoulders, facial expression and signing area. Camera was used to record the events.

Observation was useful because it involved studying the spontaneous behavior of participants in natural surroundings and in the classroom which did not require much technical knowledge.

However there are also demerits or limitations of this method like misinterpretation and inability to observe correctly (Enon, 1995) Thus why researcher decided to use camera to record the manual communication as used by teachers to re observe during data analysis.

3.8. Data collection Procedures

The researcher first sought permission from the District Executive Director. Thereafter, the researcher visited the identified schools to seek permission to carry out the study. Once permission was granted, the researcher met the trained teachers for the deaf to introduce himself and visited the classes of hearing impairment where introduction was made. There after purposeful sampling method used to identify participants based on pre-selected criteria on the research objectives. Researcher prepared semi structured interview guides (Appendix A, & B) comprised of both closed ended and probing open ended types of questions. The interview was carried out by interview preparation where location, schedule, name of the participants and their

title was made. Other relevant information was reviewed and building rapport was also done. Interview session started where introduction was made followed by discussion of the goals of the interview. Participants had time to ask questions, closing the interview and assessing participants as participated was also not ignored. Interview took three weeks and the language used was English although Kiswahili used sometimes to clarify the concepts. All questions reflected and gathered information based on research objectives of the study. Finally, data collected as scheduled. Thanks and appreciations was given to teachers and assured them that the information gathered is for research only and not otherwise.

3.9. Data analysis

Qualitative Data Analysis is the range of processes and procedures whereby we move from the raw data that have been collected as part of the research study and use it to provide explanation, understanding or interpretation of the people and situations we investigated. Qualitative Data Analysis is usually based on an interpretative philosophy. The aim of analyzing qualitative data was to examine the meaningful and symbolic content of that which was found within.

Kothari, (2004) emphasized that before embarking upon final interpretation, consult other people with insight to the study. Consultation may result in correct interpretation and, thus, enhance the utility of research results (p. 345). The analysis process followed the thematic analysis Alhojailan (2012) affirms that “thematic analysis allows the researcher to determine precisely the relationships between concepts and compare them with the replicated data ... All possibilities for interpretations are possible” (p. 40). After generation of initial information , researcher organized related information under different themes. The themes developed were reviewed for relevance and legitimacy of being called themes. Then the overall content of the themes and the message were carried and refined before producing a report.

The factual information interpreted to apply future directions in planning and improvement use of Sign language in teaching and learning.

3.10. Ethical considerations

Request of authorization from district education offices was made. With regard to participants signing a consent form, this never happened although it had not been overlooked. Morrow (2009: 5) points this out in relation to qualitative research in various international settings, 'Some teams have found that signing a paper consent form is not acceptable for various reasons, mostly because people are wary of putting their signature on forms'. So researcher decided not to ask my participants to sign any form but in order for them to build trust in me, after my oral introduction, researcher assured them of confidentiality.

For classroom observations researcher videotaped and explained to them that they would only be used for the purposes of the research. Roald (2002) while interviewing deaf teachers had to video record the interview sessions so that he would capture the whole conversation. All the interviews with teachers were video-recorded since they took place mostly in sign language and it was also important to capture the non-verbal communication expressed in body language through the use of facial expressions, and other gestures.

Researcher assured the participants of confidentiality and anonymity and promised to share the findings of the study with them through the institutions

Summary

This chapter has outlined the methodology used to collect and analyze the information for this study. Targeted populations of thirty two in number were basically teachers. The chapter has defined the sample, sample size and procedures used to come up with the sample. The chapter has further discussed the instruments, data collection methods, data analysis and ethical consideration was discussed.

CHAPTER FOUR

PRESENTATION OF FINDINGS

4.1 Introduction

This chapter presents findings of the study as they were gathered from the field. On all the fundamental objectives which were under investigation. The presentation was based on all data collected through interview and observation guides for trained teachers (Specialist teachers). It is however noticed in our discussions below that the responses of the data presented are based on the responses from the teachers. The responses from these mainly helped to complement the data collected and also helped the researcher in making conclusions about the phenomenon observed

4.2. Teacher factors influencing the use of Sign Language in primary schools for the deaf.

4.2.1. *Training in sign language*

The research findings reveal that Sign language is the main medium of communication between teachers and pupils in deaf schools. Findings also indicated that the schools have recognized that early language learning is key to the language development of the Deaf. This is supported by many scholars who have proved through various research works that early language exposure improves literacy skills for the Deaf (Drasgow 1998)

The study revealed that the majority of the teachers felt that they did not receive adequate training in Sign language. ‘*They argued that they did not undergo any comprehensive training in Sign language when they were at College*’. This represents most of the respondents interviewed. Some of teachers responded that they underwent comprehensive training in Sign language and the rest responded that the training was theory based.

During discussions, respondents further revealed that the standard of Sign language trained at Patandi College of Special Education (PATCO), Sebastian Kolowa Memorial University

(SEKOMU) and University of Dodoma (UDOM) were generally shallow. Some teachers felt that Patandi was offering much more detailed training theory in Sign language and little practical training particularly during Block teaching practices. Here are the exact words of one respondent: *“At Patandi College of Special Education, Sign language training is slightly detailed but at the University of SEKOMU and that of UDOM, the training is less than expectations. It has less practical and little theory”*. One respondent claimed that at the time he was at SEKOMU he was disappointed with the level of training in Sign language. This is how he put it: *“The time when I was at SEKOMU from 2010 to 2012, I was only taught Sign language once on how to sing the national anthem in Sign language”*.

Another respondent from Patandi primary school who is actually deaf claimed that at the College he was used to teach Sign language to fellow students instead of studying because he was the only deaf. He stated this as follows: *“Our lecturer used to teach at UDOM a long time ago so it was me who was teaching Sign language to my colleagues because he had forgotten most of Sign language.”* Most of the teachers admitted knowing very little Sign language when they started teaching the deaf. Asked where and how they learned their Sign language, they explained various means by which they learnt their Sign language. Most of them said that they learnt their Sign language through the learners. Others said *that they learnt Sign language through interaction with the deaf people* while others said *they were taught by some of the teachers whom they found had already have the knowledge of Sign language*. Some said *they learnt the language through workshops organized by schools and Tanzania Association of the Deaf (TAD)*. One of the teachers at Chemchem said that Sign language does not stand alone as a separate course at training Colleges. Her observation was that most of the students graduating from these institutions are half cooked on Sign language use. Problems may be lack of

Seriousness in training at the college and improper use of Sign language in schools could also be the factor. The findings revealed that most of teachers interviewed did not undergo comprehensive training in Sign language is not surprising. This is in line with most of the findings and observations by many people. These findings are similar to the situation in Kenya where Global Deaf Connection (2010) reported that most of the teachers in the 41 schools for the Deaf do not know Sign language as they use pointing as their primary means of teaching methods. This study has established that the teacher training curriculum of the four major institutions (SEKOM, UDOM, AMUCTA and PATANDI) should take this into considerations.

4.2.2. Availability, suitability and acceptability of the school resources

Schools for the deaf often lack the necessary materials to help the deaf child. Most schools have problems in providing a textbook for every child. A child must then copy off the board, thus does not develop reading skills by reading a textbook. Findings indicate that visual/teaching aids in schools for the deaf are very important to teachers who have difficulty signing. It is important to use pictures to try and make the concept clear and relevant. Without access to teaching aids, it becomes very difficult to effectively relay information to students.

Additionally, many children do not have access to library books. Schools are often limited to fund books for a library; children do not have the ability to read books that would develop their reading skills. Library books help deaf children over-compensate visually and give them something extra to stimulate and help them develop their language ability at a faster rate. Good example is the computer used by deaf pupils at Patandi Primary school.

Computers are also a great resource which benefits the deaf child. Computers are very visual and have a variety of educational software programs to stimulate the deaf child. However, due to the

high cost of computers and necessary computer training, many schools for the deaf cannot afford to buy any or enough computers that would adequately serve the needs of their students.

Researcher’s observation on availability, suitability and acceptability of the school resources

Revealed data as indicated in the table below,

TABLE I: AVAILABILITY, SUITABILITY AND ACCEPTABILITY OF THE SCHOOL RESOURCES

RESOURCES	AVAILABILITY	QUALITY	ACCEPTABILITY
Sign language Flashcards	√	X	X
Sign language Dictionaries	√	√	√
Sign language Books	X	X	X
Sign language Dummies	X	X	X
Computer/Projector	√	√	√
Television	X	X	X
Sign language printable	X	X	X
Others.....	–	–	–

The above findings indicated that out of the seven observed facilities, two of them were in good quality and three were available.

This data corresponds to the data from the observation and interview guides which indicated that teaching resources in the sampled schools were inadequate and of poor quality. Hunt and Marshall (2002) argued that for effective teaching and learning of learners with hearing impairment, resources should not only be adequate but also suitable.

4.2.3 Teachers' attitude and commitment

The power of belief is tremendous. Deaf people can do anything that hearing people can do, except hear. Deaf people have minds and bodies that work just as well as their hearing counterparts. Deaf people are different only in the sense that they cannot hear and that they communicate in a different language than a hearing person. If a person can communicate then the "disability" goes away, because deafness is essentially a communication disability, not a physical one. With that said, many hearing teachers that work in the schools for the deaf think that the deaf have little chance to succeed in their education and ultimately in life. Unfortunately, many teachers who believe that students will be unsuccessful are the ones that ultimately ensure such a fate, engaging in a self-fulfilling prophecy. Deaf students are unsuccessful, not because they cannot learn, but ultimately because teachers do not educate them effectively.

Far too often researcher observed that, teachers come into the classroom; write the lesson on the board, orally read what they said, and then wait for deaf students to copy the information off (below or less than usual of that of the board). Students learn nothing when a teacher teaches this way. But what is even sadder is the fact that this type of "*teaching*" would satisfy any inspector who came into the school and wanted only to look at lesson plans, schemes of work, and students' work.

On the other hand, teachers who believe that deaf children can be successful students make the extra effort to do what it takes to ensure deaf children will have a chance to succeed.

Teachers that believe deaf students can do well take the extra effort to make sure that their lessons are effective and interesting to the students. These teachers constantly strive to expand their sign language vocabulary. They devise ways to utilize teaching aids in interesting and informative ways that help deaf children learn well. Deaf students learn from

such teachers and become more successful academically and in life. These kind of trained teachers are few in schools and are taken as interpreters once a communication difficulty arises within deaf Community.

4.2.4 Ineffective communication

The main barrier in education of the deaf is lack of effective communication. Many teachers are unable to properly teach deaf children in Tanzanian sign language because they cannot communicate with them properly. Many teachers sign very poorly and make little effort to improve their signing ability. Also, teachers do not have a clear direction on how they should communicate with deaf pupils. There was a great amount of confusion on what was the proper sign modality to use with deaf children either Tanzanian Sign language (TSL) or Gestures. TSL is a language and follows the language structure like that found in American Sign Language (ASL), Finish Sign Language (FSL) or British Sign language (BSL), because these Nations basically are the source of references due to various researches which have done in the field of Sign language. TSL often incorporates non-manual markers to compliment signs. Some examples of non-manual markers are gestures, facial expressions, signing space, and the speed of signs. Non-manual markers usually show things like degree of things, pace of speech, and inflections in speech. Non-manual markers give the deaf person a complete range of language features; thus, they are beneficial.

TSL uses a Subject-Object-Verb (S-O-V) sentence pattern in comparison, while spoken Kiswahili or English uses a Subject-Verb-Object (S-V-O) sentence pattern. In TSL, sentences like, "I am going to the store," will be signed, "I store go." It should also be noted that TSL is not a written language. The function of TSL is to transmit information visually between one or more people and not on paper. While, this helps a deaf person communicate effectively, it does create

some confusion while writing. The study has revealed that there are difficulties faced by teachers when teaching deaf children. At lower primary classes, pupils find it very difficult to understand instructions by their teachers. In most cases teachers have to repeat themselves at least twice for the instructions to be understood. Pupils at higher primary classes were asked whether they understood the signs used by their teachers. The majority of them said they did not understand some of the signs used by their teachers. The study revealed that many of the pupils interviewed said they did not understand the Sign language used by their teachers. This represented most of respondents while few numbers of pupils said they understood well the signs used by their teachers. The rare number of respondents indicated that they understood the signs sometimes.

4.2.5. Understanding signs used by teachers

On the other hand, Teachers were also asked if they understood the Sign language used by pupils. Half of the teachers interviewed stated that they found it very difficult to understand the deaf pupils' way of signing. Only few stated that they understand fully the way of signing used by deaf pupils while rare number of teachers said sometimes understood sometimes not.

4.2.6. Understanding signs used by pupils.

But when asked if pupils understood their ways of signing, the majority of the teachers felt that pupils had no problems with their way of signing. Half of the respondents said that pupils understood and followed their signing system. Few of the respondents said they thought that pupils did not understand their signs, the rest was not sure.

4.2.7. Teachers view on whether pupils understand way of signing

Personal class observation revealed that some words were actually signed wrongly. For instance the word "*finish*" was signed as "*end*" by one of the teachers at Patandi unit for the deaf due to error of palm orientation. One teacher at Moivaro unit narrated how a pupil was upset

with her due to disarticulation of the sign “*hurry/ up/*” as follows;

“*I was telling a pupil to hurry up because she was late but unfortunately, I signed the word wrongly which changed the meaning from hurry up to meaningless sign*”. Another teacher said, “*One time he was teaching “agree” and “accept” in English. His signs and their signs were too different so there was confusion somehow then he requested for assistance eventually corrected them.*” Another teacher from Chemi Chemi said, “*Just when I was a month in employment, I was informing my class five pupils that they will be having a test on Tuesday without knowing that I was signing reading on Tuesday.*” Teachers also narrated how they found it difficult to teach Science subjects at higher classes. Teachers complained that English grammar was one of the most challenging to teach. They said that the pupils just wanted to write English the same way they communicate in Sign language. While it is necessary for pupils to be initially encouraged to learn and use Sign language grammar, they eventually need to graduate to the use of written English or Kiswahili grammar as the current examination system grades them on the basis of this. Secondly the teachers said that *Tanzanian Sign language has a very limited vocabulary*. It is mainly limited to the everyday experiences of the Tanzanian situation. Also, the teachers said that they had difficulty *teaching sciences* to higher classes because of vocabulary. They said it is difficult for them to teach *abstract concepts* in Science for words such as atoms. At Leganga unit for the deaf teachers narrated how hard it was to teach the sciences to the Deaf. One respondent put this as follows: “*When you come to new terms which both teachers and learners don’t know how to sign for instance ‘electrons’, it is difficult to find signs.*” Another teacher said this about English: “*When you give these pupils comprehension, for instance, they will bring you a list of 15 words for you to explain before they even do the work. This means they have a very shallow vocabulary.*” Another observation was during class presentation when teachers failed to present

Dictation. Dictation was presented through Finger spelling instead of Sign Language. Using finger spelling for dictation is like copying words (paste) as it is which may mean not necessary for the word to be understood. Finger spelling is for few words which have no sign name, name of the places and name of people.

4.3. The role of the school environment to support teachers in the use of sign language

The learning environment is the place where learning occurs. There are elements in every learning environment that serve as barriers to learning or facilitate more access to learning for deaf and hard-of-hearing students. For example, a lecture-style class where the teacher does most of the talking throughout the lesson with few or no visual examples can become a barrier to learning, while the use of visual aids to support classroom lessons can enhance student learning. The social environment plays an important role in the language and socio-emotional development of deaf and hard of hearing children. It is important to ensure that communication is freely accessible in schools for these children for their well-being and cognitive development. Deaf and hard-of-hearing children frequently find themselves isolated in mainstream schools because they are unable to hear enough to communicate easily with their peers. Schools that permit signing environments provide a space for these children to socialize freely with their peers. It is crucial for educators to identify barriers to communication within the school environment in order to allow for optimal development of the whole child. The study has revealed factors that contribute to poor classroom acoustics these are the distance between the child and the teacher, the level of ambient noise (external to the building, external to the classroom and internal to the classroom), the reverberation time (RT) in the classroom, ratio of the speech signal relative to the background noise levels, Poor planning (physical location of the school and placement of the classrooms), poor selection of building construction materials and

finishing materials for floor, walls and ceiling (i.e., having reflective surfaces for sound to bounce back and forth; not using sound absorbent materials to line the interior of classroom surfaces).The school for the deaf was built without consideration of the nature of pupils, thus increases communication difficulties for example Patandi unit, Leganga, Moivaro, and Chemchem school for the deaf (units) built adjacent to highway.

4.3.1. Availability, quality and adequacy of school infrastructure

Researcher’s observation found some classrooms having major cracks on the wall which posed a great challenge to the safety of all their users. Such cracked wall cause fear among learners leading to poor concentration in class. The classroom floors were dilapidated and the school compound was too muddy an indicator that playing was impossible during rainy seasons. The schools sampled lacked basic structure such as a language laboratory which is a key facility for learners with hearing impairment who require a lot of effort and practice in learning articulation and pronunciation. This is supported by previous studies done by Environmental Protection Agency (2000), Kennedy (2001) and McGovern (1998) who revealed that good infrastructure in schools encourages good performance of learners. Also, findings from Leah (1997), Philips (1997), Fisher (2000) and Lackney (1999) contend that good ventilation, good spaces in classrooms, less noisy places, quality buildings, better lighting and good playground are vital for learners academic achievement in school. Researcher’s observation on availability, suitability and adequacy of the school infrastructure revealed data as indicated in the table below.

TABLE II. Availability, quality and adequacy of school infrastructure

Infrastructure	Availability	Quality	Adequacy
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Play ground	√	X	√
Classroom	√	X	√
Computer laboratory	X	X	X
Language laboratory	X	X	X
Library	√	X	X
Resource room	√	X	X

The above findings indicate that out of the six observed facilities, none was in good quality; many facilities were available but not in quality. This data corresponds to the data from the interview guides which indicated that the infrastructure in the sampled schools were inadequate and of poor quality. Hunt and Marshall (2002) argue that for effective teaching and learning of learners with hearing impairment, resources should not only be adequate but also suitable

4.3.2 Administration and Nature of Teachers

The study revealed three groups of teachers in the schools for the deaf. The first group was the type of teacher that really cares about deaf children and strives to become a good teacher for the deaf. The second group was the type of teacher that sees deaf education as an area for good career advancement that is not possible in regular schools. Lastly, the third group was the type of teacher that joined the school for the deaf because he or she sees the opportunity the school as a

place to escape, be lazy, and take advantage of the salary increase.

The first and second groups of teachers seem to be dedicated and committed to their work. These teachers tended to have interest of the student in mind. They gave good effort and work to improve their teaching and signing skills. These teachers helped to improve the quality of deaf education. Unfortunately, a large percentage of teachers seemed to be in the third group of teachers that do not want to work in schools for the deaf. These teachers lack motivation and commitment and do little to help deaf students learn and improve. These teachers increased the burden on the other teachers who try to teach deaf children and overload others' responsibilities. These were teachers that should be detected and then transferred to normal schools where should also be counseled before teaching, but yet little is done about them.

Another area of significance was a post of head teachers. Some head teachers were wonderful administrators and do a lot to make the schools for the deaf better places to learn. However, there were other head teachers with negative attitude towards pupils with special needs when it comes to pupil teacher ratio, teacher on duty and other responsibilities basing on the needs of the pupils. These Challenges not only for head teachers but also for district educational Coordinators on Special need Education who sometimes fails to advise the teacher-ratio and interpret curriculum matters on how to address the needs of the pupils. More diligence should be done in posting head teachers to ensure their proper qualifications. Head teachers, other than administering the school and meeting the child's needs, permit teachers to voice their concerns about the school and provide teachers with good working conditions and good morale. When teachers have poor morale and enthusiasm teachers are not as committed to their jobs and teach poorly and the child suffers. There are even some head teachers who hardly attend school. Many of these head teachers had a high number of absences and could not properly run the school when they were

out. Policy is needed to put into place to ensure that head teachers or assistance head teachers of the schools with units should be those with special education knowledge for running the school appropriately and that the needs of the teachers and pupils will be addressed properly.

4.4. The role of the school curriculum to teachers in the use of sign language

Deaf learners are likely to exhibit learning needs that are different in degree and type from those of hearing learners. This is due to their over-reliance on visual input which would require, for example, the use of visual learning materials with more intensity than when they are used with hearing learners. Their hearing loss may require different teaching strategies for particular individuals who may also have other difficulties that are likely to co-occur with deafness.

Gregory (2005) noted that globally deaf learners tended to have been placed in different educational programs due to the differences brought about by the degree, the type, or the onset of the hearing impairment. Where the learning of deaf learners is viewed as the same as that of hearing learners, they all tend to follow the same curriculum with the same goals through a spoken language sometimes with or without classroom adaptations and Audiological support. However, the situations in Tanzania, and probably in other developing countries, learners with hearing impairment are treated as a homogeneous group regardless of the type, the degree and the onset of the impairment. The criteria used while placing the learners in any of the different educational programs is determined by the parents and sometimes the teachers. While phonological knowledge and skills appear to support reading skills among proficient hearing learners, deaf learners have been observed to experience difficulties in the use of prepositions, pronouns, and grammatical morphemes. In order to meet the academic needs of students with hearing loss, there is need to consider these differences when designing specialized teacher training, curriculum, approaches to instruction, and teaching and learning materials and activities

rather than just focusing on communication barriers (Spencer & Marschark, 2010).

The study conducted at Patandi, Moivaro, Chemchem and Leganga Unit for the deaf, revealed that deaf education in Tanzania has no means of proper recognition and adaptation of Tanzanian Sign Language (TSL) as a medium of instructions. We have many teachers in deaf schools who do not know how to effectively communicate with deaf learners in TSL. Some teachers rely entirely on the oral method to teach deaf learners. John Maukiri a deaf teacher at Meru Primary school and Sign language teacher strongly believes that there can be major improvements in deaf education in Tanzania, if TSL is effectively adopted as the medium of instruction to teach Kiswahili, English and other subjects. Besides this, deaf education in Tanzania is plagued by shallow teacher training; limited resources and an unsuitable curriculum that does not consider the needs of deaf learners.

The findings revealed that there was no policy on the teaching of Sign language to guide the teachers in the process of teaching. While some teachers said they teach it, others said they are not because it has not been formerly introduced in the school system by the government. Perhaps those who are teaching are doing so out of the realization of a need. There is need to formalize the teaching of Sign language so that all teachers are obliged to teach it. Since it is not formerly provided for in the curriculum, there is no standardization and obligation, and on the timetable, teachers only teach it in order to cater for the specific needs of the children. In addition, it would seem as though what is taught is only Sign language vocabulary. Hence, pupils are not taught Sign language grammar and syntactic rules. Instead, they are taught English and Kiswahili grammar and syntactic rules. The curriculum was designed with the assumption that a child begun school at age of five to seven years of age without consideration of their disabilities. In almost all cases, deaf children do not. For example, in some of the special schools, when a deaf

child first enters school they spend two years in preparatory classes (Nursery School).

During this time they develop some foundation of language, learn to communicate with teachers and peers, and begin to recognize signs with pictures and symbols. While the language develops at a rapid rate, it is still not close to appropriate-age levels.

After two years of preparatory classes, children are placed in standard one. It soon becomes apparent to teachers that children have not mastered basic concepts required by the syllabus.

Although teachers are aware of this, they are expected to keep pace with the mandated curriculum even if children do not understand what is being taught. Education officials visit the schools and put pressure on head teachers to keep pace with the syllabus. This presents problems to teachers of the deaf because they are expected to move rapidly at the expense of the pupils.

Teachers cannot spend time with pupils focusing on particular skills such as reading and writing. Education officials seem to value and emphasize on finishing the syllabus simply for the sake of finishing it on time rather than ensuring children master basic skills of reading and writing. The skills that will help them become productive and literate citizens of Tanzania.

English represents a tremendous obstacle for deaf children. Deaf children are often too confused during the process of their language development when English is taught in addition to Kiswahili. Learning English makes it difficult for deaf children to develop a strong language foundation. Deaf children are told that there are two different words for nouns and verbs. There is much confusion on what is the correct and incorrect word, thus their language foundation becomes distorted.

The assessment process of Tanzania Education system is also an obstacle for deaf children. For instance, the standardized tests are written in English and Kiswahili, which is far beyond the understanding of many deaf children. Even if the deaf children understand the necessary

concepts, the language of the tests proves much too difficult for the child. As a result, many children end up simply guessing on a test that makes no sense to them.

The standardized tests are not a valid measure of what the children actually know. Ironically, the brightest children in class can often score the lowest on the standardized test while children with very low mental and cognitive functioning can score very well, simply because they were able to guess better. As a side note, it is interesting that educational officials group the schools for the deaf examination results with that of hearing schools. Such a comparison does very little to benefit schools for the deaf. Hearing and deaf schools are in two different categories and deaf schools are almost absolutely guaranteed to be last in every region. Comparing deaf schools with other region deaf schools would let know deaf schools how they are fairing against other similar schools. This information would prove more useful as a lower-ranking school could ask a higher-ranking school for assistance on ways to improve their academic performance.

The Tanzania Institute of Education (TIE) is in the process of conducting major curriculum reforms. There is resounding consensus among trained teachers and other stakeholders within the deaf community and the education sector, that major reforms are needed in order to improve the outcomes of the deaf. We can only hope that the reforms implemented will bring the much needed transformation because deaf education in Tanzania is not friendly in terms of services.

4.5. Conclusion

This chapter presented the findings of the study. The study has established that most teachers in the four schools investigated did not undergo any comprehensive training in Sign language. It has also revealed that although Sign language is the medium of instruction it is not formally taught by the schools. They teach sign vocabulary which is thereafter used as a means to

acquiring the Kiswahili or English language. The study also revealed that teachers are not consistent with any one signing mode as they randomly change between Sign language and Signed Kiswahili or English. The study also noted that teachers face a number of challenges in teaching deaf pupils and that they have come up with their own coping mechanisms. Finally, the study revealed that the majority of the respondents would want Sign language to be introduced as a taught and examinable subject beginning from primary to higher learning institutions.

CHAPTER 5

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This chapter presents the discussions, conclusions and recommendations of the study. It gives implications of the findings of the study and gives the recommendations which the researcher thinks would help to improve standard of deaf education in Tanzania. It also outlines areas for further research.

5.2. Teacher factors influencing the use of Sign Language in primary schools for the deaf

The findings of teacher factor influencing the use of Sign Language in primary school for the deaf, revealed that majority of the teachers are professionally qualified however they were not fully trained in sign language. The study found that whereas proficiency in Sign Language among teachers plays a great role in the education of deaf learners, but doesn't mean offering quality education to deaf learners. The study found that most of the teachers used general teaching strategies for deaf learners due to assumption that pupils with hearing impairment learn the same as hearing learners. The study found that the school did not have enough deaf teachers" who are proficient in Sign Language and a model to deaf learners. Also the findings revealed that the school did not use a dialogic teaching approach that encourages learners to participate in their own learning language.

The study also established that teachers use a mixture of Sign language and Signed Kiswahili or English interchangeably or the use of gestures in these schools. Although teachers have good reasons for mixing the signing systems, it may be detrimental to the language development of the deaf especially if competence has not been developed in any language There is also a challenge of learning resources for Sign language in all schools where the study was

conducted only Sign language dictionary were found being used by teachers and their pupils. As regards the coping strategies, teachers simply learn Sign language from the pupils themselves. They also rely a lot on the chalk board and pointing. Where they come across new signs which are unknown to both the teacher and the pupils, they simply create new signs. However the challenge is that the newly created signs will only be known to that particular class. This finding is in line with studies done by Frolence B, (2015) in Kenya, schlepperegell (2001) in America and Fungai mashawi (2017) in Zimbabwe while have similar results their environment and economic status of the countries are different. Despite these weaknesses, teachers for the deaf can be relevant when they undergo a comprehensive training in Sign language to cover the gape. The implication of the study is that teacher, pupils for the deaf and the society as whole are responsible for learning sign language to improve inclusive society.

5.3. Role of school environment to support teachers in the use of sign language

Responses from the participants indicated that the quality of the school infrastructure had a bearing impact on the learning of Tanzanian Sign language. Both teachers and pupils said that the infrastructure in their school needed improvement for most were in a poor state. The study observed classrooms having minor cracks on the wall which posed Sound interference (ambience noises) that distracted learning process and created low or poor concentration in class. The classroom floors were dilapidated and the school compound was too muddy an indicator that playing was impossible during rainy seasons. The schools sampled lacked basic structure such as a language laboratory and auditory training room which is a key facility for pupils with hearing impairment who require a lot of effort and practice in learning sign language and speech pronunciation. This is supported by previous studies done by Environmental Protection Agency (2000), Kennedy (2001) and McGovern (1998) who revealed that good infrastructure in schools

encourages good performance of learners. Also, findings from Leah (1997), Philips (1997), Fisher (2000) and Lackney (1999) contend that good ventilation, good spaces in classrooms, less noisy places, quality buildings, better lighting and good playground are vital for learners academic achievement in schools.

Researcher's observation on availability, suitability and adequacy of the school infrastructure revealed data as indicated in the table 4.3.2. Hunt and Marshall (2002) argue that for effective teaching and learning of learners with hearing impairment, resources should not only be adequate but also suitable. It is my suggestion that the schools for pupils with hearing impairment should be built at far distance from the main highway because of sound reverberation.

5.4. How the school curriculum affect teachers' perception of sign language use in primary school

Findings from the study indicated that most pupils with hearing impairment are not able to write Sign Language paragraphs using the abstract signs. Therefore lack of sign language instructional materials in the curriculum affected Sign Language use in the schools. The only reference observed was Sign language dictionary in which both teachers and their pupils needed to be oriented on how to use because the pictures shown could not give the right articulation (signing) of the word intended. Also the absence of Sign language syllabus was an indicator that nothing is done in the area of the use of Sign language teaching in Primary schools for the deaf.

The assessment process of the Tanzanian Education system is also an obstacle for deaf children. For instance, the standardized tests are written in Kiswahili or English, which is far beyond the understanding of many deaf children. Even if the deaf children understand the necessary concepts, the language of the tests proves much too difficult for the deaf pupil. As a result, many children end up simply guessing on a test that makes no sense to them. Vocational

studies have to be introduced nearby deaf schools.

The standardized tests are not a valid measure of what the pupils actually know. Ironically, the brightest children in class can often score the lowest on the standardized test while children with very low mental and cognitive functioning can score very well, simply because they were able to guess better. I suggest the Assessment criteria should not base only on knowledge but should also focus on vocational studies. The study reveals that most of the deaf students fail examinations and go back home and become burden to the family and Society at large. Tanzania Institute of Education should develop curriculum instructional materials for the deaf that use modern technology such as TVs, Computers and other visual aids rather than depending on regular Curriculum which proofs failure in Educating deaf pupil.

The study concurs with Odden and Wohlstetter (1995) who revealed that people at the school site must have genuine authority over budget, personnel, and curriculum.

5.5. Implication of the study

The conclusion that can be drawn from the study is that teachers working in the sampled schools had training in special needs education specialized in hearing impairment but had little or no training in Tanzanian Sign language. Also the findings revealed that school management is critical and plays an important role in supporting the learning of Tanzanian Sign language. The findings further indicated that there were challenges like inadequate materials and resources for handling learners with hearing impairment, lack of commitment from teachers, parents and the government not giving enough funding to these schools. It is therefore the government, non-governmental organization, teachers, parents and other stake holders to support and recognize Sign language as media of instructions at school and other gatherings for persons with hearing impairment to build up inclusive society.

5.6. Relevance of Theory of mind of (1978) to the study

This theory emphasizes; that language is a key factor for development of Social understanding and language skills must be developed. The school based factors such as school infrastructure, teachers' competency and use of curriculum instructional materials and the school's management make up the school environment.

Environmental language factor may include mother language and vocabulary, conversations among family members, social economic status and positive attitude towards Sign language use. This theory advocates for use of Sign Language which is the first language of deaf learner's right from formative (0 to 5) years of age.

5.7. Conclusion

Generally, the study was seeking to find out the teacher factors, school environment support and how school curriculum affect learning of Tanzanian sign language in primary schools for learners with hearing impairment. From the study, it is clear that teacher factor, the school infrastructure and curriculum factor are fundamental factor for the learners learning and poor performance, adequate training of the teachers in Tanzanian sign language and the need of curriculum materials to teach learners with hearing impairment should not be undermined as brought out by the findings of the study. The school management does affect the school climate for learning. It is therefore paramount for the school heads to undergo adequate training in educational management and team work is deemed necessary.

5.8. Recommendations

From the research findings, the researcher, guided by the objectives of the study, recommends the following for the purposes of the improvement in the teaching and learning of Tanzanian Sign language among learners with hearing impairment in primary schools.

a) Recommendation on the teachers training in Tanzanian Sign language

The universities, colleges and other institutions training teachers should introduce Tanzanian Sign language as a teaching subject. Of worth noting is the lack of a university or a teachers' training college that has introduced Tanzanian Sign language as a teaching subject alongside other subjects like Mathematics, Kiswahili English and such for this will give more recognition, appreciation, acceptance and standardization of training in Tanzanian Sign language.

b) Recommendations on the school infrastructure

The Ministry of Education Science and technology should inject more funds to the primary schools for learners with hearing impairment due to the unique needs of these learners.

Most children in these schools come from extremely poor backgrounds making it impossible for their parents to inject even a penny to the school. These schools also require specialized resources, materials which are rather expensive. The nature of infrastructure required by these schools is also unique in their own ways. The government, through the Ministry of Education Science and technology should, therefore, not subsidize the fees but fully meet the cost of running these institutions.

c) Recommendation on the instructional materials for Tanzanian Sign language

Tanzania Institute of Education (TIE) should develop curriculum instructional materials that use the modern technology such as TVs and Computers and also seminars of Sign language to

teachers on how to use and to develop some of those resources locally using the available technology in their schools.

5.9. Suggested topics for further research.

Since the research sampled primary schools for learners with hearing impairment in Meru district, the same research can be replicated in other district or regions

- I. Research in the same area can also be done in secondary schools for learner with hearing impairment
- II. Relationship between teacher training in Tanzanian Sign language and performance in the subject.
- III. Factors hindering universities and teachers' training colleges from introducing Tanzanian Sign language as a teaching subject
- IV. Introduction of Tanzanian Sign language as a taught and an examinable subject in mainstream schools

REFERENCES

- Adoyo (2007). Advantages of Sign Language in Deaf Education. In journal for Disability and International Development. *Behinderung und Dritte Welt* No. 1/2004, 24- 29.
- Ainscow, & Mmemenasha, (1998). *The Education of Children with Special Need; Barrier and Opportunities in Central and Eastern Europe*. New York; UNICEF
- Astington, (1993) *The child's discovery of the mind*. Cambridge, MA: Harvard university press.
- Atherton, (2011) *Learning and Teaching: Piaget's Developmental Theory* [online: UK], Accessed on <http://www.learningandteaching.info/learning/piaget.htm>
- Banner, & Wang, (2011) An analysis of the reading strategies used by adult and student deaf readers, in: *Journal of Deaf Studies and Deaf Education* , 16,1, pp. 2- 23
- Barrat, (2008) *Capturing the difference; primary school teacher identity in Tanzania*. *International journal of educational development*,28(5);496-503
- Barrett, (2007). *Beyond the polarization of Pedagogy: Models of classroom practice in Tanzanian Primary Schools'* in *Comparative Education* Vol 43, No.2, 273-294

- Bunyasi, (2010). Relationship between self-esteem and academic achievements for girls with hearing impairments in Kenya (Unpublished Doctoral Dissertation) Kenyatta University, Nairobi, Kenya
- Barnes, (1992) *Disabling Imagery and the Media: An Exploration of the Principles for Media Representations of Disabled People* (Derby, The British Council of Disabled People).
- Barnes, (2001) 'Emancipatory' Disability Research: Project or Process? Centre for Disability Studies, Department of Sociology and Social Policy, University of Leeds, October 2001. Available at: <http://www.leeds.ac.uk/disabilitystudies/>
- Bat-Chava, & Kosciw, (2005) Barriers to HIV/AIDS Knowledge and Prevention among Deaf and Hard of Hearing People in *AIDS Care*, 17, 95, pp. 623
- Bowman, & Peters, (2002). The operations manual; A mechanism for improving the research process, *Nurs Res* 51(2)134-138.
- Charles, (2014), Challenges of teaching deaf students in regular primary and secondary schools The Open University of Tanzania (unpublished)
- Higgs, (2006). Subtitles for the deaf and the hard of hearing on TV: legislation and practice in the UK. Special edition

Jankowski Katherine , (1993) Deaf Empowerment: Gallaudet University press

Kogan, (2011). Respondent-driven sampling with hard-to-reach emerging adults: An introduction and case study with rural African Americans. *Journal of Adolescent Research*, 26, 30–60

Lewis, & Norwich. (2005) *Special teaching for special children? Pedagogies for inclusion* (Maidenhead, Open University Press).

Marschack, (1997) *Raising and Educating a Deaf Child*. (New York: Oxford University Press).

Marschark, & LaRock, (2006) *Assessing Cognition, Communication, and Learning by Deaf Students*, in: C, Hage, B. Charlie, & J, Leybaert (Eds.), *L'evaluation de la Personne Sourde*, (Brussels, Mardaga)

Marschark, & Winston, (2005). *Sign language interpreting and interpreter education: directions for research and practice*. Oxford & New York: Oxford University Press.

Morgan, (2002). *Directions in sign language acquisition*. Amsterdam: Benjamins. Google Scholar, Crossref

- Muzale, (2004). Tanzanian Sign Language (TSL) Dictionary. Dar es Salaam: Languages of Tanzania Project.
- Neuman, (2007). Basics of social research: Qualitative and quantitative approaches (2nd ed.). Boston, MA:
- Ominde, (1964). Kenya education commission report, Nairobi: Government Printer.
Research design Retrieved October 23rd 2017 retrieved at www.snapsurveys.com/
- Sandler (2006). Sign Language and Linguistic Universals. Cambridge, UK: Cambridge University Press.
- Smith, (2007). Introduction to special education (6thed.) Boston, MA: Allyn & Bacon.
- Snell, & Brown, (2006).Instruction of students with severe disabilities.(6th ed.). Columbus, OH: Merrill/Prentice Hall.
- Smith & Kleinow. (2000). Kinematic Correlates of Speaking Rate Changes in Stuttering and Normally Fluent Adults. Journal of Speech, Hearing, and Language Research
- Smith and McGillem, (1995).Spatiotemporal stability and patterning of speech movement Sequences. Experimental Brain Research, 104, 493-501.

Theory of Mind in Alleydog Com. Retrieved October 18th 2017 from www.alleydog.com

Thompson & Tamar Gollan(2005) “Tip of the fingers” experiences by deaf
Signers. *Psychological Science* 16(11), 856–860.

Wolfenson (2000). *The Role of Parents in Students Academic Performance in Bondo Districts*.
Unpublished M, Ed Thesis, Egerton University, Njoro, Kenya.

Appendix A

Kyambogo University

Department of Special Needs Education and Rehabilitation

Observation guide

Introduction: this observation checklist is prepared to record data pertinent for investigating classroom practice using sign language as a medium of instruction in primary schools of pupils with hearing impairment in Arumeru district'

1.1 Back ground of the teacher to observe

a) Name of school _____

b) Class observed _____

c) Date of observation _____

d) Observation begin at _____ to _____

Put "V" mark in box under observation scale

S/N	Categories of the classroom observation	High	Average	Low
1.0	Teacher's ability to present lesson in instructional language			
1.1	Clarity and simplicity of language used to teach			
1.2	Reading and signing skills of teachers			
1.3	Reading and signing skills of pupils			
1.4	Pupils participation in the classroom activity			
1.5	Teachers ability to use method of teaching through the instructional language			
1.6	Classroom activeness and motivated			

1.7	Code-switching			
1.8	Learners use of text books or related sources in instructional language			

Physical environment

1. The comfort of the rooms i.e. floors in class, enough ventilations, air conditioners, lighting in rooms like classes, labs, library, acoustic treated rooms and listening devices etc.
2. Availability and suitability of a library, language laboratory, play ground; auditory training rooms, music rooms etc.
3. Availability and use of curriculum instructional materials in class by teachers during TSL lessons

Observation Check List

1. The signing system used by teachers.
2. The signing system used by the pupils when talking to teachers
3. Signing system used by pupils among themselves
4. Teacher's ability to understand pupil's Sign language
5. Pupils' ability to understand Sign language used by teachers.
6. Teachers' ability to understand the pupils' Sign language at once.
7. Ability to answer questions immediately after a lesson.
8. Ability to express and comprehend abstract and generic concepts.
9. Teaching and learning materials such as charts, manual alphabets, books and other materials
10. Any physical signs of teaching Sign language e.g. time table and other related visual aids

THE END

Appendix B;

Interview guide for trained teachers (specialist)

Age.....Sex.....

1. What is your specialization?
2. How long have you been in this field of special education?
3. How is the performance of Deaf pupils in language particularly Kiswahili and English language? Tick where appropriate. a. good b. average c. poor
4. Give reasons for your answer.....
5. When deaf children are enrolled in primary school, what is the target language of development for the deaf? a. Sign language b. Kiswahili c. English
6. What is the rationale for targeting that particular language?
7. Do you know the language curriculum of the Deaf?
8. If answer to question 7 is yes what are the objectives of the language curriculum?
9. Do you think it is sufficient to cater for the educational needs of the deaf?
10. What is your suggestions about Sign language curriculum?.....
11. In your opinion, what is the importance of early language development in the development of linguistic skills in deaf children?
12. Do you think Sign language should be taught and examined as a subject?
13. Give reasons for your answer.....
13. What kind of Sign language resources do you have and use in teaching pupils for the deaf?
14. What challenges are involved in teaching Sign language as a subject?
15. How do you cope with these challenges when teaching deaf pupils?
16. What would be the benefits of teaching Sign language as subject?

17. What linguistic challenges do you face when teaching children with hearing impairments?

18. In your view what language policy should the government through the Ministry of Education make in order to improve the performance of the deaf in Sign language?



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DEPARTMENT OF SPECIAL NEEDS STUDIES

15 January, 2018

The DEO/DISA/Head teacher/Teacher/Community/Opinion Leader/Church Leader

DISTRICT EXECUTIVE DIRECTOR
ARUMERU DISTRICT
ARUSHA.

Dear Sir/Madam,


RE: INTRODUCTION OF RESEARCH STUDENT ON DATA COLLECTION

This is to introduce the bearer Rev/Dt/Sr/Mr/Ms MUSSA BENNY KANYIKA.
Reg.No: 16/X/13588/GMSN/PE 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, 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,


Dr. Okwaput Stackus
HEAD OF DEPARTMENT

OSW

THE UNITED REPUBLIC OF TANZANIA
PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
MERU DISTRICT COUNCIL

(All Official Letters to be addressed to District Executive Director)

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Kumb. Na. MM/MER/N10/5/98

02/03/2018

Benny K. Mussa
Patandi Teachers College
P.O. BOX 66
DULUTI -ARUSHA.

Ref: PERMISSION TO CONDUCT RESEARCH

Reference is made from the above heading.

The office of the District Executive Director has received your letter dated 27/02/2018 asking permission for conduction of reseach in four primary schools which are Patandi, Moivaro, Leganga and Chemchem respectively.

Permission for conducting the intended reseach is granted to you with the condition that the copy of your findings should be presented to the District Education Officer (Primary) so as to work out with all the shortcomings raised and cement on the areas of strength arised.

Wish you best of lucky in your findings.

Edith I. Temba
Edith I. Temba
FOR: DISTRICT EXECUTIVE DIRECTOR
MERU DISTRICT COUNCIL

Copy:
District Executive Director
MERU DISTRICT COUNCIL

MUNSHAWURI YA MERU